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Criminal Justice and Behavior 2008; 35; 1429
DOI: 10.1177/0093854808324061

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PSYCHOSOCIAL PREDICTORS OF CLINICIANS' RECOMMENDATIONS AND JUDGES' PLACEMENT ORDERS IN A JUVENILE COURT

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A large proportion of youthful offenders who enter the juvenile justice system have psychiatric disorders and psychosocial risk factors that perpetuate delinquency, and addressing these issues has been a growing concern of juvenile courts nationwide. This study examines the relationship between the clinical information provided through comprehensive forensic assessments and clinicians' recommendations for placement (community setting vs. secure facility) and judges' sentencing decisions. The sample included 248 youth, ranging from 11 to 17 years old, who were adjudicated in the Cook County (Chicago) Juvenile Court. A reliable and valid approach for coding psychosocial variables is also presented as a prototype for future research. Consistent with previous studies, results show that judges are inclined to adopt clinical recommendations and that the material provided by comprehensive clinical evaluations could diminish the effects of offense and delinquency-based factors on dispositions.

Keywords: juvenile courts; disposition; forensic assessments; psychosocial factors

Youth who have entered the juvenile justice system have exceptionally high rates of psychiatric disorders. Estimates of the prevalence of mental illness in this population vary but are consistently higher than those reported in the general adolescent population. For example, studies suggest that two thirds of juvenile offenders have a diagnosable psychiatric disorder, whereas 70% to 80% of detained youth have mental health problems that are serious enough to require clinical services (Atkins et al., 1999; Cauffman, 2004; Kataoka et al., 2001; Robertson, Dill, Husain, & Undesser, 2004). The Office of Juvenile Justice and Delinquency Prevention (2000) reported that 20% of juvenile offenders have a serious psychiatric disorder.

The mental health conditions of youth are often important in explaining their antisocial behavior. An understanding of the treatment needs of youthful offenders is essential in the formulation of appropriate individual and systemic responses to juvenile crime and delinquency, which have complex etiologies and are related to a wide range of individual, environmental, and social risk factors. Informing the courts about these factors is critical to the rehabilitation of adjudicated youth, which is a longstanding purpose of America's juvenile

AUTHORS' NOTE: *Philip C. O'Donnell is now at the Metropolitan State Hospital, Norwalk, California. We thank Julie Biehl and the staff of the Cook County Juvenile Court Clinic, Barbara Hansdorfer, Megan Tomlinson, and Jonna Gattuso for their assistance with this research. Correspondence concerning this article should be addressed to Philip C. O'Donnell, Metropolitan State Hospital, 11401 Bloomfield Ave., Norwalk, CA 90650; e-mail: philip.odonnell@hotmail.com.*

CRIMINAL JUSTICE AND BEHAVIOR, Vol. 35 No. 11, November 2008 1429-1448

DOI: 10.1177/0093854808324061

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justice system. Nonetheless, it is uncertain whether such information has a practical effect on court outcomes.

This study explores the extent to which psychosocial factors, as assessed in clinical evaluations, affect clinicians' placement recommendations and judges' sentencing decisions. Several studies have examined the relative importance of psychosocial and clinical information in juvenile court decision making; however, the results of these studies have been inconsistent (e.g., Campbell & Schmidt, 2000; Hecker & Steinberg, 2002; Hoge, Andrews, & Leschied, 1995; Niahros & Routh, 1992). Methodological differences among studies as well as differences among court jurisdictions all play a role in explaining the inconsistencies of research findings on the predictors of juvenile court outcomes. Researchers must adopt standard methods for investigating the utility of clinical information among juvenile court jurisdictions. The current study illustrates the use of a reliable and valid approach for capturing the clinical risk factors that are important in juvenile court decision making and identifies systemic variables that would be useful in future cross-jurisdictional research.

BACKGROUND

Numerous studies have illuminated the predictors and correlates of delinquency. This research has been valuable to mental health and juvenile justice practitioners and can be used to further inform judicial responses to adjudicated youth. Below, we briefly review several of the key correlates and psychosocial risk factors related to delinquency.

Behavioral and emotional disorders. In clinical terms, delinquency is a pattern of behaviors that appear in the context of either internalizing or externalizing disorders; it is most often associated with conduct disorder, which includes several law-violating behaviors among its diagnostic criteria. Delinquent youth are 20 times more likely to be diagnosed with conduct disorder than are nondelinquent youth (Grisso, 2004). Other disruptive behavior disorders, including oppositional-defiant disorder and attention-deficit/hyperactivity disorder (ADHD) are also common among youthful offenders. One juvenile in five in detention facilities (prior to adjudication) meets the criteria for ADHD (Pliszka, Sherman, Barrow, & Irick, 2000; Teplin, Abram, McClelland, Dulcan, & Mericle, 2002).

The cardinal symptoms of ADHD, particularly impulsivity and disinhibition, contribute to risky behaviors in adolescence (Babinski, Hartsough, & Lambert, 1999; Hinshaw & Lee, 2003). The presence of this disorder is associated with the early onset of conduct problems as well as negative clinical and justice-related outcomes (Loeber, Burke, Lahey, Winters, & Zera, 2000). The high prevalence of disruptive behavior disorders within the population of the juvenile justice system is a consequence of conduct problems. Specifically, youth with severe behavior problems are likely to be placed in the system. However, a large proportion of these youth exhibit diagnosable behavior problems long before they come to the attention of the court (Stouthamer-Loeber & Loeber, 2002).

Internalizing disorders also are found at disproportionately high rates among youthful offenders. Approximately 10% to 20% of delinquent boys meet the diagnostic criteria for a mood disorder, such as dysthymia and major depression. Nearly one third of youth with conduct disorder are also afflicted with clinical depression or anxiety disorders (Dishion, French, & Patterson, 1995). These disorders are especially high among detained girls, affecting

an average of one in five (Robertson et al., 2004; Teplin et al., 2002). In addition, depression can be a byproduct of participation in the juvenile justice process. For example, incarcerated youth often experience depressive symptoms after they are detained (Armistead, Wierson, Forehand, & Frame, 1992; Kroll et al., 2002).

