

Adolescent Psychopathy in Relation to Delinquent Behaviors, Conduct Disorder, and Personality Disorders

REFERENCE: Myers, W. C., Burket, R. C., and Harris, H. E., "Adolescent Psychopathy in Relation to Delinquent Behaviors, Conduct Disorder, and Personality Disorders," *Journal of Forensic Sciences*, JFSCA, Vol. 40, No. 3, May 1995, pp. 436-440.

ABSTRACT: The purpose of this study was to explore the relationship between psychopathy as measured by The Revised Psychopathy Checklist (PCL-R) and delinquent behaviors, conduct disorder, and personality disorders in psychiatrically hospitalized adolescents.

Thirty adolescent inpatients were assessed for psychopathy, delinquent behaviors, DSM-III-R Axis I disorders, and personality disorders using the Revised Psychopathy Checklist (PCL-R), the Diagnostic Interview for Children and Adolescents (DICA-R), and the Structured Interview for DSM-III-R Personality Disorders (SIDP-R).

Significant relationships were noted between elevated PCL-R psychopathy scores and delinquent behaviors, conduct disorder, and narcissistic personality disorder.

The validity of the PCL-R as a measure of psychopathy in adolescence was supported. Longitudinal studies are needed to clarify the clinical application of the PCL-R to adolescent populations.

KEYWORDS: psychiatry, psychopathy, delinquency, conduct disorder, personality disorders

Psychopathic personality, antisocial personality disorder, and psychopathy are some of the closely related terms that have arisen over the past century to describe the antisocial/criminal personality. Historically, psychopathic personality referred to those persons who did not appear to have a mental disorder proper, yet were not considered entirely sane because their emotions and behaviors placed them in conflict with society's mores and rules [1]. In contrast, DSM-IV [2] takes a more developmental view in noting that the essential feature of antisocial personality disorder "is a pervasive pattern of disregard for, and violation of, the rights of others that begins in childhood or early adolescence and continues into adulthood." Finally, psychopathy refers to a larger constellation of deviant personality traits and behaviors including but not limited to lying, insincerity, manipulation of others, superficial charm, poverty in interpersonal and affective relations, unreliability, lack of remorse, poor insight, antisocial acts, and failure to learn from experience [1,3,4]. Hare [4] has developed a psychological instrument operationalizing psychopathy—the Revised Psychopa-

thy Checklist (PCL-R). This instrument is based on the clinical construct of psychopathy best characterized by H. Cleckley in his landmark text *The Mask of Sanity* [1], and allows for a dimensional assessment of psychopathy.

The aforementioned terminology has generally been reserved for adults. DSM-IV [2] continues this practice, as did its predecessor DSM-III-R, by requiring that an individual must be at least 18 years old to receive the diagnosis of antisocial personality disorder. However, recent and not so recent exceptions do exist in the application of these terms to youths. For example, the Juvenile Psychopathic Institute was established in Chicago in 1909, and essentially became America's first child guidance clinic [5]; its name officially declared a relationship between psychopathy and children. It is important to recognize that this earlier use of the term "psychopathic" referred to a variety of childhood emotional and behavior disturbances, and not just to youth with antisocial features. Of late, increasing research efforts have been directed towards investigating adolescent psychopathy [6]. Raine et al. [7], from their research on psychopathy in adolescents, cogently argue that there are a subgroup of adolescents with severe conduct disorder who have clinical and neuropsychological features similar to those found in adult psychopaths, and that it is arbitrary to postpone assigning this diagnosis simply because a youth has not yet reached his 18th birthday.

A sizable percentage of youth admitted to psychiatric hospitals manifest psychopathic characteristics in tandem with conduct-disordered behaviors. The diagnostic criteria for DSM-III-R conduct disorder consist of a group of behaviors that are in violation of social norms and the rights of others. Hence, conduct disorder is defined in terms of specific behaviors, whereas the concept of psychopathy in adolescents as measured by the PCL-R refers to a measurement of personality features. It should be noted that only one of the 13 DSM-III-R conduct disorder criteria ("often lies") are directly addressed by the PCL-R ("pathological lying"); the PCL-R instead focuses primarily on characterological qualities (personality). Symptoms of these two conditions are usually first evident in childhood; fortunately, most antisocial children do not develop antisocial personality disorders as adults [8,9,10].

