

Characteristics of Children and Adolescents in a Psychiatric Hospital and a Corrections Facility

ROBERT COHEN, PH.D., DEAN X. PARMELEE, M.D., LAURA IRWIN, JOHN R. WEISZ, PH.D.,
PAIGE HOWARD, PATRICIA PURCELL, R.N., AND AL M. BEST, PH.D.

Abstract. Popular opinion holds that youngsters in corrections programs are delinquents in need of reform, whereas youngsters in psychiatric settings have mental health problems and need therapy. Yet some literature suggests that youth in the two settings may not differ greatly in their mental health status. The authors compared demographic, emotional, and behavioral characteristics of youngsters placed in public psychiatric hospital and corrections settings, and they found few differences. Child Behavior Checklist scores for social competence and total problems were high and quite similar for youngsters in the two settings. White children scored significantly worse than black children on Child Behavior Checklist Internalizing, Externalizing, and total problems in corrections settings but not in the psychiatric hospital. Moreover, race was the only variable that predicted the site in which youth were placed. The findings suggest a need to study (1) the mental health needs of youngsters in nonmental health settings and (2) the procedures by which youth are assigned to service settings. *J. Am. Acad. Child Adolesc. Psychiatry*, 1990, 29, 6:909-913. **Key Words:** children, adolescents, hospital, corrections, race.

Considerable attention has been given recently to the problems of providing services to children and adolescents with serious emotional disturbance (Friedman, 1986; Saxe et al., 1987; Institute of Medicine, 1989; National Mental Health Association, 1989). In her national survey, Knitzer (1982) reported that 40% of all youngsters residing in public psychiatric hospitals were inappropriately placed. One of the service delivery issues that has been highlighted is the absence of a systematic method of placing youngsters to receive appropriate services. A number of studies have found

that children with serious emotional disturbances are found in a variety of settings in addition to psychiatric hospitals, including special education, community mental health, foster care, residential facilities, and juvenile corrections facilities (Gillung and Forgione, 1987; Kauffman et al., 1987; Friedman et al., 1988, unpublished manuscript; Trupin et al., 1988, unpublished manuscript; Willis-Fredman, 1988; McClure et al., 1989).

While there are no systematic policies and procedures for placing children and adolescents in settings that will most appropriately meet their mental health needs, several investigators have found differences among children placed in various settings. For example, although Friedman and Kutash (1986, unpublished manuscript) observed many similarities in children placed in mental health residential facilities and training schools for delinquents, they also noted differences in social and racial characteristics. They found that youngsters in the mental health setting were more likely to have been abused than those in facilities for delinquents, and children in mental health facilities tended to enter the public service system at a younger age than those in training schools. A number of studies have found that black youngsters are more highly represented in facilities for delinquents than in mental health facilities (Friedman and Kutash, 1986, unpublished manuscript; Westendorp et al., 1986; Willis-Fredman, 1988), and more restrictive settings tend to have a greater percentage of males, adolescents, and nonwhites (Willis-Fredman, 1988). These studies suggest that age, sex, and race may influence decisions regarding the placement of children and adolescents.

The present study was designed to examine the characteristics of youngsters placed within child/adolescent psychiatric hospital and corrections settings. Specifically, this study addressed two questions: (1) are there differences in degree or type of disturbance in children placed in corrections and psychiatric settings? and (2) do children in these two settings differ in terms of demographic characteristics?

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Dr. Cohen is Director of the Virginia Treatment Center for Children (VTCC) and Commonwealth Institute for Child and Family Studies (CICFS) and Associate Professor of Psychology in the Department of Psychiatry, Medical College of Virginia, Virginia Commonwealth University (MCV/VCU), Richmond, VA; Dr. Parmelee is Assistant Professor and Chairman of the Division of Child Psychiatry at the MCV/VCU and Medical/Clinical Director of the VTCC; Ms. Irwin is a student in the School of Medicine, MCV/VCU; Dr. Weisz is Professor of Psychology, University of North Carolina at Chapel Hill; Ms. Howard was a Research Assistant at VTCC; Ms. Purcell is a graduate student in the School of Social Work at VCU; and Dr. Best is Assistant Professor of Biostatistics, MCV/VCU, and Consulting Biostatistician at the CICFS.

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Request reprints from Dr. Cohen, Director, The Virginia Treatment Center for Children, P. O. Box 1-L, Richmond, VA 23201.

