

A Rorschach Study of Attachment and Anxiety in Inpatient Conduct-Disordered and Dysthymic Adolescents

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We investigated the constructs of attachment and anxiety in inpatient conduct-disordered and dysthymic adolescents. Texture, diffuse shading, and pure human content (Exner, 1986) Rorschach indices were compared between 48 subjects who met the criteria for conduct disorder and 30 subjects who met the criteria for dysthymia, according to the *Diagnostic and Statistical Manual of Mental Disorders* (3rd ed., rev. [DSM-III-R]; American Psychiatric Association, 1987). We also compared mild, moderate, and severe conduct-disorder groups on the three selected Rorschach variables and investigated certain family characteristics for the two groups.

We found a lower frequency of texture and pure human content responses in conduct-disordered subjects and a greater frequency of diffuse shading responses in the dysthymic subjects. The conduct-disordered subjects also came from homes in which the mother figure was significantly less present. Our psychometric findings of lessened attachment and diminished anxiety in the conduct-disordered adolescents are similar to adult psychopaths. We urge that an attachment or socialization disturbance criterion be reintroduced into the forthcoming *DSM-IV* conduct-disorder diagnosis.

Failures and disruptions of early attachments have been associated with the formation of juvenile delinquent and later psychopathic disturbances (Bowlby, 1946; Horner, 1984; Meloy, 1988; Robins, 1966; Rutter, 1981; Spitz, 1950).

Bonding failures may lead to the development of interpersonal detachment, impaired empathy, decreased tolerance for anxiety, and a lack of guilt and remorse (Bowlby, 1946; Gacono, 1988; Horner, 1984; Karpman, 1950; Meloy, 1988). A desire to form meaningful human relationships is an important prognosticator for psychotherapy outcome with antisocial adults (Gerstley et al., 1989; Meloy, 1988).

Consistent with the *DSM-III-R* (American Psychiatric Association, 1987), we expected that the personality constructs associated with conduct disorder would parallel those of adult antisocial personality. Adults who were antisocial children were found to have more arrests, alcoholism, divorce, poor job histories, child abuse problems, and psychiatric hospitalizations than were neurotic children or control subjects (Robins, 1966). Robins (1966, 1970, 1972) concluded that antisocial behavior in childhood is an excellent predictor of adult psychopathy, although most conduct-disordered children are not diagnosed with antisocial personality disorder in adulthood. Little is known, however, about the psychometric characteristics of conduct-disordered adolescents to differentiate them from other adolescent groups and as possible predictors of antisocial personality in adulthood. Differences in attachment and anxiety appear to be important hypotheses for research.

We decided to test the utility of Rorschach texture, shading, and pure human content responses for discriminating conduct disorder from dysthymia, a frequently diagnosed disorder for inpatient adolescents. These selected Rorschach variables were also measured according to *DSM-III-R* conduct-disorder severity (mild, moderate, severe). We hypothesized that the texture response would occur less frequently within the conduct-disordered sample and predicted that a significantly greater number of dysthymic adolescents would produce diffuse shading and pure human content responses when compared to conduct-disordered adolescents. We also hypothesized that mild, moderate, and severe conduct-disordered groups would differ with respect to these variables, in the direction that the severe group would produce fewer texture, pure human content, and diffuse shading responses than the moderate and mild groups. The relationship of these variables to real-world attachments was also explored by looking for significant differences in certain demographic measures.

METHOD

Subjects

Subjects were 48 (33 males, 15 females) inpatient adolescents who met the *DSM-III-R* criteria for conduct disorder, and 30 (19 males, 11 females) inpatient adolescents who met the *DSM-III-R* criteria for dysthymia. All subjects were between the ages of 13 and 16 (conduct disorder $M = 14.6$; dysthymia $M = 15.3$) and free of diagnoses of schizophrenia, mental retardation, or bipolar

illness. Subjects with an IQ less than 80 were excluded. The mean IQ for conduct-disordered subjects was 100.7 ($SD = 9.89$) and 106.0 ($SD = 11.93$) for dysthymia subjects. The diagnosis for conduct disorder and dysthymia was determined by archival record data which included the intake, discharge summary, family history, developmental history, and medical history. Diagnosis was reevaluated for reliability using *DSM-III-R* criteria by two of us (Meloy and Weber). Subjects were selected only if no other comorbid diagnosis existed.