The boundaries in terms of psychopathology between hospitalized adolescents, youths with conduct disorder, and "delinquent" youth are often unclear; the common denominator appears to be multiple and serious psychiatric symptoms [11,12]. Moreover, a spectrum of personality disorder diagnoses appears to exist in hospitalized adolescents [13,14]. As with psychopathy, such personality disturbances in youths are believed to manifest early in development, and to then persist throughout most of the life span. Personality disorder diagnoses, with the exception of antisocial

Received for publication 2 Dec. 1993; revised manuscript received 5 July and 31 Aug. 1994; accepted for publication 1 Sept. 1994.

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personality disorder, can be applied to adolescents, provided that a pervasive and persistent maladaptive personality pattern can be identified [2].

Forth et al. [15] found a correlation between PCL scores (the original Psychopathy Checklist [13]) and the number of conduct disorder symptoms present in a sample of male young offenders. Two other earlier studies documented a relationship between elevated PCL scores and the diagnosis of DSM-III conduct disorder in prison inmates [16,17]. Our first hypothesis was that PCL-R scores would be positively associated with both delinquent behaviors and the diagnosis of conduct disorder in the study population at hand.

In adults, PCL-R scores have been positively correlated with antisocial, narcissistic, and histrionic personality disorders, and negatively correlated with avoidant and dependent personalities [18]. In addition to the adult literature describing this relationship, McManus et al. [19] found that roughly one-half of seriously delinquent incarcerated adolescents with DSM-III conduct disorder also met DSM-III criteria for borderline personality disorder. Myers et al. [14] noted that adolescents with conduct disorder tended to have a higher prevalence of histrionic and passive aggressive personality disorders than those without conduct disorder. Furthermore, the association between certain personality disorders (such as narcissistic and borderline) and conduct disorder has been clinically supported by the authors' experience in working with psychiatric inpatient and delinquent adolescent populations. Our second hypothesis was that there would be a correlation between higher psychopathy scores and certain personality disorders in hospitalized adolescents, specifically those with DSM-III-R "Cluster B" diagnoses (borderline, histrionic, and narcissistic), and a negative correlation between PCL-R scores and avoidant and dependent personality disorders.

No previous investigations using the PCL-R have been carried out in an adolescent inpatient population. This study was undertaken to explore the validity of the PCL-R in assessing the concept of psychopathy in such a sample, and to also explore the complex relationship between psychopathy, symptoms of conduct disorder, and personality disorders.

Methods

Subjects

Subjects were 38 consecutive admissions to a university hospital adolescent inpatient psychiatry program. The catchment area was primarily composed of the metropolitan and rural areas of north central Florida. Exclusion criteria included mental retardation—defined as a full scale IQ less than 70 (one subject), pervasive developmental disorder (one), psychosis (two), and hospital stays less than seven days (two). Two other subjects were excluded because of incomplete data sets (two), leaving a total of 30 adolescents for study inclusion.

Demographic data for the 30 subjects included a mean age of 15.33 years, \pm 0.99, with a range of 14 to 17 years. The sample was 83% white, 17% black; 67% female and 33% male. Socioeconomic status by the Hollingshead and Redlick two-factor method was broken down as follows: class I (7%), class II (10%), class III (20%), class IV (53%), and class V (10%). The average full scale IQ of the sample 98.0, \pm 15.11, with a range of 72–126.

Instruments

The Diagnostic Interview for Children and Adolescents (DICA-R; draft "6-R", revised January 1990) is a fully structured interview

for use in adolescents 13 to 17 years of age, and it allows the determination of both current and past DSM-III-R diagnoses [20]. Twenty diagnostic categories from DSM-III-R are covered. The DICA-R Adolescent Interview and Parent Interview were both employed.

The Structured Interview for Personality Disorders—Revised (SIDP-R) is a semi-structured diagnostic instrument which covers all DSM-III-R personality disorders [21]. The SIDP-R was chosen because of its "content" oriented format which frequently requires examples from the interviewee's life to substantiate a given criterion. This instrument has been previously used in adolescent populations [13,14]. Some questions were modified to better suit adolescent subjects, for example, the word "school" was substituted for "work" as appropriate. The SIDP-R was not used to diagnose antisocial personality disorder in the present study because this disorder theoretically cannot be made in those adolescents under 18 years of age (per DSM-III-R), and the application of SIDP-R antisocial personality disorder criteria questions to adolescents is difficult for developmental reasons. Certain core criteria of antisocial personality disorder refer to behaviors that do not reach a stable pattern until adulthood (such as, childrearing practices, spouse-beating, patterns of employment, failure to honor financial obligations).

