Reliability and validity of the Psychopathy Checklist: Youth Version in Dutch female adolescents

Jacqueline Das [a], Corine de Ruiter [b,*], Theo Doreleijers [c]

[a] *Jongerenhuis Harreveld, The Netherlands*
[b] *Maastricht University, The Netherlands*
[c] *VU University Medical Center, The Netherlands*

ARTICLE INFO

ABSTRACT

In the present study, the reliability and construct validity of the Dutch version of the Psychopathy Check List: Youth Version (*Psychopathie Checklist: Jeugd Versie*; De Ruiter, Kuin, De Vries & Das, 2002) were examined in a sample of female adolescents admitted to a secure treatment institution (*N*=67). The study provides mixed support for the internal reliability of the PCL:YV in female adolescents. Interrater reliability was found to be adequate at the level of factor and total PCL:YV scores. Poor reliability was demonstrated for the behavioral items of the PCL:YV in particular. Finally, the construct validity of the PCL:YV total and factor scores was supported by theoretically meaningful and significant associations with scores on the Minnesota Multiphasic Personality Inventory (MMPI) and the Interpersonal Checklist—Revised (ICL-R). The applicability of PCL:YV items to female adolescents is discussed.

© 2008 Elsevier Inc. All rights reserved.

1. Introduction

An impressive body of evidence has demonstrated that the concept of psychopathy is related to an early onset of antisocial behavior (Forth & Burke, 1998; Hare, Hart, Forth, Harpur, & Williamson, 1998), deviant performance on neurocognitive tasks (e.g., Newman & Schmitt, 1998; Levenston, Patrick, Bradley, & Lang, 2000), high recidivism rates (Salekin, Rogers, & Sewell, 1996; Hemphill, Hare, & Wong, 1998), and a limited response to treatment efforts (Ogloff, Wong, & Greenwood, 1990; Rice, Harris, & Cormier, 1992; Seto & Barbaree, 1999). This has caused researchers to examine the value of extending the psychopathy construct to diverse ethnic and cultural groups (Cooke, Kosson, & Michie, 2001), females (see for a review, Nicholls, Ogloff, Brink, & Spidel, 2005), and youths (see for a review, Farrington, 2005). Several scholars have argued that the identification of psychopathic traits in childhood or adolescence may offer a better understanding of the etiology of the disorder and may provide starting points for targeting interventions (Forth, Hart, & Hare, 1990; Forth & Mailloux, 2000; Frick, Bodin, & Barry, 2000). For this purpose, the Psychopathy Checklist—Revised (PCL-R; Hare, 1991, 2003), the gold standard for the assessment of psychopathy in adults, has been extended for use with adolescents.

The Psychopathy Checklist: Youth Version (PCL:YV; Forth, Kosson & Hare, 2003) closely resembles the PCL-R, but item descriptions were modified to take into account the restricted life experience of the adolescent and to emphasize peer contacts instead of romantic relationships (Forth et al., 2003). Similar to the PCL-R, the items of the PCL:YV are scored on a three-point rating scale (0=item does not apply, 1=item applies to a certain extent, 2=item definitely applies), resulting in a dimensional total score ranging from 0 to 40. In contrast to the PCL-R, there is no designated cut-off score for the PCL:YV. Scores should be interpreted as dimensional ratings of the degree to which an adolescent matches the prototypical psychopath (Forth et al., 2003).

The factor model underlying the PCL:YV is still under investigation. While early studies suggested a similar two factor-structure as the one traditionally thought to underlie adult psychopathy (e.g., Brandt, Kennedy, Patrick, & Curtin, 1997; Forth & Mailloux,

 * Corresponding author. Department of Psychology, Maastricht University, P.O. Box 616, 6200 MD Maastricht, The Netherlands. Tel.: +31 43 3884344.
 E-mail address: Corine.deRuiter@psychology.unimaas.nl (C. de Ruiter).

2000), the PCL:YV manual (Forth et al., 2003) provides evidence of two alternative models that have been proposed for the PCL-R: a modified version of the hierarchical three-factor model (Cooke & Michie, 2001) and a parceled four-factor model (Hare, 2003). Research with the PCL:YV in male adolescents has shown some promising predictive validity. For instance, psychopathic traits were found to be associated with violent recidivism (Forth et al., 1990; Gretton, McBride, Hare, O'Shaughnessy & Kumka, 2001; Gretton, Hare & Catchpole, 2004), a shorter time span between release and re-offense (Brandt et al., 1997; Gretton et al., 2004), and a higher rate of institutional infractions (Brandt et al., 1997; Skeem & Cauffman, 2003).

1.1. Psychopathy in females

The study of psychopathic traits in girls has been stimulated by the fact that antisocial girls are at high risk of adverse long-term outcomes, such as academic difficulties (e.g. school drop out; Bates, Bayles, Bennett, Ridge, & Brown, 1991), emotional problems (Zoccolillo, 1992), marital difficulties and violent relations with men, (Lewis et al., 1991; Robins, 1986), and poor parenting skills (Lewis et al., 1991). In the PCL:YV manual, it is suggested that the PCL:YV can be applied invariantly across gender (Forth et al., 2003). However, this suggestion may not be warranted considering recent research findings in female adults (e.g., Salekin et al., 1997; Vitale & Newman, 2001; Vitale, Smith, Brinkley, & Newman, 2002). The most striking finding is a lower prevalence rate of psychopathy in a noncriminal female sample (Forth, Brown, Hart, & Hare, 1996), as well as offender samples (Grann, 2000; Salekin et al., 1997; Salekin, Rogers, Ustad, & Sewell, 1998; Vitale et al., 2002), than what is typically reported in male forensic samples (Hare, 1991; Hart, Hare, & Forth, 1994). Furthermore, there is equivocal support for the predictive validity of psychopathy scores in females. For instance, psychopathy was found to be only a poor to modest predictor of future criminal acts in one study (Salekin et al., 1998). Richards, Casey and Lucente (2003), however, identified psychopathy as a better predictor of new criminal charges than a combination of other variables, such as the total number of days spent in treatment and the treatment condition a person was admitted for. In addition, psychopathy scores were associated with poor program adherence, removal for serious noncompliance, violent and disruptive infractions and avoidance of urinalysis testing. These findings are in line with those found for male psychopaths (Ogloff et al., 1990; Rice et al., 1992).