Among youthful offenders, substance use disorders are a powerful predictor of criminal involvement and recidivism, especially when they co-occur with other psychiatric problems. Substance use can either precede or follow the development of delinquent behavior (Loeber et al., 2000). When youth have comorbid emotional and behavioral problems, it is necessary to implement specific interventions that treat both problems simultaneously (Niahros & Routh, 1992). Youth with problem drug and alcohol use are likely to return to court if these issues are not adequately addressed.

Traumatic experiences. A significant number of court-involved youth have experienced interpersonal trauma (e.g., child abuse, rape, domestic violence). Robertson et al. (2004) reported that more than 40% of detained girls and 20% of detained boys scored in the moderate-to-severe range of PTSD symptomatology. Dixon, Howie, and Starling (2005) reported a similar prevalence rate (37%) among delinquent girls; of girls, 70% with traumatic symptoms were victims of sexual abuse. The precursors of PTSD among male delinquents were more often attributable to family and community violence (Steiner, Garcia, & Matthews, 1997). The prognosis for youthful offenders with PTSD is poor. Many develop other psychiatric disorders (Dixon et al., 2005), have low impulse control, and exhibit high levels of aggression (Steiner et al., 1997). As a result, traumatized youthful offenders are commonly misunderstood and underserved by the juvenile justice system.

Individual differences. In addition to psychiatric disorders, numerous psychosocial risk factors, including individual, family, peer, and community variables, contribute to the onset and perpetuation of delinquency during childhood and adolescence (Hinshaw & Lee, 2003). Gender is the most common characteristic associated with delinquency, which has traditionally been a male phenomenon. However, female delinquency is a growing problem. The early-middle childhood disparities in behavioral problems of boys and girls dissipate by adolescence (Zoccolillo, 1993), and, in certain contexts (e.g., highly disadvantaged neighborhoods), disruptive behavioral problems among girls are quite common (Hipwell et al., 2002). Nonetheless, delinquent boys are more likely to become involved in the juvenile justice system, where they consume a large share of court resources (Cottle, Lee, & Heilbrun, 2001).

Juvenile delinquency is correlated with certain temperamental (e.g., sensation seeking and poor behavioral inhibition) and personality traits. Youth engage in delinquent acts for the sake of excitement, adventure, or arousal (Loeber & Farrington, 2000). Uninhibited youth experience less discomfort when exposed to deviant acts or delinquent peer groups and tend to actively seek such stimuli and companions, in contrast to more inhibited youth who avoid such experiences (Kerr, Tremblay, Pagani, & Vitaro, 1997). A subset of delinquent males exhibit significant delays in the development of moral reasoning, interpersonal awareness, and sensitivity to social conventions (Chandler & Moran, 1990). In addition, delinquency and aggression have been linked to deficits in language (Brownlie et al., 2004), affective empathy (Kaplan & Arbuthnot, 1985), and the interpretation of social interactions (Crick, Grotpeter, & Bigbee, 2002).

Given their association with delinquent behaviors, these individual characteristics can be targets of clinical intervention.

School failure. Abundant evidence suggests that poor school performance and truancy are risk factors for juvenile crime and delinquency (Chang, Chen, & Brownson, 2003). Delinquent youth have lower academic aspirations and are less committed to school than are nondelinquent youth (Vazsonyi & Flannery, 1997). Truancy and school problems are often part of a constellation of delinquent behaviors that results from intellectual limitations, attention deficits, and learning difficulties, all of which lead to academic failure (Babinski et al., 1999; Barkley, 2003; Cottle et al., 2001). Thus, poor academic performance is another area to address among youthful offenders.

Family, peers, and community. Family risk factors for delinquency include inadequate parental monitoring (Barnes & Farrell, 1992; Brody et al., 2001; Brown, Mounts, Lamborn, & Steinberg, 1993; Flannery, Williams, & Vazsonyi, 1999), harsh or inconsistent disciplinary practices (Patterson, DeBaryse, & Ramsey, 1989), negative parent-child communication and interactions (Stouthamer-Loeber, Loeber, Wei, Farrington, & Wikstrom, 2002), and parental criminality or beliefs that promote delinquency or aggression (Hinshaw & Lee, 2003). The family's role is pivotal in terms of supervising adjudicated youth and ensuring their participation in mandated treatment, both of which are essential to the success of court interventions designed to control juvenile crime and recidivism.

Youths' community and social environments, including their peer groups, are also associated with delinquency. Childhood experiences of peer rejection contribute to the early onset of conduct problems and antisocial behavior among boys (Miller-Johnson, Coie, Maumary-Gremaud, & Bierman, 2002). Rejected boys are often predisposed toward aggression and impulsivity, which increase the likelihood that they will affiliate with similarly rejected and antisocial youth (Coie, 2004). Youth who affiliate with delinquent peers are more likely to engage in delinquent behavior (Keenan, Loeber, Zhang, Stouthamer-Loeber, & Van Nammen, 1995; Vitaro, Brendgen, & Tremblay, 2000).

In impoverished urban communities, delinquent behavior is so entrenched that it is considered normative and can develop as early as elementary school (Henry, Tolan, & Gorman-Smith, 2001; Stouthamer-Loeber et al., 2002). Moreover, youth in crime-infested neighborhoods are more likely to adopt beliefs that promote and reward aggression and violence (Guerra, Huesmann, Tolan, Van Acker, & Eron, 1995). Although many of the family- and community-level risk factors for delinquency cannot be remediated by the juvenile court, knowledge of their impact on individual youth can facilitate more effective decisions about placement and treatment.

CLINICAL ADVICE IN JUVENILE COURTS

The juvenile justice system can adequately deal with many, but not all, of the above factors. Nevertheless, the system is typically the first (and only) avenue through which juvenile offenders' mental health problems are ever identified and treated. The degree to which services are clinically appropriate depends on communication between mental health professionals and court personnel. Juvenile courts can be most responsive to youths' mental health needs when they receive timely and thorough clinical information. Psychological assessments are arguably

most useful during the disposition phase, when judges determine how court interventions can alleviate youths' problems and prevent further penetration into the system and future recidivism (Kalogerakis, 1992). Historically, the juvenile justice system has emphasized the rehabilitation of youthful offenders. Within this framework, specialized clinical evaluations can guide decisions about placements and services.