The PCL-R is a 20-item instrument that incorporates interview and file information to dimensionally measure psychopathy. It is a revised version based on the original Psychopathy Checklist (PCL) [3], and is considered to be an equally reliable and valid instrument for the measurement of psychopathy [18]. Each of the 20 items is scored as a 0 (item does not apply), 1 (item applies in some respects), or 2 (item definitely applies), with a potential maximum score of 40. The 20 areas covered by the PCL-R are:

1. Glibness/superficial charm,
2. Grandiose sense of self worth,
3. Need for stimulation/proneness to boredom,
4. Pathological lying,
5. Conning/manipulative,
6. Lack of remorse or guilt,
7. Shallow affect,
8. Callous/lack of empathy,
9. Parasitic lifestyle,
10. Poor behavioral controls,
11. Promiscuous sexual behavior,
12. Early behavior problems,
13. Lack of realistic long-term goals,
14. Impulsivity,
15. Irresponsibility,
16. Failure to accept responsibility for actions,
17. Many short-term marital relationships,
18. Juvenile delinquency,
19. Revocation of conditional release, and
20. Criminal versatility.

A score of 30 or above on the PCL-R using adult populations is considered diagnostic for psychopathy. Six pooled adult male prison samples had an average score of 23.6 [4]. In other prison samples, inmates with conduct disorder were found to have mean PCL scores of 23.2 [16] and 28.6 [17]. A population of male young offenders (ages 13 to 20 years, mean 16.3 years) being held in a maximum-security detention center had a mean prorated PCL score of 26.2 [15]. There are no established norms for the PCL-R in adolescents or studies pertaining to its use in youthful samples.

Research is currently underway that will assess the applicability of the PCL-R in additional populations such as females and non-criminals [18].

Delinquent behavior data was obtained from the DICA-R conduct disorder section and also from all available collateral data (such as, previous records, social service information, police reports).

Procedure

Approval by the University of Florida College of Medicine Institutional Review Board was obtained for this research project. Informed consent was obtained by the subjects and their guardian(s) prior to the initiation of the assessment protocol.

The procedural aspects of administering the DICA-R and SIDP-R to a similar adolescent population have been reported previously by the authors [14]. Briefly, the DICA-R interviews were given by authors W.C.M. and H.E.H., a child psychiatry fellow, and two graduate level research assistants. All raters were trained and periodically assessed in the use of the DICA-R by author W.C.M. An average kappa coefficient [22] of 0.69 (moderate interrater reliability) was obtained on a random sample of interviews that were simultaneously scored by two raters. SIDP-R interviews were given by authors, R.C.B., W.C.M. and H.E.H., who have previous experience with this instrument [14]. An average kappa coefficient of 0.72 (moderate interrater reliability) was obtained on a random sample of interviews that were simultaneously scored by two raters.

The prorated scoring procedure as described by Forth et al. [15] for applying the PCL-R to adolescents was followed. This entailed omitting Item 9 (parasitic lifestyle) and Item 17 (many short-term marital relationships). For Item 18 (juvenile delinquency), violent crimes were scored as a 2 and nonviolent crimes as a 1. For Item 20 (criminal versatility), four or more offenses were scored as a 2, three offenses as a 1, and two or less offenses as a 0. Up to five items can be omitted without invalidating the total PCL-R score [4].

Author W.C.M., who is experienced with the use of the PCL-R and has worked with both juvenile and adult offender populations, completed and scored all of the PCL-R instruments applied to the subjects. This involved gathering data from the following information sources: 1) PCL-R semi-structured interview; 2) clinical information from the patient's hospitalization; 3) previous hospital and outpatient records; 4) social service reports; and 5) police records. Sources 3, 4, and 5 were not applicable to every subject. Two additional mental health professionals (typically author H.E.H. and a child psychiatry resident familiar with the youth's personality and history) corroborated PCL-R scores by collectively reviewing the 20 PCL-R scored items for each subject. Occasional discrepancies were resolved by group discussion in order to reach a consensus score. This procedure was chosen instead of averaging independent PCL-R assessments in order to maximize information exchange and thus facilitate precision in scoring.