Only a few studies have addressed psychopathy in female adolescents. In their investigation of psychopathic traits as measured by the Antisocial Process Screening Device (APSD; Frick & Hare, 2001) in a nonreferred sample of boys and girls ranging in age from 10 to 17, Marsee, Silverthorn, and Frick (2005) demonstrated that there were no gender differences for the callous–unemotional, narcissism and impulsivity dimensions in their associations with aggression and delinquency. However, the psychopathy total score, as well as each psychopathy dimension, was significantly more strongly related to relational aggression in girls than in boys. Contrasting results were found by Odgers, Repucci, and Moretti (2005) in their examination of 125 girls incarcerated at a correctional facility. Using a structural equation modeling procedure, only a moderate relationship between psychopathy scores and concurrent aggression could be identified. More specifically, Factor 2 (Deficient Affective Experience; Cooke & Michie, 2001) was related to physical ($\beta=.24$, $p=.02$) and relational ($\beta=.21$, $p=.01$) types of aggression, but this association disappeared when a rivaling variable (experienced victimization) was included in the analysis. Moreover, it was demonstrated that PCL:YV scores were not predictive of future re-offending in girls, whereas prior victimization experiences were.

1.2. The present study

The present study was designed to examine the interrater reliability and internal reliability (item homogeneity and internal consistency) of the Dutch language version of the Psychopathy Checklist: Youth Version (*Psychopathie Checklist: Jeugd Versie*; PCL: JV; De Ruiter et al, 2002) in female adolescents. The construct validity of PCL:YV scores will be explored by relating them to scores on the Dutch version of the Minnesota Multiphasic Personality Inventory—Adolescent version (MMPI-A; Butcher et al., 1992; Dutch version: van Dijk, Cornelissen, & Derksen, 2000) or the MMPI-2 (Butcher, Dahlstrom, Graham, Tellegen, & Kaemmer, 1989; Dutch version: Derksen, de Mey, Sloore, & Hellenbosch, 1995) when the subject was 19 years or older. In addition, PCL:YV scores will be related to scores on the Dutch revised version of the Interpersonal Checklist (ICL; LaForge & Suczek, 1955; Dutch version: ICL-R; de Jong, Van den Brink, & Jansma, 2000). Previous research in incarcerated male adolescents (Brandt et al., 1997) has demonstrated that PCL:YV scores were positively related to MMPI clinical scales 4 (Psychopathic Deviate) and 9 (Hypomania). Furthermore, psychopathy scores have been found to be positively related to a dominant and hostile interpersonal style, and negatively to interpersonal styles characterized by submissiveness and friendliness in male and female students (Forth et al., 1996) and male and female young offenders (Salekin, Leistico, Trobst, Schrum, & Lochman, 2005). A research question of the present study is whether these findings can be generalized to the present sample of female adolescents in juvenile justice.

2. Method

2.1. Participants

The sample comprised 67 female adolescents admitted to a secure section of *Jongerenhuis Harreveld*, a juvenile justice treatment institution. *Jongerenhuis Harreveld* is a referral institution for the entire nation, which results in the admission of only the most severely disordered girls. The less seriously disturbed girls are taken care of in regional facilities. Most of the girls had been sentenced to a civil supervision order by the court. A supervision order can be imposed when a child's development is psychologically or physically threatened because of incompetent parenting and/or behavioral problems in the child. During the supervision order, the custody of the adolescent becomes the shared responsibility of the parents and the official child protection agency. Girls are also placed in the

institution because a mandatory treatment order has been imposed by the juvenile criminal court. The duration of a mandatory treatment order can vary from 2 to 6 years, depending on the seriousness of the offense, on whether a mental disorder was present at the time of the offense and on whether the parenting situation was severely compromised.

From January 2002 until June 2003, every newly admitted girl ($N=81$) was asked to participate in the study. Six girls refused to participate and for 89% of the remaining girls ($n=67$), written informed consent by the adolescent herself and passive informed consent by her parents was obtained. The study was approved by the relevant ethics boards and administration of the juvenile justice institution.

2.2. Sample characteristics

The mean age at admission was 15.6 years (SD=1.6; range 11–19). In terms of ethnic origin, 72% was European, 6% was Surinamese, 3% was Moroccan, 2% was from the Netherlands Antilles, and 18% had another ethnic background (i.e., Asian, South-American, Turkish, North-African or Russian). Furthermore, 93% of the girls were placed in the institution under a supervision order and 8% under a mandatory treatment order. All four girls with a mandatory treatment order were convicted for a violent offense: manslaughter ($n=1$), murder ($n=2$) and violent robbery ($n=1$). Although girls with a supervision order were not convicted for a criminal offense, they showed serious externalizing behavioral problems, including running away from home, substance abuse and engaging in prostitution, as well as internalizing behavior problems. At the time the present study was finished, eight girls were still in the institution. The mean length of stay of the other 59 girls was 16.08 months (SD=8.2). The girls who did not participate in the study did not differ from girls in the present sample in terms of age ($t=-1.00$, $p=.32$), ethnicity (χ^2 (4)$=2.99$, $p=.60$) and the judicial measure that was imposed by the court (χ^2 (2)$=.66$, $p=.72$). Finally, the girls who participated in the study differed somewhat from the total population of girls who were admitted to a juvenile justice treatment institution in The Netherlands between 1995 and 2005. Specifically, the mean age of the total population ($N=789$) was somewhat lower (14.82, SD=1.24). Furthermore, fewer girls from the overall population (1.4%) were admitted under a mandatory treatment order and more (98.6%) under a supervision order. However, the ethnic make-up of the Harreveld sample was highly similar to that of the general population of girls in juvenile justice institutions: 75.4% European, 7.1% Surinamese, 3.2% Moroccan, 3.0% Netherlands Antilles, and 11.3% had another ethnic background.

2.3. Instruments

2.3.1. PCL:YV
PCL:YV ratings were based on the administration of the Dutch translation (Vertommen, Verheul, De Ruiter and Hildebrand, 2002) of the semi-structured PCL-R interview designed by Hare (1991) together with collateral information available for each adolescent upon admission, including police files, psychiatric and psychological evaluations, and observational reports from previous institutional care. Each subject was rated by two independent raters. For some PCL:YV items, the descriptive criteria were slightly revised from the original Canadian version, because during the consensus meetings it became apparent that some of the scoring criteria were unclear. A clarification was added to the item description in a separate textbox (see Table 1 for an overview of these revisions). The PCL:YV consensus score for all but six girls (9%) was based on the revised criteria. For these six girls, the items were recoded according to the revised criteria.

The traditional two-factor model was used, wherein Factor 1 is characterized by a selfish and callous interpersonal style and a lack of remorse and empathy, and Factor 2 by a chronically unstable and antisocial lifestyle (Harpur, Hakstian, & Hare, 1988).