Investigations of the effects of extralegal factors on court dispositions have yielded mixed results. Legal variables (e.g., offense history, severity of instant offense, past incarceration) are consistently the strongest predictors of dispositions, whereas psychosocial factors (e.g., behavior problems, family functioning and composition, peer associations, school achievement, attitudes, drug use) are typically of lesser or no significance (Campbell & Schmidt, 2000; Cauffman et al., 2007; Hoge et al., 1995; Niahros & Routh, 1992). To draw meaningful conclusions about the current role of rehabilitation in America's juvenile courts, researchers must examine not only the individual and environmental factors known to predict delinquency and recidivism but also the mechanisms by which judges receive clinical information. Thus, a key research question is how, or whether, clinical information is communicated to the court.

In their recent study of a comprehensive set of both legal and extralegal variables, Cauffman and colleagues (2007) concluded that only drug use problems predicted confinement beyond legal factors; however, they acknowledged that much of the psychological data under investigation were not accessible to the court. Niahros and Routh (1992) coded assessment reports (presumably reviewed by judges) to study the relationships among clinical variables, sentencing decisions, and recidivism rates. They found that only previous arrests and detention decisions (i.e., whether youth were placed in secure facility or community setting prior to adjudication) predicted dispositions.

Still other studies have shown that psychosocial variables, documented in court-ordered mental health evaluations (Campbell & Schmidt, 2000) or predisposition probation reports (Hoge et al., 1995), affect dispositional outcomes. Moreover, when clinical advice is provided through court-ordered evaluations, clinicians' recommendations and judges' final decisions are often strongly correlated (Campbell & Schmidt, 2000; Hecker & Steinberg, 2002; Jaffe, Leschied, Sas, & Austin, 1985). However, few researchers have investigated how clinicians formulate their recommendations for court intervention.

THE CURRENT STUDY

This study examines the relationship between clinical information—provided through comprehensive forensic assessments—and clinicians' recommendations for placement (community setting vs. secure facility) and judges' sentencing decisions. Cases were adjudicated in the Cook County (Chicago) Juvenile Court, the oldest and one of the largest juvenile court systems in the United States. The Cook County Juvenile Court Clinic (CCJCC) provides judges with comprehensive clinical evaluations based on standardized assessment procedures tailored to the specific legal questions that juvenile court judges pose at sentencing. The CCJCC reports are a rich source of clinical information and a valuable tool in the sentencing process (Lurigio & Swartz, 2006). This study's investigation of one court's use of clinical consultation, provided by a highly structured, court-based clinic, sheds light on how clinical advice can inform juvenile court decision making and highlights key clinical areas of interest to judges.

A second aim of this study is to demonstrate a methodological approach for coding key clinical, psychosocial, and systemic variables critical for studying the effects of clinical recommendations across jurisdictions. As we previously noted, several researchers have raised the issue of jurisdictional differences as both an explanation of inconsistent findings and a threat to the external validity of any single study (Hecker & Steinberg, 2002; Sampson & Laub, 1993). Jurisdictions vary in terms of the communities they serve (urban, suburban, or rural), the number of judges, the availability of clinical evaluators (within or outside the court's auspices or location), the number of juveniles processed annually, and many other factors that affect case outcomes. To expand this line of research beyond the study of individual jurisdictions, researchers must begin to apply comparable methods across jurisdictions, which would allow meta-analytic comparisons. The Child and Adolescent Needs and Strengths–Juvenile Justice Version (CANS-JJ; Lyons, 1999), a reliable and valid instrument that can be used with current or archival data obtained through various means (e.g., forensic clinical evaluation, probation department social investigation, youth and family interview), is presented here as a prototype for coding clinical information relevant to juvenile court decision making.

HYPOTHESES

Previous research has found that clinical factors (e.g., mental health, psychosocial factors) have little bearing on court decisions, compared to offense and criminal history variables (Campbell & Schmidt, 2000; Cauffman et al., 2007; Hoge et al., 1995; Niahros & Routh, 1992). Hence, we hypothesized that criminal and delinquency variables (i.e., onset of delinquent behavior, number of prior offenses, preadjudication placement) will be the strongest predictors of judges' sentencing decisions. We also hypothesized that clinical factors, such as conduct and substance use disorders, will affect clinicians' recommendations for placement because of their association with criminal behaviors and their threat to public safety. Finally, we hypothesized that clinicians' recommendations will be related to judges' sentencing decisions, which is consistent with previous research findings and reflects the distinctive nature of the court clinic that provided the information under investigation (Campbell & Schmidt, 2000; Hecker & Steinberg, 2002; Jaffe et al., 1985).

METHOD

PARTICIPANTS

Participants were 248 youth, ages 11 to 17, adjudicated delinquent and referred to the CCJCC for a clinical evaluation between 2003 and 2005. The cases were heard by 1 of 16 judges presiding over 15 calendars and serving different regions of the county, which spans more than 940 square miles and is home to more than 5 million residents. Approximately 10,000 cases are processed each year by the Cook County Juvenile Court. Only a small subset of those is evaluated by court clinicians. Participants were sampled from a large clinic database of archived presentence investigations. Clinicians evaluated the juveniles after a formal finding of guilt, but prior to sentencing, or when an initial disposition was modified because of a subsequent offense or violation of probation. The final report contains several sections, including information from records and interviews, results of cognitive and personality testing, information from collateral contacts, and mental status and

behavioral observations. Clinicians' responses to specific legal questions are presented in the concluding section of the report.

For the presentencing evaluations studied here, the most common legal questions were the following: What is the minor's intellectual or cognitive functioning? What are the minor's psychological treatment needs? What services should be ordered as a condition of probation? Should the minor be placed in a residential treatment setting, and, if so, at what security level? Finally, what is the most appropriate placement for the minor? All parties (e.g., attorneys, probation officers, judges) receive copies of the final report, which the judge can consider in the making the disposition decision.