All subjects had been patients at Southwood Psychiatric Hospital in Chula Vista, CA, between 1986 and 1989. Southwood is a private inpatient psychiatric hospital specializing in the treatment of adolescents and children. In the conduct-disordered group, 37 subjects were White (77.1%), 4 subjects were Black (8.3%), 4 were Asian (8.3%), 2 were Hispanic (4.2%), and 1 was American Indian (2.1%). The dysthymic group consisted of 26 White subjects (86.7%), 2 Black subjects (6.7%), 1 Black and Samoan subject (3.3%), and 1 Asian subject (3.3%).

Instruments

The subjects in this study were administered the Rorschach Inkblot Technique (Rorschach, 1942) using the Comprehensive System (Exner, 1986). Rorschach protocols were scored for the following selected Exner indices: texture (*T*), diffuse shading (*Y*), and pure human content (pure *H*) responses. Intelligence estimates were taken from scores on the Wechsler Intelligence Scale for Children-Revised (WISC-R; Wechsler, 1974).

Procedure

Four hundred eighty-three records were randomly selected from the medical files at Southwood Psychiatric Hospital by two of us (Meloy and Weber). Ninety-one subjects were found to meet the *DSM-III-R* criteria appropriate for conduct disorder. Fifty-two subjects in this sample were between the ages of 13 and 16, and a total of 48 subjects met criteria for inclusion in the study. Four subjects were excluded because they had fewer than 11 responses and/or Lambdas greater than 1.2. Thirty dysthymic subjects between the ages of 13 and 16 who did not meet conduct-disordered criteria were selected from the reviewed records and were included for study.

Rorschach protocols, originally scored by interns, were rescored by Weber for reliability. Twenty protocols were randomly selected and scored by Gacono for interscorer reliability. One hundred percent agreement was found on *T* and *Y* and 94% agreement on pure *H*; these figures are similar to Exner's (1986).

Analysis of Data

Means and standard deviations were determined for age, approximate IQ, and number of Rorschach responses. These indices were compared between the

conduct-disordered and dysthymia groups utilizing the Mann-Whitney *U* nonparametric test. Chi-square analysis was used to determine differences among group demographics, including presence of a father and/or mother figure at home, marital status of parents, history of drug use or physical abuse, and the presence of attention-deficit hyperactivity disorder. Means, standard deviations, and frequencies were determined for *T*, *Y*, and pure *H* responses (see Tables 1 and 2). Because of the small sample size, distributions that did not approximate normal curves, and the clinical meanings of each variable, the frequencies for the three Rorschach indices were compared by the chi-square test for two independent samples and the chi-square test for two or more independent samples (Siegel, 1956). Findings were considered to be significant if they reached a .05 level.

RESULTS

The 48 conduct-disordered adolescents had a mean age of 14.6 years ($SD = 1.17$), a mean IQ of 100.7 ($SD = 9.89$), and a mean number of Rorschach responses of 21.7 ($SD = 9.81$). The 30 dysthymic adolescents had a mean age of 15.3 ($SD = 1.13$), a mean IQ of 106.0 ($SD = 11.93$), and a mean number of Rorschach responses of 21.9 ($SD = 9.69$). There were no significant differences between groups in age and total number of Rorschach responses. There was a significant difference between IQ scores, $p < .05$, with a higher mean score for the dysthymic group; however, both groups scored in the average range.

TABLE 1
Means, Standard Deviations, and Frequencies for *T*, *Y*, and Pure *H* Rorschach Responses in Conduct-Disordered and Dysthymic Adolescents

Category	Conduct Disorder ^a			Dysthymia ^b		
	<i>M</i>	<i>SD</i>	Frequency	<i>M</i>	<i>SD</i>	Frequency
<i>T</i>	.33	.55	14	.90	.87	19
<i>Y</i> ^d	1.08	1.91	25	1.13	.99	24
Pure <i>H</i> ^e	2.27	1.89	37	2.53	1.36	29
	Nonpatient Adolescents ^{d,e}			Inpatient Depressives ^{a,h}		
<i>T</i>	.93	.63	105	.93	1.42	122
<i>Y</i>	.21	.14	20	1.31	1.32	142
Pure <i>H</i>	2.41	.93	120	1.90	1.41	182

Note. Frequencies equal the number of individual subjects who produced at least one response in the given category.