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TABLE 1. *Child Behavior Checklist Results for State Hospital and Corrections Sample*

Measure	State Hospital (N = 32)		State Corrections (N = 36)		t-test
	\bar{X}	SE	\bar{X}	SE	
Total Social Competence T ^a	32.4	1.86	31.2	1.86	0.43
Total Behavioral Problems T	74.6	1.88	72.1	1.78	0.94
Internalizing T	70.3	1.48	66.3	1.40	1.99*
Externalizing T	70.2	1.90	72.6	1.80	0.91

^a Lower social competence scores indicate greater degree of behavioral problems.

* $p < 0.05$

Method

Subjects and Settings

The children were drawn from the inpatient programs of a state operated psychiatric hospital for children and adolescents and a state operated juvenile corrections facility. Both facilities are located in the Richmond, Virginia metropolitan area. The state hospital draws approximately 90% of its patients from central Virginia (about 20% of the state population base of Virginia). The demographic composition and urban/suburban/rural distribution of the population in this region are fairly representative of the entire state. The corrections facility is the diagnostic and reception center for the entire juvenile corrections program of the state of Virginia.

All youngsters, aged 12 through 15, admitted to either facility during a 5-month period in 1989 were considered eligible for this study. This age group was selected because it is the only age range common to both settings. Of the children entering the psychiatric hospital, 31% were admitted under voluntary status, while 69% were committed by the courts; 31% of the hospital sample had a record of criminal charges or convictions. All youngsters admitted to the corrections facility were placed by the court following conviction for offenses that would be considered crimes if committed by adults (i.e., nonstatus offenses).

Caretakers were asked to sign a release form for the purpose of obtaining information from the child's school records. Of the 72 families from the hospital asked to participate in this study, 32 agreed to participate (42%), while 38 of 100 families (38%) from corrections agreed. All of the parents/guardians from the hospital sample and 36 parents/guardians from the corrections sample actually completed the data collection procedures.

To keep the hospital sample size similar to the corrections sample size, telephone follow-ups were conducted with families who had not previously responded to the request to participate in this research project. Demographic data for nine of the 32 hospital respondents were obtained through telephone follow-up interviews.

Data Collection Procedure

Within the first 2 weeks of admission, parents or primary caretakers were asked by program staff if they would be willing to participate in this study. Caretakers agreeing to participate were given a brief demographic questionnaire and a copy of the Child Behavior Checklist (CBCL) (Ach-

enbach and Edelbrock, 1983). Families were asked to return the information by mail, with the exception of the CBCL completed for children in the psychiatric hospital. In the hospital setting, the CBCL was a standard component of the admission procedure. Families of youths in both settings were promised \$5.00 payment on completion of the instruments.

Instruments

The family demographic questionnaire generated information on age, gender, race, family structure, previous placement, and parents' occupations. Socioeconomic status (SES) was measured using the Hollingshead (1975, unpublished manuscript) nine-point rating scale of parents' occupations.

The CBCL generates summary scores for social competence and total problems. In addition, separate scores are computed for Internalizing problems (e.g., sadness, anxiety, somaticizing) and Externalizing problems (e.g., fighting, delinquency, swearing).

Results

Of the 32 children from the hospital sample, 21 were male, 21 were white, and 11 were black; the mean age was 14.1 years (SD = 0.17). Of the corrections sample of 36, 27 were male, 13 were white, and 23 were black; the mean age was 14.1 years (SD = 0.17). Two significant demographic differences emerged between the two settings: (1) 34% of the hospital sample was black, compared to 64% of the corrections sample ($\chi^2 = 8.3$, $df = 1$, $p < 0.02$); (2) the mean SES for families of the hospital sample was higher than that of the corrections sample ($t = 2.12$, $df = 62$, $p < 0.04$), though both groups were clearly at the lower end of the SES range.