INDEPENDENT VARIABLES

Demographic characteristics. Basic demographic information, including the juvenile's self-reported race/ethnicity, gender, and age (at the time of sentencing), was collected from the clinical evaluation. Variables that are commonly used as indices of socioeconomic status, such as family income or parents' education level, were unavailable in the documents; however, there was little variability among cases on these variables. Most of the juveniles were of a lower socioeconomic status, resided in impoverished inner-city communities, were represented by public defenders, and received Medicare subsidies.

Current offense. The current offense variable was the petitioned offense for which the minor was found guilty. Both the number and type of charges were coded from the current petition. For descriptive purposes, offense was coded categorically as a property, personal, drug, sex, or weapons crime. For regression analyses, an offense severity rating variable was created using the local probation department's risk assessment instrument for detention decisions. If the petition involved multiple charges, the severity of the most serious offense was coded. Violent felonies with aggravating circumstances, such as the use of a firearm or great bodily injury (e.g., armed robbery, home invasion, and aggravated criminal sexual assault), received a rating of 15; forcible felonies (e.g., robbery, kidnapping, aggravated battery, arson) received a rating of 10; nonviolent or less severe felonies (e.g., possession of a controlled substance, burglary, assault or battery without aggravating factors, weapons possession) received ratings of either 7 or 5; and misdemeanors (e.g., theft, possession of narcotics or other drugs, disorderly conduct) received ratings of 3 or 2.

Offense history. The total number of previous offenses among all categories cited in the clinical report was recorded as an index of each youth's offense history. This information was available in the clinician's review of social investigations completed by the probation department or arrest records summarized in the report. If these more objective sources were not contained in the report, the parent's or youth's self-report of offense history was recorded. Because of discrepancies among various reporters, as well as the inconsistencies that can arise as cases are processed through the juvenile justice system (e.g., station adjustment, arrest without court referral, court referral), this variable provided only an estimate of youths' histories of delinquent and criminal behavior. In addition, the same sources of information were used to identify the juvenile's age at first offense.

Psychosocial risk and protective factors. Psychosocial variables were coded using the CANS-JJ (Lyons, 1999). The CANS measures are open-domain tools designed to translate

ratings on specific clinical variables into action steps for system planning and intervention (Winters, Collett, & Myers, 2005). The CANS-JJ was specifically developed for youth who were at risk of delinquency or who were already involved in the juvenile justice system. The instrument has been adopted in several jurisdictions to identify youths' risk and protective factors and inform the development of comprehensive services to meet their mental health and psychosocial needs. The CANS-JJ was chosen as the primary coding tool for several reasons.

The CANS-JJ measures variables identified as important in determining placement and service needs (Anderson, Lyons, Giles, Price, & Estle, 2003), and the juvenile justice version covers specific areas (e.g., delinquency, violence, substance use) relevant to juvenile court decisions. The measure also includes strengths-based indices of youths' overall functioning. Although published data on the CANS-JJ are limited, other versions of the CANS have been shown to be reliable (generally .70 to .85) in clinical judgments and research tasks, such as the coding of archival records (Anderson et al., 2003). The CANS instruments correlate with another measure of functional impairment, the Child and Adolescent Functional Assessment Scale, which is used in juvenile justice and mental health settings (Winters et al., 2005). Thus, the CANS-JJ is a theoretically sound and practical instrument for coding the clinical evaluations under review.

The CANS-JJ contains eight domains with several underlying variables: (a) functional status (e.g., intellectual, family, and school functioning), (b) criminal and delinquent behavior, (c) substance abuse complications, (d) other child risk behaviors (e.g., danger to self, risk of runaway), (e) mental health needs, (f) child safety (e.g., abuse, neglect), (g) family or caregiver needs and strengths, and (h) the youth's strengths. Although these eight domains contain theoretically related items, they are neither psychometrically derived nor intended to be used as summary scores. Each variable of the CANS-JJ is coded on a 4-point Likert-type scale, with higher scores representing poorer functioning on a given variable. In addition to indicating the youth's functioning on a particular dimension, item-level ratings represent "action steps." Thus, a score of 0 = *no evidence of a problem or no need for action*, a score of 1 = *evidence of a mild problem or a need for "watchful waiting,"* a score of 2 = *evidence of a moderate problem or a need for action*, and a score of 3 = *evidence of a severe problem or need for immediate or intensive action*. On strengths-based items, higher scores represent less evidence of the strength. Thus, as with needs-based items, high scores imply a greater need for action.

To increase interrater reliability, the CANS-JJ manual provides guidance and examples of what constitutes a particular score on each item. For example, on items that measure mental health needs (e.g., depression or anxiety, oppositional behavior, anger control), the manual describes specific symptoms and behaviors that would correspond to each rating. Thus, ratings on mental health items were not solely based on the presence or absence of a psychiatric diagnosis. In some instances, the evaluated youth had preexisting diagnoses (which were used to inform CANS-JJ ratings); however, evaluating clinicians did not offer diagnostic impressions, per se, as part of their reports. For each variable, the ratings assigned by coders represent a synthesis of the information available throughout the report from a variety of sources (e.g., past records, parents, youth, probation officers, etc.).

DEPENDENT VARIABLES

The dependent variables under investigation were clinicians' recommendations for placement included in their final reports and judges' decisions about placement at sentencing. For

each variable, one of four levels was possible from least to most restrictive placement: (a) community placement with outpatient services, (b) community placement with multisystemic therapy (MST), (c) residential mental health or substance abuse treatment, and (d) placement in the Department of Corrections (DOC).

PROCEDURES

The current research is based on data obtained from archival records. The primary source of data was the clinical evaluation described above. To protect the anonymity of the subjects of the evaluations, CCJCC staff members redacted all identifying information from the clinical reports. Research team members also were unable to examine the original copies of court, hospital, or school records cited in the evaluation. Therefore, all variables were coded on the basis of information contained in the clinician's final written report. Sentencing decisions were coded on the basis of the information communicated to the clinic through its court liaisons.