Mean PCL-R scores for subjects with and without various delinquent behaviors, Axis I disorders, personality disorder diagnoses, and delinquent behaviors were compared. The student t-test was utilized in the data analysis to determine level of significance.

Results

The mean PCL-R score for the sample was 15.69, \pm 9.97, with a range of 1.1 to 34.4. There were no significant differences in mean PCL-R score by age, race, SES or IQ score. The mean PCL-R score for males was 22.87 \pm 11.02 (range 6.7 to 34.4), and for

females was 12.10 \pm 7.32 (1.1 – 26.3). This difference was significant ($t = 2.79$, $d.f. = 28$, $P < .01$).

Delinquent behaviors in the 30 subjects included: fighting ($N = 24$, 80%), causing serious injury to others during fights ($N = 18$, 75%), stealing ($N = 15$, 50%), vandalism ($N = 12$, 40%), breaking and entering ($N = 12$, 40%), history of arrests ($N = 11$, 36.7%), use of weapons in fights ($N = 10$, 33.3%), purposely injuring or killing animals ($N = 6$, 20%), and robbery ($N = 1$, 3.3%). Only three (10%) youths were free of delinquent behaviors. Table 1 compares the mean PCL-R scores of those subjects who committed specific delinquent behaviors with those who had not.

The mean PCL-R scores for selected Axis I and II diagnoses in the 30 subjects are depicted in Figure 1. As expected, the structured diagnostic interviews generated multiple DSM-III-R Axis I and Axis II diagnoses. On Axis I, 12 subjects (40%) had conduct disorder, 8 (27%) had oppositional defiant disorder, and 12 (40%) had substance abuse. There were a total of 76 Axis II diagnoses, or an average of 2.53 personality disorder diagnoses per subject (range 0 to 6). This included seven (23.3%) with paranoid, nine (30%) with borderline, ten (33.3%) with histrionic, one (13.3%) with narcissistic, three (10%) with avoidant, eight (26.7%) with dependent, eighteen (60%) with passive aggressive, four (13.3%) with obsessive compulsive, two (6.7%) with sadistic, and eleven (36.7%) with self-defeating personality disorder. No schizoid or schizotypal personality disorder diagnoses were found. Overall, 26 of the 30 subjects (86.7%) had at least one personality disorder, and one-third of the sample (33.3%) had four or more personality disorders.

Discussion

The first hypothesis that PCL-R scores would be positively associated with both delinquent behaviors and the diagnosis of conduct disorder was supported. The PCL-R identified those individuals with conduct disorder diagnoses and delinquent behaviors without actually applying DSM-III-R conduct disorder criteria. Unexpectedly, the delinquent behavior of "using weapons in fights" was not correlated with significantly elevated PCL-R scores. This peculiar finding may be due to the sensitivity of the DICA-R to relatively minor aggressive acts (such as, an adolescent who throws household objects during a domestic quarrel with parents). Elevated PCL-R scores in those with conduct disorder are not unexpected, as this diagnosis is believed to be a precursor to antisocial personality disorder [8].

The second hypothesis that higher PCL-R scores would be associated with borderline, histrionic, and narcissistic personality disorder, and lower PCL-R scores with avoidant and dependent personality disorder was only partially supported. Significant PCL-R score elevations were found in the subjects with narcissistic personality disorder. This may be due in part to the greater degree of commonality between psychopathy and DSM-III-R narcissistic personality disorder criteria than with borderline and histrionic criteria. Psychopathy and narcissistic personality disorder share common ground in the areas of lack of empathy, exploitativeness, grandiose sense of self, feelings of entitlement, and a need for attention or stimulation. There was a trend toward lower PCL-R scores in those adolescents with avoidant personality disorder, but this did not reach significance. A similar nonsignificant trend of lower PCL-R scores was noted in the subjects with self-defeating personality disorder. This makes sense intuitively, for this disorder has characteristics that are the antithesis of psychopathy. Other elements of the hypothesis were not supported, perhaps partly due

TABLE 1—Mean PCL-R scores for those subjects with and without individual delinquent behaviors.

