

## *Chapter Four*

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### **Juvenile Justice**

*Chapter Four — Juvenile Justice*

# The Impact of External Environment on Service-Related Decisions of Juvenile Courts

Carolyn S. Breda

## Background

Theory suggests that an organization's decisions are a function of conditions in its external (as well as its internal) environment (Aldrich, 1979; Hall, 1987; Zald, 1970). For juvenile courts, key decisions are whether to refer young offenders to therapeutic services or to place them in custody. This research assesses the external environment of juvenile courts and whether this environment relates to their treatment or custody decisions.

## Method

In 1997, a statewide survey was administered to all courts with juvenile jurisdiction in a Mid-Southern state. All but two of the 98 courts responded with a completed interview provided by either the judge or a youth service officer. This research was based on 71 of the courts from whom a completed survey was obtained from the judge. Together, these courts handled over 33,000 youth during 1997 who were referred to them for either a status or delinquency offense.

## Measures

### Court Decisions

Three measures of service-related decisions were assessed, based on courts' offender population only: (1) courts' rate of referral to mental health (MH) services; (2) courts' rate of referral to substance abuse (A&D) services; and (3) courts' custody rate.

### External Environment

**Relationships with Other Agencies.** *Frequency of contact* was the mean rating of courts' contact with five child-serving agencies in their community—corrections, education, social services, health, and mental health—on a 4-point scale, ranging from less than monthly to daily. Mean *quality of relationships* was ranked on a 5-point scale, from very poor to excellent, and included ratings of relationships with the child-serving agencies, as well as with providers of nonresidential services, providers of residential services, and the assessment care and coordination team (ACCT) in the community.

**Service Resources.** Two measures assessed the *availability of service-related resources* in the court's community. First, records from the American Hospital Association's Guide to the Health Care Field, the state's Client Operations Resource System, and provider lists from the state's two behavioral health organizations provided an objective count of mental health-related services available in each community. Second, judges rated the adequacy (which reflects "availability" and "accessibility") of services in their community on a 4-point scale (inadequate to adequate) and the quality of services on a 5-point scale (very poor to excellent) for 19 mental health-related services.

**Community Social Capital.** For each court's county, census data (1990) were used to assess the following community demographics: (1) SES (e.g., percentage college-educated, median household income); (2) the percentage of the population that lives in an urban area; and (3) its ethnic composition (i.e., percentage Caucasian).

**Community Mental Health Orientation (CMHO).** CMHO was the mean of judges' ratings (on a 4-point scale) of how strongly they thought their community might disagree or

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agree with the following statements: 1) juvenile offenders can be rehabilitated, 2) the mental health status of offenders should factor into case dispositions, and 3) mental health interventions are an appropriate court response to juvenile offenders.

## Results

Table 1 presents descriptive findings. On average, courts referred about 3% of offenders to mental health services and about 4% to A&D services. Their rate of custody was about 8%. Mental health and A&D referral rates were considerably lower than what might be expected given estimates of need among offender populations (Otto, Greenstein, Johnson, & Friedman, 1992). Regarding *interagency relations*, courts had nearly “weekly, but less than daily” contact overall with other child-serving agencies in their community ( $Mn = 2.8$ ). They had the most frequent contact with the education and social service sectors, intermediate contact with corrections, and the least contact with the health and mental health sectors. Over a quarter (26%) of the courts reported less than monthly contact with mental health agencies. The quality of courts’ relationships with other agencies overall was nearly “good” ( $Mn = 3.7$ ). Their most positive relationships were with education ( $Mn = 4.2$ ). Courts’ most negative relationships were with mental health ( $Mn = 3.5$ ), and particularly with providers of residential and nonresidential services, which were rated somewhat better than “fair” ( $Mn = 3.4$ ).

Among the 27 *service resources* documented in the multiple services data sources, courts had an average of about seven in their community. Most (85%) courts had a psychiatric hospital or a general hospital with psychiatric beds in their community. Far fewer (16%) had a hospital with specialized psychiatric facilities for children, and few (20-30%) had hospital-based psychiatric services (e.g., as consultation, education, or emergency care). Only a quarter of courts had day treatment/partial hospitalization services available locally. Consistent with the movement toward community care, most (85%) courts had a community mental health center and outpatient A&D services available; less than half (45%) had inpatient/residential A&D facilities. A state-supported group home was available in about half (47%) of the courts’ communities.

Overall, judges perceived service adequacy to be “somewhat inadequate” ( $Mn = 2.1$ ). Education-based services, including truancy programs and alternative schools, were more adequate than others,

**Table 1**  
Descriptive Results

	Mean	Range	SD
MH Referral Rate	2.7%	0-15%	3.6%
A&D Referral Rate	3.8%	0-26%	5.1%
Custody Rate	8.4%	0-24%	5.6%
<i>Interagency Relations</i>			
Frequency of contact	2.8	1.0-4.0	.7
Quality of contact	3.7	1.9-5.0	.7
<i>Service Resources</i>			
Availability (record reviews)	7.4	0-23	5.3
Adequacy (judges’ ratings)	2.1	1.0-3.9	.6
Quality (judges’ ratings)	2.8	1.1-4.7	.8
<i>Social Capital</i>			
% College-educated	10.0%	4-34%	5.5%
Median HH income	\$21,910	\$13,924-43,615	\$4,714
% Caucasian	91.0%	50-99%	11.5%
% Urbanized	29.6%	0-99%	25%
Community MHO	2.6	1-3.7	.6

although less than 30% of judges rated even these programs as “adequate.” Judges’ ratings of service adequacy and the record-based measure correlated modestly ( $r = .26$ ;  $p = .03$ ), suggesting that, while judges’ ratings provided somewhat different information on service adequacy than the record reviews, judges could be modestly reliable informants about the adequacy of services in their community. Judges also perceived service quality to be below average ( $Mn = 2.8$ ). School-based truancy programs and alternative schools were better than others, though they still were rated only slightly better than average.