The primary researcher and a team of three other investigators coded the clinical evaluations on the set of variables described above. Each coder was trained either live or through online tutorials and coding exercises. In addition, the coding team consulted with the creator of the CANS-JJ regarding its specific application to archival data. Pairs of coders reviewed and discussed initial ratings of several clinical evaluations to assess agreement and resolve any coding questions. Finally, the primary researcher and one of the other investigators coded approximately 20% of the total sample ($n = 50$) to evaluate interrater reliability before the coding of actual data. To create a parsimonious and empirically sound set of psychosocial predictor variables, a standard factor analytic approach was used to analyze the underlying factor structure of the CANS-JJ data.

RESULTS

The final sample included 248 youth, ranging from 11 to 17 years old. In all, 167 (67%) were male. Nearly 70% ($n = 173$) were African American, 18% ($n = 44$) were Latino, and 11% ($n = 27$) were European American. The highest percentage of youth committed property offenses (37%, $n = 91$), closely followed by personal offenses (35%, $n = 87$). Approximately 10% ($n = 25$) of youth committed drug offenses, 5% ($n = 13$) committed weapons offenses, and 2% ($n = 6$) committed sex offenses; also, 11% ($n = 26$) committed offenses in two or more of the preceding categories. Offense severity ratings were the highest for sex offenses ($M = 12.5$, $SD = 2.7$), followed by weapons charges ($M = 11.9$, $SD = 4.1$), personal offenses ($M = 6.5$, $SD = 2.9$), property offenses ($M = 6.1$, $SD = 2.7$), and drug charges ($M = 4.8$, $SD = 1.4$). At the time of the referral for evaluation, 58% of youth ($n = 144$) were in a secure detention facility.

PRELIMINARY ANALYSES

CANS-JJ. The intraclass correlation coefficient was used to assess interrater reliability on 50 of the coded clinical evaluations. This statistic accounts for both the consistency among raters—rather than absolute agreement—as well as mean differences (i.e., bias)

TABLE 1: Internal Consistency of Child and Adolescent Needs and Strengths—Juvenile Justice Version Factors

<i>Factor</i>	<i>Alpha</i>	<i>Items</i>
Substance Use or Delinquency	.87	History of criminal or delinquent behavior, peer delinquency, environmental influences, severity of substance abuse, duration of substance abuse, stage of recovery, peer substance abuse
Family Dysfunction	.83	Family functioning, parent substance abuse, family mental health history, neglect risk, permanency, caregiver physical functioning, supervision or discipline, involvement with care, knowledge, organization, resources, residential stability
School Problems	.79	School achievement, school attendance, educational strengths
Internalizing Disorders	.71	Danger to self, depression or anxiety, adjustment to trauma, intrusive thoughts, abuse history, current abuse
Externalizing Disorders	.72	Danger to others, anger control, oppositional behavior, antisocial behavior, situational consistency, well-being

TABLE 2: Intercorrelations Among Continuous Independent Variables

	1	2	3	4	5	6	7	8	9
Age	—	-.03	.56**	.03	.14*	-.04	.05	.02	-.12
Offense severity rating		—	.01	-.10	.01	.07	-.004	-.13*	.06
Age at first offense			—	-.26**	-.16*	-.03	.13*	.07	-.18**
Total number prior offenses				—	.34**	.04	-.04	.04	.14*
CANS—Substance Use or Delinquency					—	.23**	.08	.30**	.43**
CANS—Family Dysfunction						—	.26**	.19**	.23**
CANS—Internalizing							—	-.03	.21**
CANS—School Problems								—	.20**
CANS—Externalizing									—
<i>M</i>	14.8	6.8	13.2	4.0	12.7	15.3	5.2	6.3	10.6
<i>SD</i>	1.3	3.3	1.8	4.1	5.0	5.7	3.0	2.1	2.8

Note. CANS = Child and Adolescent Needs and Strengths.

* $p < .05$. ** $p < .01$.

within raters (Shrout & Fleiss, 1979). Eight of the CANS-JJ variables did not meet the minimum reliability cutoff of .60 and were eliminated from further analyses. None of these items (affect regulation, attachment, dissociation, social behavior, exploitation, transportation, family strengths, and interpersonal strengths) were considered critical in addressing the study's primary research questions. Next, a standard factor analytic approach was employed to identify the underlying structure of the CANS-JJ. An examination of eigenvalues and a scree plot of the data, as well as a series of factor analyses, using the principal axis factoring approach yielded a five-factor solution as the best fit to the data.

Several additional items (e.g., intellectual functioning, sexual aggression) were excluded from further analyses because they lacked variability and did not load onto any of the factors. The results of the analysis included three theoretically sound and internally consistent factors—Substance Use or Delinquency, Family Dysfunction, and School Problems—as well as two factors related to mental health—Internalizing Disorders and Externalizing Disorders. Table 1 lists the items and reliability coefficients for each factor. Correlations among the nine independent variables are reported in Table 2.

Dependent variables. Of the four possible placement options, clinicians recommended community placement with outpatient services in 19% of cases ($n = 46$), community placement with MST in 22% ($n = 54$), residential placement in 56% ($n = 139$), and DOC placement in only 2% ($n = 6$). Similarly, judges ordered community placement with outpatient services for 21% ($n = 52$) of youth, MST for 21% ($n = 53$), residential placement for 46% ($n = 114$), and DOC for just 7% ($n = 17$). Because of the low frequency of placements in DOC and disproportionate residential placement recommendations, the four categories for clinical placement recommendations and disposition were collapsed into two: youth who were returned to the community with either community-based or MST services (i.e., community) and youth who were placed in a residential treatment facility or DOC (i.e., secure). These two categories were then used in binary logistic regression analyses.

LOGISTIC REGRESSION ANALYSES

A series of binary logistic regressions tested the study's primary hypotheses. Independent variables were entered in three steps: demographic variables (gender, race/ethnicity, age), criminal or delinquent behavior variables (age at first offense, number of past offenses, total number of past offenses, severity of current offense), and psychosocial factors derived from the CANS-JJ measure. The overall significance of each regression model was determined by the model chi-square test, with a significance level of $p \leq .05$ indicating a good-fitting model. Wald statistics determined the significance of each independent variable entered into the regression. The proportion of variance accounted for after each step was assessed with Cox and Snell and Nagelkerke R^2 statistics.