^a $n = 48$. ^b $n = 30$. ^cSignificance obtained at $< .01$ level, $\chi^2 = 7.49$. ^dSignificance obtained at $< .05$ level, $\chi^2 = 5.02$. ^eSignificance obtained at $< .05$ level, $\chi^2 = 4.11$. ^f $n = 120$ for 15 year olds. ^gExner (1986) group variables were not statistically compared with the conduct-disordered and dysthymic groups. ^h $n = 210$.

TABLE 2
Means, Standard Deviations, and Frequencies for *T*, *Y*, and Pure *H* Rorschach Responses in Mild, Moderate, and Severe Conduct-Disordered Adolescents

Category	M	SD	Frequency
Mild ^a			
<i>T</i> ^b	.44	.61	6
<i>Y</i> ^c	.56	.70	7
Pure <i>H</i> ^d	2.31	2.08	11
Moderate ^a			
<i>T</i>	.31	.46	5
<i>Y</i>	1.50	2.87	8
Pure <i>H</i>	2.12	2.03	12
Severe ^a			
<i>T</i>	.25	.56	3
<i>Y</i>	1.25	1.35	10
Pure <i>H</i>	2.37	1.49	14

Note. Frequencies equal the number of individual subjects who produced at least one response in the given category.

^a $n = 16$. ^bNo significance obtained, $p > .05$, $\chi^2 = 1.41$, $df = 2$. ^cNo significance obtained, $p > .05$, $\chi^2 = 1.17$, $df = 2$. ^dNo significance obtained, $p > .05$, $\chi^2 = 1.65$, $df = 2$.

Mild, Moderate, and Severe Conduct-Disordered Groups

The mild conduct-disordered group ($n = 16$) had a mean age of 14.5 ($SD = 1.11$), a mean WISC-R IQ of 102.7 ($SD = 10.56$), and a mean number of 25.62 ($SD = 10.05$) Rorschach responses. The moderate group ($n = 16$) had a mean age of 15.0 ($SD = 1.26$), a mean WISC-R of 98.8 ($SD = 9.99$), and mean number of 20.5 ($SD = 11.49$) Rorschach responses. The severe group ($n = 16$) had a mean age of 14.9 ($SD = 1.02$), a mean WISC-R IQ of 100.7 ($SD = 8.64$), and a mean number of 18.87 ($SD = 5.52$) Rorschach responses. There were no significant differences between these groups on age, IQ scores, or number of Rorschach responses, $p > .05$.

Rorschach Variables

Significant differences were found between the conduct-disordered and dysthymic groups for the three indices studied. The dysthymic group produced a significantly greater frequency of *T*, $p < .01$; *Y*, $p < .05$; and pure *H*, $p < .05$, responses (see Table 1). As we predicted and previously found in antisocial personality disorder (APD) individuals (Gacono & Meloy, 1991; Heaven, 1988), the *T* response was infrequently produced in the conduct-disordered group. Only 29% (14 subjects) of our conduct-disordered group produced *T* responses, and 77% to 89% of Exner's (1986) nonpatient adolescents between 13

to 16 years old produced this type of response. Our dysthymic group produced a 63% frequency of form–texture response, texture–form response, and pure texture response ($FT + TF + T$), with a mean of .90 and a standard deviation of .87, which was similar to Exner's (1986) inpatient depressive group, which produced a 58% frequency of T responses with a mean of .93 and a standard deviation of 1.42.

The Y response was infrequently produced by our conduct-disordered group (52%) when compared to our dysthymic group (80%) and Exner's (1986) inpatient depressive group (68%). Twenty-three (48%) conduct-disordered subjects did not produce a Y response, but only 6 (20%) dysthymic subjects failed to produce at least one Y response. The conduct-disordered group had a Y mean of 1.08 ($SD = 1.91$), and the dysthymic group had a Y mean of 1.13 ($SD = .99$).