Measures of *communities' social capital* indicated that, overall, about 10% of residents had a college degree, with an average annual household income (1990) of about \$22,000. About 90% of residents were Caucasian; and 30% of all residents lived in an urban area. On average, communities were between “somewhat disagreeing” and “somewhat agreeing” with a *mental health orientation* toward juvenile offenders ( $Mn = 2.6$ ).

Table 2 shows zero-order correlations between measures of courts' external environment and the three court outcomes. More frequent contact between the court and other child-serving agencies seemed to promote use of mental health interventions ( $r = .29$ ), though not of A&D services or custody. Quality of interagency relationships was unrelated to all three of the court decisions. There was some tendency, based on the objective measure of service availability, for courts in more service-rich counties to have higher mental health service referral rates ( $r = .18$ ;  $p = .13$ ) than those in more service-poor communities. However, service availability was unrelated to courts' use of A&D services and custody. Yet, judges' *subjective* ratings of services indicated significantly higher rates of custody when they perceived services in their community to be inadequate ( $r = -.21$ ) or of poor quality ( $r = -.27$ ). However, judges' perceptions of services had little to do with their use of mental health or A&D services.

The rate of mental health referrals (though not of A&D or custody) tended to be higher among courts in more urban areas ( $r = .21$ ). Other findings (not tabulated) also suggested that urban areas had more service resources ( $r = .81$ ) and greater social capital (e.g., percentage college-educated;  $r = .75$ ) than less urban communities. Higher SES communities (which is correlated with urbanization) also had greater service resources ( $r = .71$ ); however, the correlation between SES and service resources fell ( $r = .25$ ) when level of urbanization was statistically controlled. And, as shown in Table 2, community SES was unrelated to courts' service decisions. Finally, a stronger mental health orientation within the community served by the court tended to be associated with lower rates of custody and lower rates of mental health referrals. However, neither of these correlations met typical criteria for statistical significance.

**Table 2**  
Bivariate Correlations Between Juvenile Courts' External Environment and Their Mental Health, A&D, and Custody Rates

	<i>MH</i>	<i>A&amp;D</i>	<i>Custody</i>
<i>Interagency Relations</i>			
Frequency of contact	.29 <sup>a</sup>	-.02	.14
Quality of relations	-.19	-.12	-.07
<i>Service Resources</i>			
Availability (record reviews)	.18	.06	.00
Adequacy (judges' ratings)	-.05	.01	-.21 <sup>b</sup>
Quality (judges' ratings)	-.07	-.04	-.27 <sup>a</sup>
<i>Social Capital</i>			
% College-educated	.11	-.01	-.03
Median HH income	.08	-.03	.07
% Caucasian	-.22 <sup>b</sup>	.14	-.16
% Urbanized	.21 <sup>b</sup>	.05	.08
<i>Community MHO</i>	-.18	-.04	-.17

Notes: <sup>a</sup> $p < .05$ , <sup>b</sup> $p < .10$

### Summary and Discussion

This research provides some support for the premise that service-related decisions by juvenile courts are conditioned by their external environment. Mental health referral rates were higher for courts located in urban areas having more service resources, and for courts that maintain more frequent contact with other child-serving agencies. This suggests that the problem of facilitating services for juvenile offenders is particularly acute in more rural communities, where courts have fewer service resources to draw upon and residents have less social capital (e.g., lower SES) with which to advocate for them. Other researchers (e.g., Rogers, Powell, & Strock, 1998) have suggested that the needs of many juvenile offenders, and of offenders of color in particular, may not receive

adequate attention because many live in lower SES communities where few mental health services are available. The present findings also suggest that youth who live in lower SES communities have access to fewer services. However, offenders who live in urban communities, who are disproportionately of color, have more services potentially available to them and more mental health referrals through the courts, than youth who live in less urban areas. Thus, the impact of community SES on offenders' service access may be better understood in conjunction with level of urbanization. On the other hand, A&D referral rates were unrelated to every measure of community context considered. Other research (Breda, 2000) indicates that the decision to refer juvenile offenders to A&D services is strongly affected by whether their offense involved alcohol or drugs. The present research suggests that a court's community context adds little more to this equation. Further, decisions to place offenders in custody are significantly more likely when judges perceive services to be inferior, both in terms of availability and quality. In contrast, the more objective measure of service availability is unrelated to custody rates. This finding underscores the importance of perceptions for understanding custody decisions. Providing more, or better, mental health services may be insufficient to reduce custody rates without steps to concomitantly upgrade key decision makers' perceptions of these services. Overall, findings suggest that an organizational approach that considers community-level variables can contribute to our understanding of service delivery for juvenile offenders.