Delinquent behavior	Subjects with behavior		Mean PCL-R score with behavior	Mean PCL score without behavior	t	d.f.	P Value
	N	%					
Fighting	24	80.0	17.50 ± 9.80	8.47 ± 7.46	2.47	28	<.05
Causing serious injury to others during a fight	18	75.0	19.43 ± 9.89	10.08 ± 7.34	2.98	28	<.01
Stealing	15	50.0	20.92 ± 9.45	10.46 ± 7.63	3.33	28	<.005
Vandalism	12	40.0	22.19 ± 10.26	11.36 ± 7.20	3.17	28	<.005
Breaking and entering	12	40.0	21.13 ± 10.17	12.07 ± 8.24	2.57	28	<.01
History of arrests	11	36.7	23.57 ± 8.55	11.13 ± 7.72	3.94	28	<.001
Use of weapons in fights	10	33.3	19.82 ± 10.61	13.63 ± 9.22	1.79	28	N.S.
Purposely injuring or killing animals	6	20.0	25.38 ± 7.59	13.27 ± 9.07	3.36	28	<.005

to incomplete development and maturation of adolescent personality.

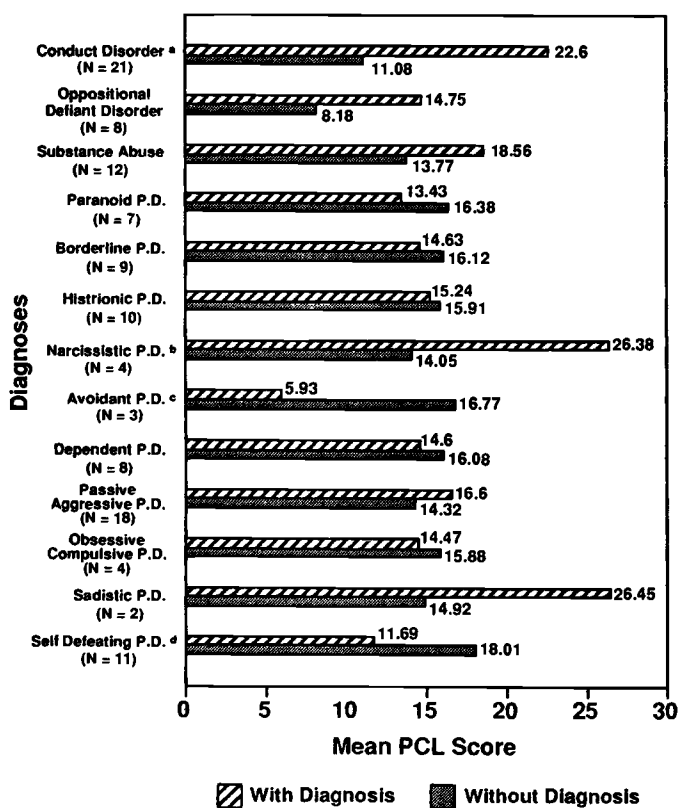
We generally agree with Forth et al.'s. [15] caveat that the application of the PCL-R to youthful offender populations (and likewise to psychiatrically hospitalized adolescents) should be used for research purposes only and not relied upon for clinical assessment. However, the PCL-R might add a useful dimension to the evaluation process for adolescents with conduct disorder symptoms and/or delinquent behaviors. This application of the PCL-R to such youthful populations could be used in future research efforts as well as selected clinical settings.

The findings in this study should be viewed with caution, as there is limited reliability and diagnostic concordance in the use of structured interviews for the diagnosis of personality disorders [23], and normative data for the PCL-R in adolescents is not available. Furthermore, these findings in hospitalized adolescents may not be applicable to other youthful populations. Larger sample sizes are needed to further examine possible gender influences on the relationship between psychopathy and delinquent behaviors, conduct disorder, and personality.

In summary, our findings lend support to the validity of the PCL-R as a measure of the construct of psychopathy in adolescence. The clinical relevance of the PCL-R in adolescents will be clarified by longitudinal studies addressing the stability and predictive value of this measurement with passage to adulthood.

Acknowledgment

The authors thank Terrance Otto, M.D. and Kerrilyn Scott, B.S. for their assistance in the data collection, and Lynn Robbins, B.S. for her assistance in the data analysis. Portions of this research were supported by a grant from the Upjohn Company.



* d.f. = 28, t = 3.72, p < .001

† d.f. = 28, t = 2.50, p < .05

‡ d.f. = 28, t = 1.86, p = .073

§ d.f. = 28, t = 1.73, p = .095

FIG. 1

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