As we expected, pure H was less frequently produced by the conduct-disordered group (67%) when compared to the dysthymic group (97%). Twenty-nine of 30 dysthymic subjects produced at least one pure H response, but only 37 of 48 conduct-disordered subjects did. The conduct-disordered group mean for pure H was 2.27 ($SD = 1.89$), and the dysthymic group mean was 2.53 ($SD = 1.36$).

Although no significant differences were found among the mild, moderate, and severe conduct-disordered groups for the three variables studied, trends were apparent in the expected direction for T . Frequencies for T among these three groups ranged from a maximum of six subjects (37%) producing at least one T in the mild group to a minimum of three subjects (19%) in the severe group. The mild, moderate, and severe groups obtained a T mean of .44 ($SD = .61$), .31 ($SD = .46$), and .25 ($SD = .56$), respectively (see Table 2). Larger sample sizes may yield significant differences.

Sixty-nine percent (11 subjects) of the mild group produced responses containing pure H ; 75% (12 subjects) of the moderate group gave responses with pure H ; 87% (14 subjects) of the severe group had pure H in their responses—a counterintuitive finding. Means ranged from a low of 2.12 ($SD = 2.03$) for the moderate group to a high of 2.37 ($SD = 1.49$) for the severe group (see Table 2).

No differences were found among the groups on the Y response. The mild group obtained a mean for Y responses of .56 ($SD = .70$), the moderate group mean was 1.50 ($SD = 2.87$), and the severe group mean was 1.25 ($SD = 1.35$). Fifty-six percent (9) of the mild diagnosed subjects, 50% (8) of the moderate, and 37% (6) of the severe subjects gave no Y responses.

Demographic Findings

Personal histories indicated that 16.7% of dysthymic subjects came from parents with intact marriages, and 83.3% subjects came from parents of divorce (70%) or separation (13.3%). Similar figures were indicated with conduct-disordered

subjects: 14.6% came from parents with intact marriages, and 85.4% came from divorced (68.7%) or separated (16.7%) parents. No significant difference between groups on parental marital status was found, $p > .05$.

The presence of a maternal figure at home was significantly different between the conduct-disordered and dysthymic groups, $\chi^2(1, N = 78) = 3.91, p < .05$. Parental history showed that 16.7% of conduct-disordered subjects came from families in which no mother figure was present, but 100% of the dysthymia subjects had either their biological mother or stepmother present at home. There was no significant difference between conduct-disordered and dysthymia groups on the absence of a father figure from home, $p > .05$. We found that 35.4% of conduct-disordered subjects came from homes in which no father figure was present (biological father or stepfather), but only 16.7% of dysthymic subjects had a father figure missing from home.

We also ascertained histories of physical abuse, drug use, and attention-deficit hyperactivity disorder (ADHD). There were no significant differences between the conduct-disordered and dysthymic groups on these variables, $p > .05$. The conduct-disordered group, however, had higher percentages of experiences of abuse (43.8%), drug use (72.9%), and history of ADHD (8.3%), than did the dysthymic group (20.0%, 50.0%, and 3.3%, respectively). Again, trends are in the expected direction.

DISCUSSION

Attachment to a primary caregiver is fundamental for the development of a sense of security and a capacity for emotional investment in others (Ainsworth, Blehar, Waters, & Wall, 1978; Bowlby, 1969, 1973, 1980; Horner, 1984; Meloy, 1988; Rutter, 1981; Spitz, 1950). Meloy (1988) previously indicated that an absence of an object relational capacity to bond specifically characterizes the psychopathically disturbed individual. The manner in which devaluation serves to protect antisocial individuals from feelings of dependency, envy, and vulnerability disallows the internalization of good objects and subsequent attachment (Gacono, 1988, 1990; Gacono, Meloy, & Heaven, 1990; Lerner, 1988; Meloy, 1988).