2.3.2. MMPI-A and MMPI-2
In this study the MMPI-A (Butcher et al., 1992; authorized Dutch version: Van Dijk et al., 2000) was used. Norms are available for adolescents between 13 and 19 years of age. The MMPI-A is a 478-item self-report questionnaire which offers insight into psychopathology and personality traits. The instrument consists of a number of validity scales, which allow insight into the response style of the adolescent (e.g., socially desirable or inconsistent responding). Furthermore, nine clinical scales, 15 content scales and six supplementary scales provide information on the presence or absence of a large variety of psychopathological symptoms. Research has demonstrated that American adolescents score significantly higher on the MMPI-A than Dutch

Table 1
Revisions of item descriptions

PCL:YV item	Revised item description
Item 9: Parasitic orientation	A score of 1 can be given in case the adolescent uses criminal activity to provide financially for himself or does not have any clear means of financial support.
Item 11: Impersonal sexual behavior	For scoring this item, emphasis is placed on infidelity, voluntary prostitution, extremely high frequency of impersonal sexual relationships ('players') and / or a great variety of sexual activity.
Item 13: Lacks goals	Takes into account whether the adolescent has demonstrated to be committed to short term goals.
Item 17: Unstable interpersonal relationships	A score of 1 can be given when there is no clear sign of instability of the relationships, but the relationships can be characterized as quite superficial.
Item 18: Serious criminal behavior	The item description was replaced by the item description of this item in the PCL-R.

adolescents, suggesting Dutch norms should be used (Derksen, van Dijk, & Cornelissen, 2003). Furthermore, the test–retest reliability, based on a one-week interval, of the Dutch MMPI-A was found to be reasonable and the internal consistency of most scales was adequate, except for two clinical scales [Scale 3 (Hysteria) and Scale 5 (Masculinity/femininity)], one content scale (low ambition) and one supplementary scale (MacAndrew Alcoholism). Finally, findings supported the construct validity of the Dutch MMPI-A (Derksen et al., 2003). When a subject was 19 years or older, the MMPI-2 (Butcher et al., 1989; authorized Dutch edition: Derksen et al., 1995) was used (this was the case for 5% of the girls who agreed to complete the MMPI).

In this study, MMPI-A profiles were considered invalid when scores on the TRIN (True Response Inconsistency) and/or VRIN (Variable Response Inconsistency) scales were over 75, and MMPI-2 scores were considered invalid when VRIN scores were over 80. Eighty-eight percent of the girls agreed to complete the MMPI, with 80% of the girls ($n = 54$) having a valid profile. Mean PCL: YV scores for girls with a valid MMPI profile did not differ from girls who either did not fill out the MMPI or had an invalid profile ($t = -1.54$, $p = .25$).

2.3.3. ICL-R

The authorized Dutch translation of the Interpersonal Checklist—Revised (ICL-R; de Jong et al., 2000) was used to map interpersonal behavioral styles. The ICL-R is an updated version of the Interpersonal Checklist (LaForge & Suczek, 1955) and is based on Leary's model of interpersonal behavior (1957). The ICL-R consists of 160 items, which can be rated yes or no. The instrument consists of ten behavioral dimensions: PA (managerial–autocratic), BC (competitive–exploitative), 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). The scores on the ten dimensions can be transformed into a vector score, describing whether the interactional style is predominantly characterized by dominance versus submissiveness, and by hostility versus friendliness. The ICL-R manual provides information on the psychometric properties of the ICL-R in Dutch samples. The intercorrelations and the circumplex analysis support the hypothesized circular arrangement of the interpersonal styles. The test–retest reliability of the interpersonal styles is moderate to good (*ICC* range = .57–.83; de Jong et al., 2000).

ICL-R ratings were obtained from the girls themselves as well as from group leaders (observer ratings) who interact with the girls on a daily basis. Both ratings were used separately in the analyses. The response rates were 87% and 85%, for the group leaders and the girls, respectively.

2.4. Procedure

All raters ($N = 12$) received training in the administration and scoring of the PCL-R by the second author (Corine de Ruiter, Ph.D.) and/or Pascalle van der Wolf, M.Sc., who both had been trained by Drs. Robert D. Hare and David Cooke. The training included a review of the clinical construct of psychopathy and the research literature pertaining to it. Scoring was practiced using videotapes of two Dutch adult forensic psychiatric patients and three adolescent offenders.

In most cases, the participant was interviewed and rated by the supervising psychologist of the ward. This procedure was chosen for several reasons. In the first place, it allowed the psychologist to get to know the client by interviewing her, scoring the PCL:YV and the psychological tests. Secondly, the interview was the first occasion for extended contact and provided a possible basis for a (good) working alliance with the adolescent. Finally, we believe it is important to investigate whether the PCL:YV can be reliably coded by practicing clinicians since this partially determines its ecological validity. The PCL-R interviews were videotaped and after the independent coding of the PCL:YV by two raters, a meeting was planned to obtain a final (consensus) rating for the adolescent. This procedure was chosen in order to maximize information exchange and facilitate precision in scoring.

The administration of the MMPI-A/MMPI-2 and the ICL-R took place in groups of three adolescents at a time, supervised by a psychologist or a research assistant. A standardized introduction to the tests was given and a glossary of difficult terms was used when the girls asked for an explanation of a term used in one of the tests. The supervising psychologist of the ward made sure ICL-R ratings were obtained from the group leaders.

2.5. Statistical analyses

The first set of analyses aimed at providing descriptive information concerning the distribution of PCL:YV ratings in the sample. Second, internal consistency (Cronbach's alpha) and interrater reliability of PCL:YV total scores, factor scores and individual item scores were examined. Because computation of the inter-item correlation requires a score for each item, the value 1 was assigned to omitted items. Interrater reliability was assessed by means of the intraclass correlation coefficient (ICC). The ICC is an appropriate measure for agreement of variables measured on the same ordinal scale (McGraw & Wong, 1996). Because there were two sources of variance (random selection of participants from a larger population and random selection of raters from a larger pool of raters), a two way random effects model was used. The consistency type was used to find out whether the manner of rating by the two raters was comparable (and not identical, because in that case the absolute agreement type would be used). A single measure ICC and an average measure ICC can be distinguished. Average measure ICCs are used when an instrument is coded by multiple raters and the average score will be used as a final score. The single measure ICC is the parameter of choice when the instrument is rated by only one rater. In this study, both ICCs are reported, so it can be established whether the use of multiple raters increases reliability. ICCs can vary from 0 to 1.0. The following categories were used for evaluating the observed interrater reliability: ICC ≥ .75 = excellent; .60 ≤ ICC < .75 = good; .50 ≤ ICC < .60 = moderate; ICC < .50 = poor (Fleiss, 1986). Three cases for which the PCL:YV coding of only one rater was available, were removed from the analyses concerning interrater reliability.