A comparison of the CBCL scores showed that there were no significant differences between the hospital and corrections samples on the major scales: total social competence, *T*-score, and total behavior problems sum *T*-score. On these scales, scores falling at or beyond two standard deviations from the mean (i.e., scores ≤ 30 on social competence and ≥ 70 on behavior problems) lie within the most extreme 2% of the general population and are considered to fall within the clinical range. Thus, the total behavior problem scores for both the state hospital and corrections samples were well within the clinical range. As shown in Table 1, the only hospital-corrections difference that ap-

TABLE 2. *Child Behavior Checklist Scores for Black and White Children in Hospital and Corrections Settings*

Measure	Black				White				F Ratio
	Hospital		Corrections		Hospital		Corrections		
	\bar{X}	SE	\bar{X}	SE	\bar{X}	SE	\bar{X}	SE	
Total Social Competence T ^a	38.0	3.08	33.8	2.18	29.7	2.11	26.7	2.90	3.01*
Total Behavioral Problems T	74.1	2.89	67.1	2.0	74.8	2.09	81.0	2.65	6.19***
Internalizing T	70.8	2.27	62.3	1.57	70.0	1.64	73.3	2.09	7.63***
Externalizing T	68.3	2.95	67.7	2.04	71.1	2.14	81.2	2.71	5.78**

^a Lower social competence scores indicate greater degree of behavioral problems.

* $p < 0.05$, ** $p < 0.002$, *** $p < 0.001$.

proached significance was on the Internalizing scale, with the hospital mean being higher than the corrections mean ($t = 1.99$, $df = 66$, $p = 0.05$).

A logistic regression analysis was performed to determine the relationship of race, SES, and CBCL scales (social competence and behavioral problems as well as Internalizing and Externalizing subscales) to placement site. This analysis revealed that when the CBCL scores and race were considered concurrently, race was still an important predictor of site ($p < 0.03$), but none of the CBCL scores were significant predictors of site when race was considered (all $p > 0.3$). In summary, race was the only variable that was predictive of site. SES differences were explained by race differences and there was no relationship between site and CBCL.

Additional analyses were conducted to identify the factors that contributed to the finding that white children scored significantly higher than black children on the CBCL. Table 2 presents analysis of variance results for CBCL scores for black and white children in hospital and corrections settings. Least squares means were computed to compare scores for racial groups within each site. On the social competence subscale, there was a significant race effect ($F = 8.8$, $df = 1$, $p < 0.005$), but no interaction between site and race, with white children at both sites having significantly lower scores in social competence than their black counterparts. There was a significant site \times race interaction for total behavioral problems ($F = 7.29$, $df = 1$, $p < 0.009$); whites had higher problem scores than blacks within corrections ($p < 0.00009$) but not in the hospital site. Significant race effects as well as site \times race interactions were found for both the Internalizing scale (race effect, $F = 7.20$, $df = 1$, $p < 0.009$; site \times race interaction, $F = 9.52$, $df = 1$, $p < 0.003$) and Externalizing scale (race effect, $F = 10.76$, $df = 1$, $p < 0.002$; site \times race interaction, $F = 4.52$, $df = 1$, $p < 0.04$), with the differences being in the same direction as for total behavioral problems. White children in corrections scored significantly higher than black children in the same setting on the Internalizing scale ($p < 0.0007$) and the Externalizing scale ($p < 0.0002$), while there were no reliable differences between black and white children in the hospital sample.

Discussion

The results of this study support the view that children with serious emotional disorders may be placed in correc-

tions as well as psychiatric hospital settings. The initial findings, that blacks were overrepresented in the corrections sample and that CBCL total problem scores for the hospital and corrections samples were equivalent and in the clinical range, were consistent with previous findings (Friedman and Kutash, 1986, unpublished manuscript; Westendorp et al., 1986; Willis-Fredman, 1988) and raised the question of whether black children with serious emotional disorders were more likely to be placed in corrections than white children with equivalent problems. Additional analysis, however, suggested that the similarity of CBCL scores for the corrections and hospital samples was attributable primarily to the high scores of white children in corrections.

Clearly, the issue of race emerges as a critical factor in this study. One obvious question raised by differences in parents/guardians' responses for black and white children is whether cultural factors might account for differences in perceptions and, consequently, response patterns on the CBCL, rather than the scores being attributable to actual differences in behaviors present in the two sample populations. Evidence against such a response bias may be found in the study of national samples of clinic and nonclinic populations, in which Achenbach and Edelbrock (1981) found no clear response patterns associated with race on either the social competence or behavior problem scales of the CBCL. In addition, since black-white differences in CBCL scores in the present study were found in corrections but not in the hospital, even the present data are inconsistent with a cultural response pattern based solely on race.