The infrequent presence of *T* responses in conduct-disordered adolescents psychometrically supports the detachment observed in these individuals (Meloy & Gacono, in press). The difference in the frequency of *T* responses suggests that conduct-disordered adolescents have proportionally less interest in affectional relatedness than dysthymic adolescents. It also may indicate etiological and developmental differences between conduct disorder and dysthymia. Attachment failure in conduct-disordered adolescents may prevent the internalization of good objects and subsequent positive identifications (Meloy, 1988). Dysthymic adolescents, however, may have more adequate early attachments,

and their pathology may be viewed as a reaction to object loss (Hoch, 1972). The dysthymic adolescent has introjected and identified with the love object, hence loss of that object creates feelings of ambivalence between dependency yearnings and marked guilt feelings generated by anger over the loss (Hoch, 1972; Horner, 1984). Conduct disorder may have earlier developmental roots than dysthymia (Behar & Stewart, 1982).

The *T* response mean for our conduct-disordered group (.33) is more akin to Gacono and Meloy's (1991) moderate psychopathy group (.48) than severe psychopathy group (.05), which may indicate that very few true psychopaths were in our conduct-disordered sample. Yet the low frequency of *T* suggests a common developmental thread of emotional detachment between the juvenile delinquent's personality and the adult psychopath, such as Robins (1966) observed.

Lower *T* and pure *H* responses among the conduct-disordered subjects, when compared to our dysthymic subjects, demonstrate that depressed inpatient adolescents possess a greater desire for interpersonal relatedness. Specifically, the low frequency of pure *H* in the conduct-disordered sample may indicate their indifference to others as whole, real, and meaningful individuals. This finding is consistent with previous research on delinquency and human content (Exner, Bryant, & Miller, 1975; Ray, 1963). Furthermore, the significantly less frequent presence of a mother figure at home for the conduct-disordered adolescents and their high frequency of physical abuse are real-life correlates of the disturbance of attachment we are psychometrically inferring.

The lower frequency of *Y* responses in the conduct-disordered group may be indicative of decreased anxiety and helplessness, as well as an inability to tolerate these experiences. The effectiveness of certain defensive operations, such as acting out and grandiosity (Gacono et al., 1990), may aid some conduct-disordered adolescents in warding off threats (anxiety) to their internalized object relations (Gacono, 1988, 1990; Gacono & Meloy, 1988; Meloy, 1988). The conduct-disordered group mean for *Y* responses (1.08), however, is greater than Exner's (1986) nonpatient adolescents between the ages of 13 to 16 years. This difference may be due to the conduct-disordered group's abusive and neglectful family life, current hospitalization, and increased situational anxiety.

We did not find differences among the mild, moderate, and severe conduct-disordered groups on *T*, pure *H*, and *Y*. Certain Rorschach variables, such as *T*, and borderline object relations phenomena (Kwawer, 1980), are significantly different among particular levels of adult psychopathic severity (Gacono, 1988, 1990; Gacono & Meloy, 1991; Gacono et al., 1990; Meloy & Gacono, in press). It follows that the *DSM-III-R* classification for severity of conduct disorder would parallel findings that psychometrically differentiate severe from moderate adult psychopathy. This was not the case in our study.

The *DSM-III-R* does not differentiate conduct disorder based on personality characteristics, but relies solely on the frequency of delinquent behavior. The

DSM-III (American Psychiatric Association, 1980), however, emphasized personality traits and level of socialization. Severity (undersocialized vs. socialized and aggressive vs. nonaggressive) was determined by the presence of adequate social or interpersonal bonds and a pattern of aggressive antisocial behavior (American Psychiatric Association, 1980). As Deutsch and Erickson (1989) found, socialized delinquents tend to have histories of attachments to others, whereas undersocialized delinquents have histories of a disruptive early life and attachment failures. Measurement of early life events, such as stress and attachment, show that socialized delinquents have fewer stressful life events during their first 4 years of development than undersocialized delinquents (Deutsch & Erickson, 1989).

In our study, however, the diagnosis for severity of conduct disorder was not based on socialization or presence of certain personality traits, but on the sheer frequency of *DSM-III-R* delinquent behaviors. Our findings cast doubt on the validity of the *DSM-III-R*'s continuum of conduct-disorder severity.

Significant differences in T, pure H, and Y responses between two inpatient groups of adolescents support the utility of the Rorschach test as a psychometric measure of the absence of attachment, interest in others, and anxiety in conduct-disordered adolescents. Our results also underscore the need to include an attachment or socialization disturbance criterion in the conduct disorder diagnosis in *DSM-IV*.

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