Table 2
Mean item scores, standard deviations, corrected item–total correlations and interrater reliability of PCL:YV items (N=64)

Item description	Mean	(SD)	Reliabilities		
			Item-total r	ICC single rater	ICC average measure
1. Impression management	.95	.76	.39	.37	.54
2. Grandiose sense of self-worth	.83	.72	.39	.33	.50
3. Stimulation seeking	1.70	.49	.39	.41	.58
4. Pathological lying	.95	.65	.58	.41	.59
5. Manipulation for personal gain	1.28	.67	.49	.33	.49
6. Lack of remorse	1.54	.66	.66	.31	.47
7. Shallow affect	1.32	.75	.59	.43	.60
8.Callous or lacking empathy	1.34	.74	.66	.49	.66
9. Parasitic orientation	.83	.75	.35	.34	.51
10. Poor anger control	1.39	.68	.44	.37	.54
11. Impersonal sexual behavior	1.00	.89	.29	.54	.70
12. Early behavior problems	.78	.86	.31	.53	.69
13. Lacks goals	1.02	.76	.34	.45	.62
14. Impulsivity	1.66	.54	.26	.05	.10
15. Irresponsibility	1.77	.46	.41	.30	.46
16. Failure to accept responsibility	1.63	.58	.70	.46	.63
17. Unstable interpersonal relationships	1.46	.59	.48	.08	.15
18. Serious criminal behavior	1.17	.74	.55	.62	.76
19. Serious violations of conditional release	.46	.66	.11	−.01	−.02
20. Criminal versatility	.63	.76	.55	.51	.68

Note. PCL:YV = Psychopathy: Checklist: Youth Version; ICC = intraclass correlation coefficient.

Finally, the relationship between the scores on the PCL:YV, the MMPI-A, the MMPI-2 and the ICL-R was examined by computing Pearson product-moment correlation coefficients.

3. Results

3.1. Individual PCL:YV items

Table 2 presents descriptive statistics, item-total correlations and interrater reliabilities of the individual PCL:YV item scores. PCL:YV mean item scores ranged from 0.46 (serious violations of conditional release) to 1.77 (irresponsibility). The ICCs for the individual items ranged from −.01 (serious violations of conditional release) to .62 (serious criminal behavior) for a single rater (Mdn=.39: see Table 2). Sixteen (out of 20) items could be categorized as having poor interrater reliability according to the guidelines provided by Fleiss (1986). The ICCs for the average of two independent raters ranged from −.02 (serious violations of conditional release) to .76 (serious criminal behavior; Mdn ICC=.56). Based on the average ICC, only six items (of 20) could be categorized as having poor interrater reliability, suggesting improved reliability when the PCL:YV is coded by two raters instead of one.

All but five items (impersonal sexual behavior, early behavior problems, lacks goals, impulsivity and serious violations of conditional release) revealed corrected item-to-total correlations ≥.35, indicating that most items contributed significantly to the PCL:YV total score (see Table 2). Items related to irresponsible behavior had a less strong association with the total score.

3.2. PCL:YV total and factor scores

The kurtosis of the consensus score was .02 (SE=.59). The scores were normally distributed (Kolmogorov–Smirnov Z=.98, p=.30). The consensus score ranged from 7 to 35 with a mean of 23.72 (SD=6.13), a median of 25 and a mode of 25. Table 3 presents the internal consistency and interrater reliability of PCL:YV total and factor scores. The single ICCs for the total and factor scores of the PCL:YV could be categorized as moderate to good (ICC for Factor 1 =.60), whereas average ICCs were good to excellent.

Table 3
Reliabilities of PCL:YV scores (N=64)

Reliability index			
ICC	Total	Single rater	.57
		Average rater	.72
	Factor 1	Single rater	.60
		Average rater	.75
	Factor 2	Single rater	.51
		Average rater	.68
Cronbach's coefficient α			.79
Mean inter-item r			.16

Note. PCL:YV = Psychopathy: Checklist: Youth Version; SD = Standard deviation; Mdn = Median; ICC = intraclass correlation coefficient.

Cronbach's coefficient α for the consensus total score indicated high internal reliability (.79). However, the mean inter-item correlation was .16, which is below the suggested cut-off of .20 in order for a scale to be considered homogeneous (Green, Lissitz, & Mulaik, 1977). When the five items with poor item-to-total correlations (*Impersonal sexual behavior, Early behavior problems, Lacks goals, Impulsivity and Serious violations of conditional release*) were excluded from the analyses, Cronbach's α increased to .83 and the mean inter-item correlation increased to an adequate .23.

3.3. Construct validity

In Table 4 an overview is presented of the correlations between PCL:YV total and factor scores and MMPI clinical scales and subscales. Psychopathic traits in girls as measured by the consensus score on the PCL:YV, appeared to be strongly related to scale 5 (Mf; $r=.41$). Scale 5 is characteristic of women who "... tend to be assertive, competitive, tough-minded and not particularly interested in appearing or behaving as other women do. Instead, they are more likely to be independent, self-confident, spontaneous, dominant and even aggressive in thought and action." (Friedman, Lewak, Nichols & Webb, 2001, p. 317). Furthermore, an absence of somatic complaints (scale 3; Hypochondriasis; scale Hy4; somatic complaints) and an absence of sensitivity in reaction to others (scale Pa2 poignancy) characterized these girls. Finally, inhibition of aggression (Hy5) and social avoidance (Si2) were negatively related to PCL:YV total consensus scores.

With respect to Hare's traditional Factor 1, a significant positive association with scale 5 (Mf; $r=.38$) and significant negative associations with somatic complaints (scale 3; Hy), sensitivity in reaction to others (Pa2 poignancy) and social avoidance (Si2) were

Table 4
Correlations of PCL:YV total and factor scores with MMPI clinical scales and Harris–Lingoes subscales ($N=54$)