Clinicians' recommendations. Results of the first logistic regression, predicting clinicians' placement recommendations, are presented in Table 3. In the first step, demographic variables, including age at the time of the evaluation, gender, and race/ethnicity, were entered simultaneously. None of these variables significantly predicted the dependent variable, and the overall model after this step was nonsignificant ($\chi^2 = 1.47$, $df = 1$, $p = .69$).

The second block of variables included current offense and history of delinquency as obtained from court records. Two of the five variables in this step emerged as significant predictors of clinicians' recommendations: custodial status at the time of the evaluations ($\beta = -0.61$, $p < .05$) and age at first offense ($\beta = -0.21$, $p < .05$). The severity of the offenses, total number of prior offenses, and whether youth had violated probation were not significant predictors of clinicians' recommendations. Although the inclusion of this set of variables resulted in a significant increase in the model's fit ($\Delta\chi^2 = 12.49$, $df = 5$, $p < .05$), the overall model remained nonsignificant ($\chi^2 = 13.96$, $df = 8$, $p = .08$).

The final block of variables included the five CANS-JJ factors. A forward selection method was used to identify those factors that contributed to the overall model's prediction of clinician recommendations. The Externalizing Problems factor was the first to emerge as a significant predictor ($\beta = 0.30$, $p < .001$; $\chi^2 = 30.45$, $df = 1$, $p < .001$). Family Dysfunction entered in the second step ($\beta = 0.10$, $p < .001$; $\chi^2 = 13.46$, $df = 1$, $p < .001$), and the Substance Use or Delinquency factor entered in the third step of the equation ($\beta = 0.09$, $p < .05$; $\chi^2 = 5.96$, $df = 1$, $p < .05$). After the inclusion of this block of predictors, the overall model fit was significant ($\chi^2 = 63.82$, $df = 1$, $p < .001$), accounting for nearly one third of the variance in clinicians' recommendations ($R^2 = .31$).

TABLE 3: Significant Predictors in Logistic Regressions Predicting Clinician Recommendations and Sentencing Decisions

Predictor	Clinician Recommendation			Sentence		
	β	SE β	e ^B	β	SE β	e ^B
Step 1. Demographic variables						
$\chi^2(df)$		1.47 (3)			2.06 (3)	
R^2		.01			.01	
Step 2. Delinquency variables						
Age at first offense	-0.21*	0.10	0.81	-0.11	0.11	0.89
Custodial status	-0.61*	0.28	0.54	-1.07***	0.29	0.34
Constant	0.49	1.60				
$\chi^2(df)$		13.96 (8)			24.29** (8)	
R^2		.08			.13	
Step 3. CANS-JJ variables						
Substance use or Delinquency	0.09*	0.04	1.09	—	—	—
Family Dysfunction	0.10***	0.03	1.11	—	—	—
School Problems	—	—	—	0.39*	0.07	1.48
Externalizing Problems	0.30***	0.06	1.36	0.19***	0.08	1.21
Constant	-4.89	-4.33				
$\chi^2(\text{Model})$		63.82*** (11)			70.86*** (10)	
R^2		.31			.35	

Note. CANS = Child and Adolescent Needs and Strengths.

* $p < .05$. ** $p < .01$. *** $p < .001$.

Judges' sentences. The second logistic regression used the same series of steps to predict judges' sentencing or dispositional decisions. These results are displayed in Table 3. In the first step, none of the demographic variables emerged as significant predictors of sentences to community or secure placements, and the overall model was nonsignificant ($\chi^2 = 2.06$, $df = 3$, $p = .56$).

In the second step, including each of the offense or delinquency variables, custodial status was the only significant predictor of judges' decisions ($\beta = -1.07$, $p < .001$). This step resulted in a significant increase in the model's fit ($D\chi^2 = 22.23$, $df = 5$, $p < .001$) and an overall significant model ($\chi^2 = 24.29$, $df = 8$, $p < .01$). Custodial status alone accounted for 13% of the variance in decisions. Using a forward selection method in the third step, two additional predictors emerged as significant. First, the Externalizing Problems factor was selected ($\beta = 0.39$, $p < .001$), resulting in a significant increase in the fit of the model ($\Delta\chi^2 = 41.35$, $df = 1$, $p < .001$). Second, the School Problems factor was selected ($\beta = 0.19$, $p < .05$), significantly increasing the fit of the model ($\Delta\chi^2 = 5.23$, $df = 1$, $p < .05$). The overall model was highly significant ($\chi^2 = 70.86$, $df = 10$, $p < .001$), accounting for more than one third of the variance in dispositional decisions ($R^2 = .35$).

Judges' sentences and clinical recommendations. Two additional logistic regression analyses examined whether the significant predictors of judges' sentences remained significant after clinicians' recommendations were included in the model. First, a binary logistic regression, with the same sequential entry of variable blocks used in the preceding analysis (i.e., demographic, offense or delinquency history, and CANS-JJ psychosocial factors), used a forward selection method to enter only those predictors significant to the model,

TABLE 4: Logistic Regression Predicting Sentence With Clinicians' Recommendations Included

Predictor	Sentence		
	B	SE β	e ^B
Step 1			
Clinician placement recommendation	3.24***	0.36	25.63
Constant	1.87		
$\Delta\chi^2(df)$	112.71*** (1)		
R^2	.51		
Step 2			
Custodial status	-1.18***	0.37	0.31
Constant	-3.24		
$\Delta\chi^2(df)$	10.75*** (1)		
R^2	.55		
Step 3			
CANS—School Problems	0.16	0.10	1.18
CANS—Externalizing Problems	0.25**	0.08	1.29
Constant	-6.67		
$\Delta\chi^2(df)$	15.95*** (2)		
R^2	.60		

Note. CANS = Child and Adolescent Needs and Strengths.

* $p < .05$. ** $p < .01$. *** $p < .001$.

allowing the selection of a smaller set of variables for use in further analyses and yielding similar results to the preceding analyses. In Step 1, no predictors were significant; in Step 2, custodial status was significant ($\beta = -1.15$, $p < .001$; $\chi^2 = 18.14$, $df = 1$, $p < .001$); and in Step 3, Externalizing Behaviors ($\beta = 0.39$, $p < .001$) and School Problems ($\beta = 0.18$, $p < .05$) were significant and yielded a significant model ($\chi^2 = 66.22$, $df = 3$, $p < .001$).