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# Arrest Patterns into Adulthood of Adolescents with Serious Emotional Disability

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## Introduction

Youth in transition to adulthood with serious emotional disability (SED) have especially high rates of corrections involvement. Studies following adolescents with SED into adulthood report that between 21-58% of these youth were arrested (Vander Stoep, Davis, & Collins, 2000; Wagner, 1995, Brown & Greenbaum, 1994, Vander Stoep, Taub & Holcomb, 1993). Several risk factors were identified for having been arrested (Vander Stoep et al, 2000; Brown & Greenbaum, 1994; Wagner, D'Amico, Marder, Newman, & Blackorby, 1992). These studies either combined juvenile and adult charges, or only examined juvenile records. Similarly, 27% of all 17-year-old males served in Vermont's children's systems had been incarcerated within three years (Pandiani, Banks, Schacht, & Bagdon, 2000). These studies have not examined whether juvenile and adult corrections involvement differ over time.

## Method

This study examined Massachusetts automated court records (CORI) of all arrests by the age of 25 in 82 individuals who had received Boston-area intensive public adolescent mental health services between 1988 and 1994. CORI chronicles all arraignments, charge types, and dispositions for all non-federal courts in the state. Clinical records from individuals' targeted adolescent treatments were also examined. Half the of the adolescents and young adults were males (51%), 38% were of minority race, and 49% were from single-parent households. These individuals had averaged 4.9 ( $\pm 4.8$ ) out-of-home placements, and 2.9 ( $\pm 2.0$ ) psychiatric hospitalizations. The most common primary chart discharge diagnoses were Affective Disorders followed by Disruptive Behavior, Psychotic, and Anxiety Disorders. This group represents adolescents and young adults with SED that have had extensive contact with intensive mental health treatment.

Basic descriptive statistics were used to describe patterns of arrest over time, and differences between adult and juvenile charges. Regression tree (CART) analyses were used to examine different risk factors for juvenile, and adult arrest. The following variables were examined: (1) gender; (2) minority status; (3) number of out of home placements; (4) number of hospitalizations; (5) history of substance abuse placements (yes/no); (6) history of foster care involvement (yes/no); (7) history of residential treatment (yes/no); (8) type of target program; (9) length of stay; (10) clinical discharge diagnosis; and (11) admission age. In addition, an analysis of adult arrest that added juvenile arrest (yes/no) and adjudicated delinquent (yes/no) was conducted.

CART selected a risk factor by determining the most statistically significant ( $p < .05$ ) association with arrest (juvenile, adult; yes/no). Once a risk factor was selected, the sample was partitioned using that risk factor. This process was repeated on the partitioned samples until: (1)  $n < 5$ ; (2) partitioning did not distinguish different levels of risk; or (3)  $n < 8$  and the finding did not apply to the majority in the group. In this study, high (low) risk is defined as an odds ratio 3 times the baseline odds of arrest.

## Results

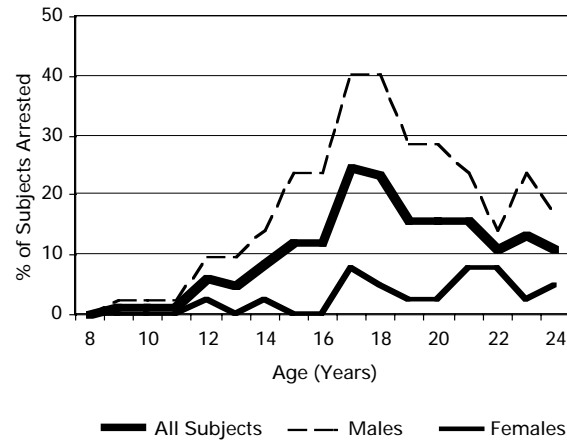
### Juvenile and Adult Arrest Rates

By age 25, 56.1% of adolescents and young adults had been arrested. Six percent had only juvenile records, 27% had only adult records, and 23% had both, with differences between males and females. A larger portion of males than females had both juvenile and adult records (42.9% and 2.5% respectively) while similar proportions had only adult (28.6% and 25.0% respectively) or only juvenile charges (9.5% and 2.5% respectively).

### Patterns of Arrest Across Ages

The earliest age of arrest was 9 years. The hazard rates for *first* arrest revealed the maximum at age 17 for girls (8.5%) and age 18 for boys (34.5%). In boys, rates increased from ages 13-17 (5.9-21.1%), then declined after age 18 to a rate of 0 at age 22. Thus, boys not arrested by age 22 were unlikely to be arrested by age 25. In girls, first arrest risk was low until age 17 (0-2.7%), declined to 0 at age 20, rose again at age 22 (6.7%), and declined to 0 at age 24. Examining the proportion of individuals arrested at each age revealed a peak at ages 17 and 18 (23-24%). At each age more males than females were arrested, and the proportion of females arrested rose at 17 and remained relatively elevated until age 25 (see Figure 1).