MMPI-A or MMPI-2 clinical- or subscale	PCL:YV		
	Total score	Factor 1 score	Factor 2 score
1 (Hypochondriasis)	−.21	−.33*	−.06
D (Depression)	−.11	−.22	−.07
D1 (Subjective depression)	−.05	−.21	.06
D2 (Psychomotor retardation)	−.27	−.21	−.29*
D3 (Physical malfunctioning)	−.23	−.27	−.11
D4 (Mental dullness)	−.03	−.20	.08
D5 (Brooding)	−.10	−.25	.05
3 (Hysteria)	−.27*	−.31*	−.18
Hy1 (Denial of social anxiety)	.18	.25	.09
Hy2 (Need for affection)	−.06	.09	−.15
Hy3 (Lassitude–malaise)	−.17	−.30*	−.09
Hy4 (Somatic complaints)	−.28*	−.05	−.39**
Hy5 (Inhibition of aggression)	−.28*	−.05	−.39**
4 (Psychopathic deviate)	.13	−.03	.22
Pd1 (Familial discord)	−.00	−.07	.02
Pd2 (Authority problems)	.23	.06	.33**
Pd3 (Social imperturbability)	.22	.31*	.11
Pd4 (Social alienation)	−.02	−.14	.10
Pd5 (Self alienation)	.04	−.14	.13
5 (Masculinity–femininity)	.41**	.38**	.27
6 (Paranoia)	−.13	−.25	.03
Pa1 (Ideas of external influence)	−.09	−.18	.06
Pa2 (Poignancy)	−.32*	−.37**	−.14
Pa3 (Moral virtue)	−.01	.08	−.13
7 (Psychasthenia)	−.11	−.24	−.00
8 (Schizophrenia)	−.13	−.26	.01
Sc1 (Social alienation)	−.14	−.23	−.00
Sc2 (Emotional alienation)	−.13	−.25	−.01
Sc3 (Lack of ego mastery–cognitive)	−.17	−.30*	−.02
Sc4 (Lack of ego mastery–conative)	−.07	−.23	.05
Sc5 (Lack of ego mastery–defective inhibition)	−.10	−.20	−.01
Sc6 (Sensorimotor dissociation)	−.11	−.19	−.05
9 (Hypomania)	.00	−.07	.12
Ma1 (Amorality)	−.03	−.11	.12
Ma2 (Psychomotor acceleration)	−.00	−.17	.11
Ma3 (Imperturbability)	.21	.31*	.17
Ma4 (Ego inflation)	−.02	.02	.01
0 (Social introversion)	−.17	−.22	−.10
Si1 (Shyness)	−.08	−.14	−.06
Si2 (Social avoidance)	−.35*	−.30*	−.32*
Si3 (Self/other alienation)	−.08	−.21	.06

Note. PCL:YV = Psychopathy Checklist: Youth Version; MMPI = Minnesota Multiphasic Personality Inventory.
*$p<.05$, two-tailed.
**$p<.01$ level, two-tailed.

Table 5
Correlations of PCL:YV total and factor scores and MMPI Content and Supplementary scales ($N = 54$)

MMPI-A or MMPI-2 scale	PCL:YV		
Content scales	Total score	Factor 1 score	Factor 2 score
Anxiety	−.10	−.24	−.03
Obsessiveness	−.08	−.18	−.00
Depression	−.11	−.25	.01
Health concerns	−.22	−.33*	−.05
Alienation	−.13	−.19	−.14
Bizarre mentation	−.15	−.23	−.04
Anger	.13	−.08	.33*
Cynicism	−.08	−.15	−.01
Conduct problems	.18	.01	.31*
Low self-esteem	−.20	−.36**	−.04
Low ambition	.08	−.06	.17
Social discomfort	−.20	−.24	−.16
Family problems	−.01	−.07	.01
School problems	.05	−.18	.24
Negative treatment indicators	−.07	−.25	.14
Supplementary scales			
Anxiety	−.17	−.28*	−.04
Repression	−.12	−.01	−.24
MacAndrew alcoholism	.16	−.04	.27
Alcohol/drug problem acknowledgement	.13	−.13	.26
Alcohol/drug problem proneness	.26	.01	.38**
Immaturity	.08	−.14	.29*

Note. PCL:YV = Psychopathy Checklist: Youth Version; MMPI = Minnesota Multiphasic Personality Inventory.
*$p < .05$, two-tailed.
**$p < .01$ level, two-tailed.

demonstrated. Furthermore, significant relations with other specific MMPI scales could be identified. First, the results revealed that the interpersonal and affective domains of psychopathy were related to social imperturbability (Pd3; Ma3), suggesting that these girls have little concern about the opinions, values and attitudes of others. Second, girls with a high Factor 1 score were characterized by an absence of bodily complaints (scale 1; Hypochondriasis) and an absence of feelings of weakness, tiredness and loss of interest in life (Hy3). Finally, high PCL:YV Factor 1 scores were inversely related to the disruption of information processing by the intrusion of troubling thoughts (Sc3).

Associations between Hare's traditional Factor 2 and MMPI scales could also be identified. For instance, Factor 2 was significantly positively related to authority conflict (Pd2) and significantly negatively related to psychomotor retardation (D2), somatic complaints (Hy4), inhibition of aggression (Hy5) and social avoidance (Si2).

The results concerning the relationship between PCL:YV scores and MMPI content and supplementary scales are presented in Table 5. Factor 1 scores were inversely related to health concerns, low self-esteem and anxiety. Furthermore, girls high on Factor 2 demonstrated an elevation on the anger (ANG) and conduct problems scales (A-con), while showing proneness to alcohol or drug problems (PRO) and psychological immaturity (IMM).

Table 6
Correlations of PCL:YV total and factor scores, ICL-R self ratings ($N = 55$), and ICL-R observer ratings ($N = 57$)

ICL-R interpersonal style	ICL-R self PCL:YV			ICL-R mentor PCL:YV		
	Total score	Factor 1 score	Factor 2 score	Total score	Factor 1 score	Factor 2 score
PA (managerial–autocratic)	.11	.17	−.04	.03	.20	−.09
BC (competitive–exploitative)	.21	.30*	.05	.04	.22	−.11
DE (aggressive–blunt)	.25	.21	.16	.22	.04	.19
FG (distrustful–skeptical)	.21	.08	.29*	.05	−.10	.13
nFnG (reserved–aloof)	−.09	−.12	.07	−.23	−.28*	−.10
HI (modest–self-efficacing)	−.17	−.36**	−.09	−.18	−.21	−.07
JK (docile–dependent)	−.19	−.20	−.08	−.03	−.11	.08
LM (cooperative–overconventional)	−.27*	−.08	−.33*	.01	.12	−.04
NO (responsible–overgenerous)	−.16	−.04	−.25	−.02	.05	−.06
nNnO (extravert–gregarious)	−.03	.12	−.14	.21	.27	.21
Dominance	.12	.32*	−.14	.15	.29*	.00
Affiliation	−.28*	−.14	−.30*	−.01	.06	−.05

Note. PCL:YV = Psychopathy Checklist: Youth Version; ICL-R = Interpersonal Checklist—Revised.
*$p < .05$, two-tailed.
**$p < .01$ level, two-tailed.

Table 6 displays the results pertaining to the ICL-R self and group leader ratings in relation to the PCL:YV. A significant negative association was found between the PCL:YV Factor 1 score and a self-reported reserved–aloof interpersonal style, whereas a positive association was demonstrated with the dominance vector. Furthermore, the PCL:YV Factor 1 score was significantly associated with a group leader-rated competitive–exploitative and overall dominant interpersonal style, while PCL:YV total scores were negatively related to a cooperative–overconventional and overall friendly interpersonal style. Finally, Factor 2 scores were associated with a distrustful and skeptical interpersonal style, and inversely related to a cooperative–overconventional and friendly interpersonal style as rated by the group leaders.