This study raises a number of questions that may be relevant to practitioners and policy makers, the most obvious question being whether the race of a child affects placement decisions over and above the child's behavior and service needs. If one considers only an analysis of scores from the two sites, without regard to racial subgroups within each site, the absence of differences in CBCL scores between the sites and the preponderance of black children in corrections might raise questions about their placement. Additional analysis of the data, however, revealed that black and white children at the hospital had equivalent profiles, black children in corrections exhibited the lowest scores on the CBCL, and the white children in corrections had the highest scores on the CBCL. The finding of elevated scores for white children in corrections changes the focus of inquiry to the questions of why this group of white youth was placed in a correctional rather than a psychiatric facility, and how

such children with serious behavioral and emotional problems might be most effectively served.

At first blush, one might assume that, whatever their CBCL scores, children in corrections are there because they committed crimes. But in fact, committing a crime may lead *either* to a corrections placement *or* to a psychiatric placement. Indeed, as noted above, 69% of the hospital sample had been committed by the courts, and 31% had a record of criminal charges or convictions. In principle, a crime committed by a youngster with serious mental health needs could, quite legally, lead to a court commitment to a psychiatric facility. Thus, the question remains: Why would youth who manifest such serious mental health problems be placed in a corrections facility?

Additional research on the treatment history of the white youth in corrections might help us answer these questions. Are they youngsters who have had previous psychiatric treatment that has not sufficiently met their needs? While this information was not available for the sample of youth in corrections, evidence supporting this hypothesis is found in records of the Division of Youth Services in Virginia. Of the 1,306 youths admitted to corrections in fiscal year 1989, white children comprised 42% of the total population; yet, white youngsters accounted for 71% of those who had previous psychiatric hospitalizations (D. Waite, personal communication, 1989). These data are consistent with the high CBCL scores for white children in corrections and suggest that these youngsters have critical mental health needs.

The fact that white children in corrections not only scored significantly higher than the other groups on total behavior problems but also scored higher on both the Internalizing and Externalizing scales suggests that white children in the corrections sample may have had very serious behavioral and emotional difficulties—difficulties that are not limited to aggressive and delinquent behavior but include inward problems involving internal distress.

Interpretation of these results must be qualified by limitations in the research design. First, the sample is relatively small. Replication of the study with a larger number of youngsters would be required before definitive conclusions could be drawn. Second, since demographic data for 28% of the hospital sample were collected through a telephone follow-up procedure, the hospital and corrections samples cannot be considered to be totally equivalent. Finally, the CBCL by itself does not provide a fully comprehensive assessment of emotional disorder. Achenbach and Edelbrock (1983) emphasize that these instruments are designed to describe behaviors rather than provide diagnostic inferences. They caution against using checklist descriptions outside of the context of a comprehensive evaluation of child and family. Furthermore, children, parents, and teachers tend to rate child behaviors differently, as Rutter (1989) has pointed out. Achenbach et al. (1987) also have provided support for the view that there are differences among various informants' judgments of child/adolescent behavioral and emotional problems.

While a number of additional sites might be considered for inclusion in future studies, such as private psychiatric

hospitals, special education programs within the regular school system, social service residential settings, and community mental health centers, comparison of the two sites in the current study has some methodological benefits as well as offering the potential for yielding information that may be relevant for both practitioners and policy makers. First, both facilities are state operated and provide services without a required fee. Consequently, such potentially confounding financial factors as insurance coverage and ability to pay do not arise within these settings. Second, in the settings the authors sampled, such potential confounds as intellectual and learning ability are not a problem because placement is not determined by intellectual functioning as would be the case in school settings. Also, the comparison the authors structured represents a particularly sharp contrast: the general public as well as many professionals tend to think of psychiatric hospitals and corrections facilities as being quite different, serving very different types of children, and providing different types of interventions. This is in contrast to other possible comparisons, such as inpatient psychiatric settings versus outpatient psychiatric settings. Thus, a comparison of a state operated psychiatric hospital and juvenile corrections facility represents a particularly important test of whether individuals served in different child service settings are similar or different in their mental health needs.

Additional research addressing this issue should include: (1) a larger sample of children; (2) multiple measures of behavioral and emotional disorder, including teacher report and youth self-report measures as well as other clinical instruments; (3) more precise information on the nature of referral problems and criminal charges for children; and (4) more sample sites, including less restrictive ones, to maximize the generalizability of the findings.

Additional research may yield clinical indicators for placing children in settings suitable to their individual needs. Since it appears that children with serious emotional disorders are placed in a variety of settings, it is critical for both service and fiscal efficacy to have a clinically sensible process and system assuring that these children have ready access to needed mental health services in the most appropriate setting.

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