Figure 1  
Proportion of Youth with SED  
Arrested up to the Age of 25  
(N=82)



### Number and Type of Charges

Among charged adolescents and young adults, the number of juvenile charges per individual was considerably lower (interquartile range = 0-2, range = 0-177) than the number of adult charges (interquartile range = 1-13, range = 0-66). Juvenile charges were more commonly property charges, whereas adult charges were more commonly person charges (see Table 1). Adult charges also included more public nuisance and drug charges. Juveniles had a higher proportion of property crimes than the general population under 18, and lower rates of person, drug and public nuisance charges. Adults had a higher proportion of person and property charges than the general population over 18. Much of the differences within adult charges are accounted for by the large portion of drug charges among the general population. The smaller proportion in individuals may in part reflect different local practice (Massachusetts Chief Administrative Justice, 1991).

### Risk Factors for Arrest

**Juvenile Arrest.** Three high risk (>57.5% arrested) and two low risk (<13.1% arrested) groups were identified for juvenile arrest, capturing 85.7% of subjects. All girls were low risk ( $n = 37$ ; 5.4% arrested). There was one low risk male group, which consisted of those in residential or day treatment programs whose length of stay was less than 32.5 days ( $n = 5$ ; 0% arrested). Boys in residential or day treatment whose length of stay was between 32.5 and 64 days were at high risk ( $n = 5$ ; 80% arrested). Boys 16.4 years or older admitted to hospital programs were at particularly high risk ( $n = 14$ ; 92.9% arrested). Boys younger than 16.4 years who had more than 3.5 out-of-home placements were at moderately high risk of arrest ( $n = 5$ ; 60% arrested).

**Adult Arrest.** Four high risk (>76.3% arrested) and one low risk (<26.3% arrested) groups were identified for adult arrest, capturing 66.2% of subjects. Admission age rather than gender was the variable that best differentiated high and low risk (see figure 2). In two groups of youth, 100% were arrested; those admitted at ages less than 17.1 years with lengths of stay that were less than 40 days, and those whose lengths of stay were greater than 40 days but admission age was less than 15.7 years. For those admitted who were over the age of 17.1, gender again played a role, with one low risk girls' group (those without a primary diagnosis of Adjustment Disorders). Among those admitted at over 17.1 years of age, boys had two high risk groups.

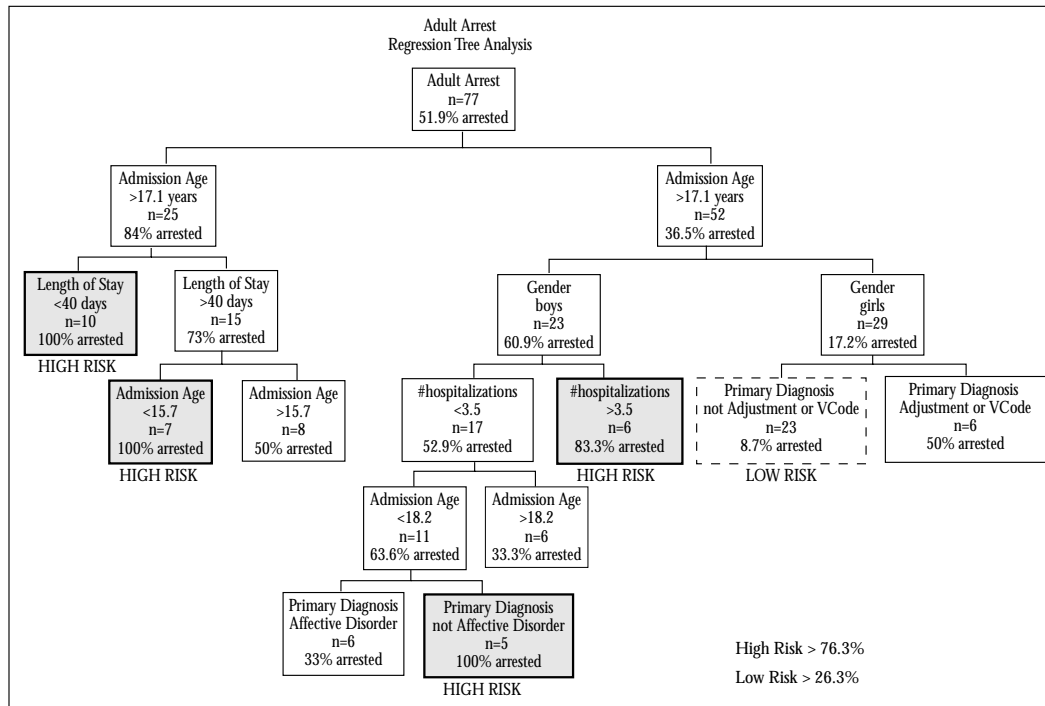


**Table 1**  
Proportion of each type of juvenile and adult charges for youth with SED and the general population

Type of charge	Youth with SED		General Population*	
	% of Juvenile Charges (n=275)	% of Adult Charges (n=431)	% of Charges <18 years old (n=1,246,004)	% of Charges 18-24 years old (n=3,407,495)
Serious person	6.9	25.1		
Lesser person	0.7	8.3		
<b>Total Person</b>	7.6	33.4	13.4	12.1
Serious property	42.5	15.5		
Lesser property	21.1	8.8		
Unknown property	15.3	6.5		
<b>Total Property</b>	78.9	30.8	47.9	21.1
Serious sex	0.4	0.2		
Lesser sex	0.0	0.5		
<b>Total Sex</b>	0.4	0.7	1.0	1.3
Serious drug	1.1	5.1		
Lesser drug	0.7	8.1		
<b>Total Drug</b>	1.7	13.2	14.2	33.4
Public nuisance	9.5	20.2	21.4	30.3
Weapons	1.8	1.9	2.1	1.3
Status	0	N/A	---	