4. Discussion

4.1. Reliability

Mixed support was found for the reliability of the PCL:YV in female adolescents. With regard to internal consistency, Cronbach's α (.79) was found to be excellent, but the mean inter-item correlation was relatively low (.16). Furthermore, item-total correlations were demonstrated to be adequate (≥.35) for all but five items. The items *Impersonal sexual behavior*, *Early behavior problems*, *Lacks goals, Impulsivity* and *Serious violations of conditional release* did not contribute significantly to the PCL:YV total score. Excluding these items from the analyses led to an improved Cronbach's α and the mean inter-item correlation then exceeded the suggested criterion of .20 (Green et al., 1977), indicating adequate homogeneity of the PCL:YV. Single rater ICCs indicated moderate to good interrater reliability of the PCL:YV total and factor scores. The reliability improved considerably when the PCL:YV was coded by two independent raters, a finding which is in line with previous research (Vitale et al., 2002). A poor interrater reliability was found for most of the individual items.

Several explanations may be offered for the failure to provide convincing evidence for the reliability of the PCL:YV in our female adolescent sample. First, the age-appropriateness of some of the PCL:YV item descriptions has been called into question because of the downward extension of PCL-R items that was used in the development of the PCL:YV (Hart, Watt, & Vincent, 2002; Seagrave & Grisso, 2002). The PCL:YV manual seems to lack clear instructions as to what should be considered psychopathic trait-like and what should be seen as transient, state-like characteristics that are a normal part of adolescence. In addition, the restricted life experience of adolescents complicates the coding of some of the items. When there is evidence of a *pattern* of behavior, one can be more sure that certain behaviors are trait-like (which is often the case with adults, who have just had a longer lifetime to show the behaviors) than when the time frame is short (as is the case with adolescents). The poor interrater reliability at the item level may be partly the result of this indistinctness of PCL:YV item descriptions.

Second, the improved internal consistency after the exclusion of five behaviorally oriented items suggests that these PCL:YV items may not be appropriately defined for diagnosing psychopathic traits in girls. Several authors suggested that the DSM-IV diagnostic criteria for Conduct Disorder (CD) appear to be more relevant to boys because they emphasize overt aggressive and antisocial behavior, while more covert types of antisocial behavior, such as sexual promiscuity, prostitution, frequent lying and manipulativeness are more characteristic of girls (Pepler, Madsen, Webster, & Levene, 2005; Odgers & Moretti, 2002). Similarly, there may be gender bias in the diagnosis of psychopathy (Cale & Lilienfeld, 2002). Recently, Cooke, Michie, Hart and Clark (2004) used structural equation modeling to evaluate the structure of the PCL-R. They compared two models, namely a measurement model, which includes the antisocial behavior items of the PCL-R as primary symptoms, and a causal model, which includes these items as secondary symptoms or consequences of psychopathy. The causal model was demonstrated to be superior to the measurement model on several indices of model fit. When (overt) antisocial behavior is a consequence of core psychopathic traits, it may well be that it is a typical male but not a female manifestation of core psychopathic traits. This suggests that it may be necessary to adjust the behavioral criteria of the PCL:YV to take into account gender-specific expressions of antisocial behavior.

4.2. Validity

Theoretically significant associations between the PCL:YV, MMPI and ICL-R provided support for the construct validity of the PCL:YV total and factor scores. According to Fiske and Campbell (1992), validity coefficients regarding construct validity are often modest, typically in the .30 to .50 range. By these standards, a strong association was found between psychopathy scores and MMPI-scale 5 (Mf), which characterized these girls as assertive, competitive, tough-minded, self-confident, dominant and aggressive. Furthermore, the absence of physical complaints, social avoidance, low self-esteem and anxiety, and the presence of behavioral problems (i.e., anger proneness, problems related to alcohol and drug use, disinhibition of aggression) and little concern about the values of others were characteristic of these girls. Factor 1 was mainly related to the absence of social avoidance, somatic complaints and feelings of lethargy, while Factor 2 was related to behavioral problems like authority conflict and disinhibition of aggression. We could not replicate the significant associations between psychopathy scores and scale 4 and a combination of scales 4 and 9 of the MMPI, demonstrated previously in a sample of male adolescent offenders (Brandt et al., 1997).

The associations between the PCL:YV and the ICL-R self-report and observer ratings demonstrated that girls scoring high on the PCL:YV had a dominant and hostile interpersonal style. Factor 1 was especially associated with interpersonal dominance. These results are in line with findings from a study conducted by Forth et al. (1996), who demonstrated in a noncriminal adult female sample, that psychopathy scores were associated with a self-reported and observed dominant, arrogant, calculating and cold-hearted interpersonal style. In summary, our study provides initial evidence for the concurrent and divergent validity of the Dutch PCL:YV in female adolescents.

4.3. Limitations

A first limitation of our study concerns the relatively small sample size of 67 girls. A larger sample might have increased the reliability estimates. However, given the paucity of research on psychopathic traits in female adolescents, even a study with a sample of limited size such as the present one, can make a contribution to the knowledge base.

Secondly, in the present study PCL:YV consensus ratings were used in the analyses concerning construct validity, which is in contrast to previous studies, which used psychopathy scores obtained from a single rater. We believe a consensus rating may be advisable for obtaining a reliable psychopathy score in female adolescents, because of the exchange of information and the integration of this information during the consensus meeting, an approach that has also been advocated by Cooke et al. (2004).

Thirdly, the sample was derived from a single Dutch juvenile justice treatment institution, thereby limiting generalization. Nevertheless, a comparison with demographic characteristics of the total population of girls admitted to a secure institution, indicates that our group is largely representative.

4.4. Clinical implications

The present findings regarding reliability suggest that PCL:YV item descriptions may have to be modified to take into account gender-specific manifestations of psychopathy. In the meantime, clinicians should be reticent about using the PCL:YV with female adolescents in clinical practice. Only factor and total scores should be used, whereas item scores are not reliable. Furthermore, a consensus meeting between independent raters is recommended to increase the reliability of PCL:YV scores in girls. Despite the present shortcomings in reliability, our findings do provide initial evidence of the construct validity of the PCL:YV for measuring psychopathic traits in girls. Although much is still unknown about the possible long-term consequences of these traits in girls (e.g., risk of antisocial personality disorder, treatment responsiveness), taking into account their psychopathic characteristics may prove an advancement in the delivery of treatment interventions.