The final logistic regression model included clinician recommendations and the three other predictors (custodial status, Externalizing Behavior, and School Problems) identified above. Results are reported in Table 4. Clinician recommendations were entered first because they were hypothesized to be the strongest predictors of judges' decisions. This variable was highly significant ($\beta = 3.28$, $p < .001$; $\chi^2 = 112.71$, $df = 1$, $p < .001$) and accounted for more than half of the variance in sentencing decisions ($R^2 = .51$). In the second block, custodial status was significant ($\beta = -1.18$, $p < .001$; $\chi^2 = 10.75$, $df = 1$, $p < .001$); and in the third block, the addition of the two CANS-JJ factors increased the fit of the model ($\Delta\chi^2 = 15.95$, $df = 2$, $p < .001$). However, the School Problems factor was no longer a significant predictor ($\beta = 0.16$, $p = .09$). This model accounted for 60% of the variance in decisions. Thus, the addition of custodial status and CANS-JJ factors in the model contributed an additional 10% of explained variance to the model beyond clinicians' recommendations.

DISCUSSION

The current study supports previous findings that judges are inclined to adopt clinical recommendations at the disposition phase, and it suggests that the material provided by comprehensive clinical evaluations could diminish the effects of offense- or delinquency-based factors in dispositional planning. Clinicians' recommendations alone explained more than half of the variance in judges' decisions. The strong significance of this predictor

suggests that judges make particular use of the placement recommendations of clinicians; however, our findings also indicated that clinical variables addressed in forensic reports, including externalizing behaviors and school problems, contribute to outcomes. Despite some similar predictors, clinicians and judges appear to emphasize different psychosocial risk factors when considering dispositional options.

The Externalizing Behaviors factor—a significant predictor for both clinicians and judges—included ratings of dangerousness to others, anger control, and antisocial behavior. Youth with higher scores on this measure were more likely to meet diagnostic criteria for conduct disorder and to have a history of uncontrolled verbal aggression and physical violence and frequent threats against others. Hence, many of these behaviors constituted a direct threat to public safety and social order. They were also more salient and distressing to outside observers, thus potentially increasing overall judgments of dysfunction, especially in a legal context. Ratings of externalizing behaviors were unrelated to the severity of current offense and only weakly related to the early onset of offending and prior offenses, suggesting that this factor was clinical, rather than legal, in nature. Nevertheless, among all the psychosocial variables measured, it was the single most relevant variable to disposition decisions and proved to be the most significant in regression models.

Judges were more likely to order secure placement as ratings of school problems increased. Poor school achievement and truancy are both predictors of recidivism among youthful offenders, which could explain the importance of this variable (Chang et al., 2003). However, a more practical explanation could be that school problems, particularly a low commitment to school and poor attendance, hinder the court's ability to effectively monitor youth. Secure placements might be more likely when youth refuse to attend school and have increased access to delinquent peer groups during daytime hours, increasing their opportunities to engage in delinquent and criminal activities.

The only criminal or delinquency variable that predicted judges' decisions was custodial status at the time of the evaluation. Custodial decisions are made during detention hearings. Although more informal than dispositional hearings, they involve similar factors and decision-making processes (Niahros & Routh, 1992). The regression model, including only custodial status, was significant and accounted for nearly 13% of the variance in judges' decisions, indicating that offense-based variables are important at sentencing. The introduction of clinical variables in the form of a psychological evaluation significantly broadens the scope of the information considered, and indeed psychosocial variables contributed to judges' decisions.

Given the significance of clinical recommendations in juvenile court outcomes, it is important to understand which variables contribute to clinical decision making. As previously noted, externalizing behavior problems significantly predicted clinicians' placement recommendations. Other significant predictors included family dysfunction, substance use and delinquency histories, and age at first offense. For each of these risk areas, there is a corresponding literature to support its consideration in dispositional planning.

Concerns about parents' abilities to manage their children through appropriate supervision and discipline could affect the feasibility of recommending placement in the community. Poor family management practices and disengaged or unresponsive parenting increase youths' access and opportunity to engage in delinquent and criminal behavior (Barnes & Farrell, 1992; Brown et al., 1993; Kim, Hetherington, & Reiss, 1999; Vazsonyi & Flannery, 1997) and can mitigate treatment successes (Eddy & Chamberlain, 2000). A parent's

ability to participate in and support outpatient treatment is critical to the rehabilitation of delinquent youth in a community setting. As a result, secure placement might be the only option in the face of significant family dysfunction.

Other research has established the link among drug and alcohol use, history of delinquent behaviors, and future recidivism (Cottle et al., 2001; Niahros & Routh, 1992). Thus, it is unsurprising that substance use and delinquency predicted clinicians' recommendations. Secure placements might be considered necessary for youth with such problems. Residential treatment options have the potential benefit of isolating youth from negative community influences and creating a more controlled treatment environment (Kaminer & Bukstein, 2005). However, treatment gains might not generalize when youth return to the community. Moreover, housing delinquent peers in intervention settings can have iatrogenic effects, particularly when youth without significant preexisting behavioral problems are placed in these settings (Dishion, McCord, & Poulin, 1999; Mager, Milich, Harris, & Howard, 2005).

With regard to criminal or delinquency variables, clinicians were more likely to recommend secure placement for youth who were younger at the time of their first reported offense and for those who were in custody at the time of the evaluation. Other research has shown that age at first offense distinguishes recidivist from nonrecidivist youth and that earlier onset of conduct problems is associated with poorer behavioral outcomes (Archwamety & Katsiyannis, 1998; Ashford & LeCroy, 1990; Loeber & Farrington, 2000; Moffitt, 1993). As noted above, custodial decisions likely reflect important considerations of community safety that remain relevant at disposition.