\* General Population data from Bureau of Justice Statistics, 1991, table 4.6

**Figure 2**  
Regression Tree Analysis of Risk Groups for Adult Arrest Among 77 Subjects with SED



**Adult Arrest with Juvenile Arrest Variables.** The variable that distinguished most individuals between high and low risk was having been adjudicated delinquent; of this group, all were arrested as adults ( $n = 13$ ). The remaining factors for those not adjudicated delinquent were very similar to the adult findings above. One noteworthy exception was finding a low risk male group of non-adjudicated boys who were admitted between the ages of 17.1 and 18.0 ( $n = 16.7\%$  arrested).

## Discussion

It is clear from these findings that while a significant proportion of youth with SED come into contact with the juvenile justice system, entry into adulthood introduces increased risk of arrest. The majority of youth with SED and having court records were first charged as adults. This was particularly true for females. However, the dearth of female juvenile records may in part reflect juvenile justice practice in the late 1980s and early '90s, which may not be current practice. The majority of adolescents and young adults with juvenile records had adult records also, although 32% were desisters. While this study did not directly examine service utilization by these youth and young adults, it is of great concern that the ages of highest risk of corrections involvement coincides with the ages at which children's services end in Massachusetts.

Property crimes are common, both in the general juvenile population and in this sample of youth with SED. On the other hand it is disturbing to see a much higher rate of adult person crimes among youth with SED than in the general population. It is interesting that drug charges were such a small portion of adult charges since the prevalence of substance use disorders greatly increases as adolescents with SED enter adulthood (Greenbaum, personal communication in Davis & Vander Stoep, 1997).

It is also interesting that gender most distinguished risk groups for juvenile but not adult arrest. While there are a variety of differences between male and female offending, females share some of the same risk factors for adult arrest; i.e., being adjudicated delinquent, being younger at admission, and having shorter lengths of stay. These factors may either reflect insufficient treatment with more impaired youth, or earlier cessation of treatment during the high risk period. While there was no high risk group for females, girls who were admitted over the age of 17.1 with a primary diagnosis of Adjustment Disorders were a relatively high risk group (50% arrested). Since youth with SED *do not* generally have these primary diagnoses, this group may reflect a group of troubled girls that didn't fit services well (or who were perceived as such). The low risk group of boys (non-adjudicated and admitted at ages 17.1-18.0) may reflect reduced arrest risk if they were in treatment during the age of greatest arrest risk.

Overall, these findings indicate that it is crucial to understand what role services play and what services may intervene in the risk of arrest among youth with SED up to the age of 25. It is unclear whether some of the admission age and target program variables may relate directly to entering or exiting court or corrections facilities. There appear to be some differences between patterns of arrest in SED and the general population of arrested individuals that are important to understand. Perhaps most importantly, we need to understand processes that are amenable to intervention that lead to criminal activity and arrest in boys and girls with SED.

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# Identification and Referral for Mental Health Services in Juvenile Detention

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## Introduction

South Carolina is one of a number of states that have been sued in federal court and are currently functioning under a consent decree that mandates mental health treatment for youth with serious emotional disability (SED). The premise of the South Carolina lawsuit is that youth with SED were receiving inadequate mental health services as well as being housed in overcrowded and inadequate facilities (Alexander v. Boyd, 1990/1997). The prevalence of mental illness in juvenile detention facilities is estimated to be as high as 60% (Otto, Greenstein, Johnson, & Friedman, 1992). However, many juvenile correction facilities lack adequate mental health personnel and/or screening procedures for identifying and referring youth with emotional disturbances, and few facilities have the resources in place to address the needs of such youth (Anno, 1984).

The level of emotional and behavioral disturbance in detained youth is similar to levels found in an outpatient community mental health center population (Atkins et al., 1999). The determination of whether a youth will be detained in the juvenile justice system or treated in the mental health system is not always made at the level of psychopathology, but is influenced by demographic variables such as ethnicity, gender, and age (Westendorp, Brink, Roberson, & Ortiz, 1986; Shanok & Lewis, 1977). These same variables, in addition to recidivism and family environment, determine which youth will be referred for mental health services once detained in the justice system (Barton, 1976).

This study examined the mental health referral patterns of youth referred to a public sector mental health system as the result of a judicial consent decree. The purpose of this article is threefold: 1) to compare the prevalence rates of emotional disturbance in youth referred for mental health services as a result of a judicial consent decree with youth incarcerated but not referred for mental health services; 2) to investigate the behavioral symptomatology as measured by the Child Behavior Checklist (CBCL; Achenbach, 1991b) and Youth Self Report (YSR; Achenbach, 1991a) between these groups of youth; and 3) to investigate the impact of sociodemographic, criminal history, and service use on referral for mental health services.

## Method

This study included two samples of youth ages 13-17 from the entire state of South Carolina. The first group included incarcerated youth recruited from the South Carolina Department of Juvenile Justice (SCDJJ) central detention facility in Columbia ( $n = 120$ ). These youth were selected from the monthly rosters of the SCDJJ facility. The second group included youth referred to South Carolina Department of Mental Health (SCDMH) facilities as part of a judicial consent decree ( $n = 120$ ). Data were collected on both samples between January 1997 and December, 1997.