Acknowledgment

References

Bates, J. E., Bayles, K., Bennett, D. S., Ridge, B., & Brown, M. M. (1991). Origins of externalizing behavior: Problems at eight years of age. In D. J. Pepler, & K. H. Rubin (Eds.), *The development and treatment of childhood aggression* (pp. 93–120). Hillsdale, NJ: Erlbaum.

Brandt, J. R., Kennedy, W. A., Patrick, C. J., & Curtin, J. (1997). Assessment of psychopathy in a population of incarcerated adolescent offenders. *Psychological Assessment*, *9*, 429–435.

Butcher, J. N., Dahlstrom, W. G., Graham, J. R., Tellegen, A., & Kaemmer, B. (1989). *Minnesota Multiphasic Personality Inventory-2 (MMPI-2): Manual for Administration and scoring.* Minneapolis: University of Minnesota Press.

Butcher, J. N., Williams, C. L., Graham, J. R., Archer, R. P., Tellegen, A., Ben-Porath, Y. S., et al. (1992). MMPI-A (Minnesota Multiphasic Personality Inventory—Adolescent): Manual for administration, scoring, and interpretation Minneapolis: University of Minnesota Press.

Cale, E. M., & Lilienfeld, S. O. (2002). Histrionic personality disorder and antisocial personality disorder: Sex-differentiated manifestations of psychopathy? *Journal of Personality Disorders*, *16*, 52–72.

Cooke, D. J., Kosson, D., & Michie, C. (2001). Psychopathy and ethnicity: Structural, item, and test generalizability of the Psychopathy Checklist—Revised (PCL-R) in Caucasian and African-American participants. *Psychological Assessment*, *13*, 531–542.

Cooke, D. J., & Michie, C. (2001). Refining the construct of psychopathy: Towards a hierarchical model. *Psychological Assessment*, *13*, 171–188.

Cooke, D. J., Michie, C., Hart, S. D., & Clark, D. A. (2004). Reconstructing psychopathy: clarifying the significance of antisocial and socially deviant behavior in the diagnosis of psychopathic personality disorder. *Journal of Personality Disorders*, *18*, 337–357.

de Jong, C. A. J., van den Brink, W., & Jansma, A. (2000). *ICL-R: Handleiding bij de vernieuwde versie van de Interpersonal Checklist (ICL). [Manual of the revised Dutch version of the Interpersonal Checklist (ICL)].* Sint Oedenrode, the Netherlands: Novadic.

de Ruiter, C., Kuin, N., de Vries, J., & Das, J., (2002). Psychopathie Checklist: Jeugd Versie: Geautoriseerde Nederlandse vertaling. [Psychopathy Checklist: Youth Version: Authorized Dutch translation]. Unpublished research version.

Derksen, J., de Mey, H., Sloore, H., & Hellenbosch, G. M. (1995). *MMPI-2: Handleidingbij afname, scoring en interpretatie. [Manual for the assessment, scoring and interpretation of the Dutch MMPI-2.].* Nijmegen: Pen Tests Publishers.

Derksen, J., van Dijk, J., & Cornelissen, A. (2003). De Nederlandse adolescentenversie van de MMPI. [The Dutch language version of the MMPI for adolescents.]. *De Psycholoog*, *38*, 304–311.

Farrington, D. P. (2005). The importance of child and adolescent psychopathy. *Journal of Abnormal Child Psychology*, *33*, 489–497.

Fiske, D. W., & Campbell, D. T. (1992). Citations do not solve problems. *Psychological Bulletin*, *112*, 393–395.

Fleiss, J. L. (1986). *The design and analysis of clinical experiments.* New York: Wiley.

Forth, A. E., Brown, S. L., Hart, S. D., & Hare, R. D. (1996). The assessment of psychopathy in male and female noncriminals: Reliability and validity. *Personality and Individual Differences*, *20*, 531–543.

Forth, A. E., & Burke, H. C. (1998). Psychopathy in adolescence: Assessment, violence, and developmental precursors. In D. J. Cooke, A. E. Forth, & R. D. Hare (Eds.), *Psychopathy: Theory, research, and implications for society* (pp. 205–229). Dordrecht, The Netherlands: Kluwer.

Forth, A. E., Hart, S. D., & Hare, R. D. (1990). Assessment of psychopathy in male young offenders. *Psychological Assessment: A Journal of Consulting and Clinical Psychology*, *2*, 342–344.

Forth, A. E., Kosson, D., & Hare, R. D. (2003). *The Psychopathy Checklist: Youth Version.* Toronto, Ontario: Multi-Health Systems.

Forth, A. E., & Mailloux, D. L. (2000). Psychopathy in youth: What do we know? In C. B. Gacono (Ed.), *The clinical and forensic assessment of psychopathy: A practitioner's guide* (pp. 25–54). Mahwah, NJ: Lawrence Erlbaum Associates.

Frick, P. J., Bodin, S. D., & Barry, C. T. (2000). Psychopathic traits and conduct problems in community and clinic-referred samples of children: Further development of the Psychopathy Screening Device. *Psychological Assessment*, *12*, 382–393.

Frick, P. J., & Hare, R. D. (2001). *Antisocial process screening device: Technical manual.* New York: Multi Health Systems.

Friedman, A. F., Lewak, R., Nichols, D. S., & Webb, J. T. (2001). *Psychological assessment with the MMPI-2.* Maywah, New Jersey: Lawrence Erlbaum.

Grann, M. (2000). The PCL-R and gender. *European Journal of Psychological Assessment, 16,* 147–149.

Green, S. B., Lissitz, R. W., & Mulaik, S. A. (1977). Limitations of coefficient alpha as an index of unidimensionality. *Educational and Psychological Measurement, 37,* 827–838.

Gretton, H., Hare, R. D., & Catchpole, R. (2004). Psychopathy and offending from adolescence to adulthood: A ten-year follow-up. *Journal of Consulting and Clinical Psychology, 72,* 636–645.

Gretton, H. M., McBride, M., Hare, R. D., O'Shaughnessy, R., & Kumka, G. (2001). Psychopathy and recidivism in adolescent sex offenders. *Criminal Justice and Behavior, 28,* 427–449.

Hare, R. D. (1991). *The Hare Psychopathy Checklist—Revised.* Toronto, Ontario Canada: Multi-Health Systems.

Hare, R. D. (2003). *Manual for the Revised Psychopathy Checklist,* 2nd ed. Toronto, Ontario, Canada: Multi-Health Systems.

Hare, R. D., Hart, S. D., Forth, A. E., Harpur, T. J., & Williamson, S. E. (1998). Psychopathic personality characteristics: Development of a criteria set for use in the DSM-IV antisocial personality disorder field trial. In T. A. Widiger, A. J. Frances, H. A. Pincus, R. Ross, M. B. First, W. Davis, & M. Kline (Eds.), *DSM-IV sourcebook* (pp. 331–341). Washington, DC: American Psychiatric Association.