Previous studies that found little or no effect of psychosocial information and clinical evaluations on sentencing decisions have suggested that such evaluations contribute little to legal decision making (Niahros & Routh, 1992). However, other studies have suggested that psychological assessments provide valuable information that does, in fact, affect court dispositions (Hecker & Steinberg, 2002; Hoge, 1999; Jaffe, 1985). Thorough psychological evaluations can clarify the etiology of delinquent behavior and identify treatment needs and community-based placement options with firm grounding in a substantial body of clinical research. Recognizing the relationship between mental health problems and delinquency could reinforce a rehabilitative orientation and increase the likelihood of treatment rather than correctional responses (Breda, 2001). This study supports the notion that judges' decisions are influenced by the information contained in psychological assessments as well as clinicians' specific recommendations.

Consistent with other investigations using regression models to predict dispositions (e.g., Niahros & Routh, 1992), this study found that the predictors accounted for a moderate proportion of variance in judges' decisions. In the first two regressions, approximately one third of the variance in clinicians' recommendations and judges' decisions was accounted for by the independent variables. Even with clinicians' recommendations included in the model, 40% of the variance in judges' decisions was unexplained. Thus, other, unmeasured variables affect clinical and legal decision making. Some variables, such as behavioral observations, youths' courtroom demeanor, or biases of the decision maker, are particularly hard to quantify, especially when using a retrospective case review approach. Other variables that influence dispositional decisions, such as the recommendations of prosecutors, were unavailable for inclusion in this study. The unique characteristics of the juvenile court system, specific courtroom, or clinic under investigation might also contribute to variability both within and among studies.

A multinomial logistic regression analysis was originally proposed to explore how the various predictors related to each of the four possible dispositional alternatives. Given the skewed distribution of the four alternatives, particularly the low number of youth sent to DOC, we could investigate the predictors of only a dichotomous outcome: community versus secure placement. Few youth were ordered to DOC (7%), but a plurality (54%) was placed in secure settings. Although a large proportion of youth in this study were charged with nonviolent property offenses, which would indicate no need for secure placement, relevant clinical information (i.e., externalizing behaviors) was more predictive of outcomes than legal charges alone. If youthful offenders with more serious and complex clinical needs were channeled to higher levels of care regardless of their charges, this would be a positive finding suggesting an individualized approach to juvenile justice.

The findings of the current research contradict the notion that juvenile courts are increasingly using an offense-based approach to sentencing; however, we note two important caveats. First, this study analyzed cases in which judges or other court personnel actively sought clinical information. At a minimum, the act of requesting a psychological evaluation bespeaks openness to information beyond offense and criminal or delinquency history and could suggest, overall, a more rehabilitative rather than punitive orientation. It is also possible that youth in this sample were more likely to be diverted from correctional to treatment settings by virtue of having undergone a clinical evaluation. Unfortunately, this study lacked a comparison group of nonevaluated juveniles.

Second, this study examined a unique court-based clinic that was designed to be responsive to judges' requests for clinical consultation. The CCJCC and its process for psychological evaluations were established after considerable research on how Cook County judges use clinical information. Judges are provided with timely, relevant, and comprehensive clinical information, which has increased the court's investment in such evaluations (Lurigio & Swartz, 2006). Clinicians are employed by the court, and the clinic is assisted by clinically trained liaisons who are a regular presence in local courtrooms. Given the unique aspects of the clinical consultation process that was investigated here, it is unclear whether these results are generalizable to other jurisdictions, which is a concern of other research conducted in this area.

Juvenile court systems vary in the number of courtrooms and judges, whether judges are appointed or elected, the extent of judges' professional experience with juveniles, and the number of cases processed each year. The availability and placement of clinical consultants (court-based clinicians or private evaluators) could also affect how clinical advice is used. Finally, characteristics of the surrounding community (rural, urban, suburban; resource availability; political climate) can contribute to jurisdictional differences. All of these issues require further investigation and would best be studied through meta-analyses of studies of different jurisdictions.

The time is ripe for future research to include cross-jurisdictional comparisons of how clinical information is used in juvenile courts nationwide. In recent years, psychologists have begun submitting more clinical reports than ever to the juvenile courts, several local court systems have implemented procedures to enhance coordination among mental health and juvenile justice professionals (Hoge, 1999), and many clinics have adopted standardized evaluation procedures to ensure that reports are useful for referring parties (Hecker & Steinberg, 2002). To advance this line of research, investigations must begin to use standard methods for studying key psychosocial and legal predictors and identifying the characteristics

that make each jurisdiction and consultation process unique. Such investigations would lay the foundation for future meta-analytic research. This study illustrated the use of the CANS-JJ, a reliable and valid measure that generated five empirically sound clinical factors. The CANS-JJ is an open-domain tool that has been applied in other jurisdictions and studies and is easy to use in coding archival data.

Research on juvenile offenders with mental health problems should also be expanded to include both the longer chain of decisions that precede sentencing and the outcomes following placement decisions. Previous research has documented how demographic variables (e.g., gender, age) differentiate mental health from juvenile justice system referrals and predict referrals for mental health services by the juvenile justice system (Herz, 2001; Westendorp, Brink, Roberson, & Ortiz, 1986). Countless youth enter the juvenile justice system with significant mental health needs or school, family, and community risk factors that could be identified and treated through psychological consultation and intervention. A substantial proportion of youth never undergo a comprehensive psychological evaluation because of a lack of time, resources, and effective screening processes. A series of decision points—from the police agency that decides whether to refer a youth to court to the state's attorney who decides whether to bring charges—though outside the scope of this study, also warrant examination.

The current study indicated that psychosocial factors contribute to sentencing decisions beyond offense characteristics. It also showed that clinicians significantly contribute to the legal decision-making process through comprehensive, relevant, and timely clinical evaluations. A determination of the usefulness of these evaluations for court-involved youth would entail an assessment of whether the full range of clinical recommendations has been implemented, including therapeutic and supportive services; whether implementation resulted in successful treatment outcomes; and whether treatment success resulted in an appreciable reduction of mental health problems and reoffending. Nonetheless, the substantial effect of clinicians' recommendations on sentencing decisions affirms the utility of their opinions in this process. Judges frequently adopted placement recommendations, suggesting that the evaluations were useful to the court and have the potential to benefit youthful offenders.

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