Three instruments were used in this study. The first was the Diagnostic Interview Schedule for Children, version 2.3 (DISC 2.3; Shaffer, Fisher, Dulcan, & Davies, 1996) which assessed major diagnoses found under the Diagnostic and Statistical Manual of the American Psychiatric Association, Third Edition, Revised (DSM-III-R; American Psychiatric Association, 1994). The DSM includes modules for anxiety disorders, mood disorders, psychosis, disruptive disorders, substance abuse disorders, and miscellaneous disorders such as eating disorders, tics, and elimination disorders. The frequency of diagnostic categories, the number of diagnoses, and the number of symptoms that contributed to meeting diagnostic criteria were analyzed. We did not include psychotic symptoms in the total symptom count since the psychosis module was designed as a screen and not a diagnostic module, and many of the symptoms could overlap with symptoms in other modules. As mentioned,

the other instruments utilized were the CBCL and YSR, which were used to assess behavioral and emotional symptoms. We analyzed the total, internalizing, and externalizing *T*-scores for each instrument.

Bivariate analyses were conducted using the chi-square test of proportions for discrete variables and analysis of variance (ANOVA) for continuous variables for differences between referred and detained youth. The dependent variable was being identified as mentally ill by lawsuit criteria. The independent variables were sociodemographic characteristics (age, gender, and ethnicity) and criminal history (repeat offender, non-violent offender), services use (mental health, foster care), and the presence of an emotional disorder. Furthermore, logistic regression analyses were performed to investigate the effects that each variable had on being identified as mentally ill and referred for further treatment. The model contained all variables that were significant at  $p < .10$  level in bivariate analyses.

## Results

### *Sample characteristics and level of emotional disturbance*

Sociodemographic characteristics, criminal history, lifetime service use, and presence of an emotional disorder are summarized in Table 1. The mean age was 17.1 years ( $SD = 1.4$ ) for referred youth and 15.6 years ( $SD = 1.0$ ) for detained youth. The percentage of female detainees in the referred group was substantially greater than the percentage of females in the total sample of detained youth ( $\chi^2 = 5.16, p = .023$ ). Although, the majority of youth in both the referred ( $n = 73, 61\%$ ) and detained sample ( $n = 92, 77\%$ ) were African American, more Caucasian youth were identified and referred for mental health services by the lawsuit ( $\chi^2 = 6.09, p = .014$ ).

### *Relationship between mental health problems and service use*

Seventy-one percent of referred youth ( $n = 85$ ) had previously used mental health services, while only 52% ( $n = 62$ ) of detained youth had used any mental health services. The mean number of treatment episodes was 2.1 ( $SD = 2.3$ ) for lawsuit youth and 1.0 ( $SD = .98$ ) for detained youth. More than half of referred youth (58%,  $n = 70$ ) and detained youth (51%,  $n = 61$ ) had any lifetime use of foster care services. Referred youth had a greater mean number of episodes of foster care placement ( $M = .90, SD = 1.01$ ) than detained youth ( $M = 2.0, SD = 1.2$ ).

### *Relationship between clinical need and referral status*

Overall, 96% ( $n = 115$ ) of referred youth and 69% of incarcerated youth ( $n = 83$ ) had a positive psychiatric diagnosis using the DISC. The most common diagnostic category was disruptive disorders for both referred ( $n = 51, 43\%$ ) and detained ( $n = 50, 42\%$ ) youth. Among youth with a disruptive disorder, attention-deficit hyperactivity disorder (ADHD) was more common ( $\chi^2 = 18.1, p = .0001$ ) in referred youth ( $n = 29, 24\%$ ) than in detained youth ( $n = 2, 2\%$ ). The second most common diagnostic category was anxiety disorders for both lawsuit ( $n = 66, 55\%$ ) and detained ( $n = 53, 44\%$ ) youth. Referred youth were more likely to have affective diagnoses than detained youth; however, they were less likely to have a substance abuse disorder. The psychosis screen, which is a screen that is often indicative of a psychiatric disturbance but not necessarily psychosis, was positive in both groups, but significantly higher in the referred group.

Comorbidity was common in this population. Detained youth had a mean number of 2.4 ( $SD = 2.7$ ) diagnoses while referred youth had 4.4 ( $SD = 3.3$ ) diagnoses. The mean CBCL Total *T*-score for both detained and referred youth were in the clinical range but did not differ significantly. Sixty-six percent ( $n = 79$ ) of referred youth and 29% ( $n = 35$ ) of incarcerated youth had scores in the clinical range when using a Total *T*-score of 70 (2 *SD* above the mean). However, when using a Total *T*-score of 60 (1 *SD* above the mean), 88% ( $n = 106$ ) of referred youth and 59% ( $n = 71$ ) of detained youth were in clinical range. The mean YSR Total *T*-score was elevated in the lawsuit youth and was significantly higher than in detained youth ( $F(2,239) = 9.77, p = .0021$ ).