Harpur, T. J., Hakstian, R., & Hare, R. D. (1988). Factor structure of the Psychopathy Checklist. *Journal of Consulting and Clinical Psychology, 56,* 741–747.

Hart, S. D., Hare, R. D., & Forth, A. E. (1994). Psychopathy as a risk marker for violence: Development and validation of a screening version of the Revised Psychopathy Checklist. In J. Monahan, & H. J. Steadman (Eds.), *Violence and mental disorder: Developments in risk assessment* (pp. 81–99). Chicago: University of Chicago Press.

Hart, S. D., Watt, K. A., & Vincent, G. M. (2002). Commentary on Seagrave and Grisso: Impressions of the state of the art. *Law and Human Behavior, 26,* 241–245.

Hemphill, J. F., Hare, R. D., & Wong, S. (1998). Psychopathy and recidivism: A review. *Legal and Criminological Psychology, 3,* 141–172.

LaForge, R., & Suczek, R. F. (1955). The interpersonal dimension of personality: III. An interpersonal checklist. *Journal of Personality, 24,* 94–112.

Levenston, G. K., Patrick, C. J., Bradley, M. M., & Lang, P. J. (2000). The psychopath as observer: Emotion and attention in picture processing. *Journal of Abnormal Psychology, 109,* 373–385.

Lewis, D. O., Yeager, C. A., Cobham-Portorreal, C. S., Klein, N., Showater, C., & Anthony, A. (1991). A follow-up of female delinquents: Maternal contributions to the perpetuation of deviance. *Journal of the American Academy of Child and Adolescent Psychiatry, 30,* 197–201.

Marsee, M. A., Silverthorn, P., & Frick, P. J. (2005). The association of psychopathic traits with aggression and delinquency in non-referred boys and girls. *Behavioral Sciences and the Law, 23,* 803–817.

McGraw, K. O., & Wong, S. P. (1996). Forming inferences about some intraclass correlation coefficients. *Psychological Methods, 1,* 30–46.

Newman, J. P., & Schmitt, W. (1998). Passive avoidance in psychopathic offenders: A replication and extension. *Journal of Abnormal Psychology, 107,* 527–532.

Nicholls, T. L., Ogloff, J. R. P., Brink, J., & Spidel, A. (2005). Psychopathy in women: A review of its clinical usefulness for assessing risk for aggression and criminality. *Behavioral Sciences and the Law, 23,* 779–802.

Odgers, C. L., & Moretti, M. M. (2002). Aggressive and antisocial girls: Research update and challenges. *International Journal of Forensic Mental Health, 1,* 103–119.

Odgers, C. L., Repucci, N. D., & Moretti, M. (2005). Nipping psychopathy in the bud: An examination of the convergent, predictive and theoretical utility of the PCL: YV among adolescent girls. *Behavioral Sciences and the Law, 23,* 743–763.

Ogloff, J., Wong, S., & Greenwood, A. (1990). Treating criminal psychopaths in a therapeutic community program. *Behavioral Sciences and the Law, 8,* 181–190.

Pepler, D. J., Madsen, K. C., Webster, C., & Levene, K. S. (Eds.). (2005). *The development and treatment of girlhood aggression* Mahwah, NJ: Lawrence Erlbaum Associates.

Rice, M. E., Harris, G. T., & Cormier, C. A. (1992). An evaluation of a maximum security therapeutic community for psychopaths and other mentally disordered offenders. *Law and Human Behavior, 16,* 399–412.

Richards, H. J., Casey, J. O., & Lucente, S. W. (2003). Psychopathy and treatment response in incarcerated female substance abusers. *Criminal Justice and Behavior, 30,* 251–276.

Robins, L. N. (1986). The consequences of conduct disorder in girls. In D. Olweus, J. Block, & M. Radke-Yarrow (Eds.), *Development of antisocial and prosocial behavior: Research, theories, and issues* (pp. 385–414). Orlando, FL: Academic Press.

Salekin, R. T., Leistico, A. R., Trobst, K. K., Schrum, C. L., & Lochman, J. (2005). Adolescent Psychopathy and personality theory — The interpersonal circumplex: Expanding evidence of a nomological net. *Journal of Abnormal Child Psychology, 33,* 445–460.

Salekin, R., Rogers, R., & Sewell, K. (1996). A review and meta-analysis of the Psychopathy Checklist and Psychopathy Checklist—Revised: Predictive validity of dangerousness. *Clinical Psychology: Science and Practice, 3,* 203–215.

Salekin, R., Rogers, R., & Sewell, K. (1997). Construct validity of psychopathy in a female offender sample: A multitrait–multimethod evaluation. *Journal of Abnormal Psychology, 106,* 576–585.

Salekin, R., Rogers, R., Ustad, K. L., & Sewell, K. (1998). Psychopathy and recidivism among female inmates. *Law and Human Behavior, 22,* 109–128.

Seagrave, D., & Grisso, T. (2002). Adolescent development and the measurement of juvenile psychopathy. *Law and Human Behavior, 26,* 219–239.

Seto, M. C., & Barbaree, H. E. (1999). Psychopathy, treatment behavior, and sex offender recidivism. *Journal of Interpersonal Violence, 14,* 1235–1248.

Skeem, J. L., & Cauffman, E. (2003). Views of the downward extension: Comparing the Youth Version of the Psychopathy Checklist with the Youth Psychopathic traits Inventory. *Behavioral Sciences and the Law, 21,* 737–770.

Van Dijk, J. S., Cornelissen, A. J., & Derksen, J. (2000). *MMPI-A, handleiding bij afname, scoring en interpretatie. [Manual for the assessment, scoring and interpretation of the Dutch MMPI-A.].* Nijmegen: PEN Tests Publishers.

Vertommen, H., Verheul, R., de Ruiter, C., & Hildebrand, M. (2002). *Handleiding bij de herziene versie van Hare's Psychopathie Checklist. [Manual of the Dutch version of the revised version of Hare's Psychopathy Checklist].* Lisse, the Netherlands: Swets Test Publishers.

Vitale, J. E., & Newman, J. P. (2001). Response perseveration in psychopathic women. *Journal of Abnormal Psychology, 110,* 644–647.

Vitale, J. E., Smith, S. S., Brinkley, C. A., & Newman, J. P. (2002). The reliability and validity of the Psychopathy Checklist—Revised in a sample of female offenders. *Criminal Justice and Behavior, 29,* 203–231.

Zoccolillo, M. (1992). Co-occurence of conduct disorder and its adult outcomes with depressive and anxiety disorders: A review. *Journal of the American Academic of Child and Adolescent Psychiatry, 31,* 547–556.