**Table 1**  
**Sociodemographic Characteristics, Criminal History, Lifetime Service Use and Emotional Disorders of Detained and Lawsuit Youth: January 1997-December 1997**

	<i>Referred Youth</i>			<i>Non-Referred Youth</i>		
	<i>M (SD)</i>	<i>%</i>	<i>N</i>	<i>M (SD)</i>	<i>%</i>	<i>N</i>
Age (years)***	17.1 (1.4)			15.6 (1.0)		
Female*		16	19		7	8
Ethnicity						
African-American*		61	73		77	92
Caucasian		33	40		23	28
Other*		6	7		0	0
Criminal history						
Repeat offenders**		37	44		57	68
Nonviolent offenders**		73	88		90	108
Lifetime Service Use						
Mental Health*		71	85		52	62
Foster Care +		58	70		51	61
Emotional Disorder						
Anxiety +		55	66		34	41
Affective*		53	64		47	56
Disruptive		43	51		42	50
Psychosis Screen**		63	76		44	53
Substance Abuse***		8	10		21	25
Miscellaneous*		2	2		9	11

Percentages rounded to next whole number. +  $p \leq .10$ ; \* $p \leq .05$ ; \*\* $p \leq .01$ ; \*\*\* $p \leq .001$ .

**Anxiety:** includes obsessive compulsive disorder, panic disorder, separation anxiety disorder, simple phobia, social phobia, overanxious disorder, and generalized anxiety disorder.

**Mood:** includes major depressive disorder, dysthymia, and bipolar disorder.

**Psychosis:** includes positive psychosis screen.

**Disruptive:** includes conduct disorder, oppositional defiant disorder, and attention deficit disorder.

**Substance Abuse:** includes alcohol, marijuana, and other illegal drug abuse and/or dependence.

**Miscellaneous:** includes eating disorders, movement disorders, and enuresis/encopresis.

**Note:** One way ANOVA's performed with Bonferroni corrections for repeated measures with  $df=1$  for between group comparisons; for chi square analyses  $df=1$ .

**Table 2**  
**Prevalence of Diagnoses and Clinically Significant Disturbance in Incarcerated and Lawsuit Youth: January 1997-December 1997**

<i>Measure of Emotional Disturbance</i>	<i>Referred Youth (n=120)</i>		<i>Non-Referred Youth (n=120)</i>	
	<i>%</i>	<i>n</i>	<i>%</i>	<i>n</i>
Positive Diagnosis <sup>a</sup> ***	96	115	69	83
Positive CBCL <sup>b</sup> ***	66	79	29	35
Positive YSR <sup>c</sup> ***	56	67	17	20
Positive Diagnosis and CBCL <sup>***</sup>	63	76	25	30

Percentages rounded to next whole number. \* $p \leq .05$ ; \*\* $p \leq .01$ ; \*\*\* $p \leq .001$ .

<sup>a</sup> any positive DISC diagnosis

<sup>b</sup> CBCL Total T-score  $\geq 70$

<sup>c</sup> YSR Total T-score  $\geq 70$

**Table 3**  
**Diagnosis and Symptom Comparison in Referred and Non-Referred Youth:**  
**January 1997-December 1997**

<i>Measure of Emotional Disturbance</i>	<i>Referred Youth (n=120)</i>		<i>Non-Referred Youth (n=120)</i>	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Number of DISC Diagnoses *	4.4	3.3	2.4	2.7
Number of DISC Symptoms *	46.6	32.3	30.4	23.0
CBCL Total T+	66.9	12.3	63.1	11.0
CBCL Internal T *	63.6	13.3	55.6	11.4
CBCL External T	67.3	13.0	65.4	10.9
YSR Total T **	64.1	12.0	57.9	12.1
YSR Internal T **	61.8	11.9	55.3	11.8
YSR External T *	64.9	11.7	60.1	12.9

+ $p \leq .10$ , \* $p \leq .05$ , \*\* $p \leq .01$ .

## **Discussion**

Findings from this study suggest that there is a substantial level of need for mental health services among detained youth. Ninety-six percent of referred youth and 69% of incarcerated youth met criteria for a psychiatric disorder. The level of psychopathology in the referred population is greater than the level of reported psychopathology in youth in a state hospital (Atkins et al., 1999), and the level of psychopathology in the detained population is consistent with the higher end of estimates from previous studies (Otto et al., 1992). The low rate of substance abuse in this population was surprising in light of prior studies which demonstrated levels of substance abuse that were substantially higher (Elliot, Huizinga and Menard, 1989; McManus, Alessi, Grapentine, & Bickman, 1994). Consistent with prior studies (Lewis, Shanok, Cohen, Kligfeld, & Frisone, 1980; Kaplan and Busner, 1992; Cohen, et al., 1990; Pumariega, Atkins, Rogers, & Montgomery, 1999), African-American youth were referred for mental health services less often than were Caucasian youth.

## **Clinical Implications**

These findings suggest that many youth in juvenile detention facilities suffer from significant psychiatric impairment and may be identified only when there is a legal requirement to do so. A clinical assessment is merited when a youth has a prior history of mental health involvement. During such an assessment, evaluation of emotional/behavioral problems as well as substance abuse should be conducted. Future research should further explore the clinical needs of youth who are detained in very restrictive settings such as detention facilities. Case mix variation including criminal history should be taken into account when examining the level of mental health service need in this population. Such information is needed to guide service delivery including aftercare services for youth released from secure detention facilities.



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# *Mental Health and Criminal Justice Caseload Overlap in Five Counties*

Steven M. Banks  
John A. Pandiani

## **Introduction**

This paper reports on the preliminary results of a replication/extension of research previously conducted in Vermont (see Pandiani, Banks, Schacht, & Bagdon, 2000; Pandiani, Banks, & Geertsen, 2001; Banks, Pandiani, & Bramley, 2001; Pandiani, Schacht, & Banks, 2001). This earlier research examined treatment outcomes for young people who had received services from community mental health and other child serving agencies. The treatment outcomes that were examined included incarceration (for boys), maternity (for girls), and hospitalization for behavioral health care (for both boys and girls).

The current research focuses on arrest rates for young people who received community mental health services under Medicaid managed care programs in Hillsborough County, Florida, and four surrounding counties in Florida. We examined levels of criminal justice involvement both before and after receipt of children's services. The Florida research is part of a larger evaluation of the managed care program in terms of criminal justice involvement for both children and adults in this region.

The results of this research will provide a valuable complement to the ongoing examination of managed behavioral health care in this region that focuses on service delivery patterns and consumer evaluation of services. In combination with similar research being conducted in Vermont (Pandiani, Banks, & Schacht, 1998a; Banks, Pandiani, & Schacht, in press; Banks, Stone, Pandiani, Cox, & Morchauser, 2000; Pandiani, Banks, Bagdon, & Schacht, 2000; Pandiani, Banks, & Bramley, 2001; Pandiani, Banks, Clements, & Schacht, 2000; Rosenheck, Banks, Pandiani, & Hoff, 2000) and other states, findings will add to our understanding of criminal justice outcomes for recipients of community mental health services. Increasing concern among the general public and public policy makers about juvenile crime and violence make this a very important area of inquiry.

## **Method**

The findings reported here are based entirely on the analysis of data from existing administrative databases using the method of Probabilistic Population Estimation (Banks & Pandiani, 2001; The Bristol Observatory, 2001).

Probabilistic Population Estimation is a statistical method for determining the number of people represented in a data set that does not include a unique person identifier. The estimate is based on a comparison of information on the distribution of dates of birth in the general population with the distribution of dates of birth observed in data sets. In order to probabilistically determine the number of people shared across data sets that do not include a common person identifier, the sizes of three populations are determined from two original data sets, and the results are compared. The number of people in each of the original data sets are the first two populations. The number of people in the data set that is formed by combining the two original data sets becomes the third data set. The number of people who are shared by the two data sets is the difference between the sum of the numbers of people represented in the two original data sets and the number of people represented in the combined data set. This occurs because the sum of the number of people represented in the two original data sets includes a double count of every person who is represented in both data sets. The number of people represented in the combined data set does not include this duplication. The difference between these two numbers is the size of the duplication between the two original data sets, the size of the caseload overlap. Because this measure relies on information in existing data bases, it does not require the commitment of substantial amounts of staff time, and it is possible to evaluate changes in systems of care that have occurred in the past.

Two data sets were used in this analysis: 1) anonymous data sets obtained from the Florida Mental Health Institute in Tampa, Florida, provided basic demographic information on all children and adolescents served during 1995 through 1998, and 2) anonymous data sets obtained from the Florida Department of Law Enforcement provided similar demographic information on all people who were arrested in the five counties under examination during the study period.

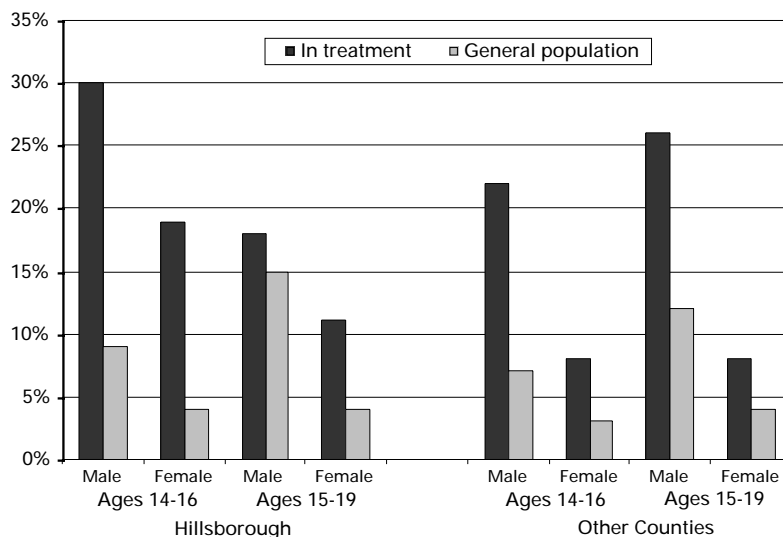
Using this approach, the proportion of young people receiving mental health services during 1995 through 1998 who were also arrested during each year was determined. These annual rates were averaged to provide an overview of rates of criminal justice involvement by mental health service recipients during the period.

In order to provide a measure that focuses explicitly on treatment outcomes, the number of young people who had been arrested during the year before the treatment year was compared to the proportion of young people who were arrested during the year after the treatment year. For this analysis, the number of young people who appear in both the 1996 mental health data set and the 1997 criminal justice data set, for instance, was determined. This is the number of mental health service recipients who were arrested during the year after they were in treatment. Dividing this number by the total number of mental health service recipients provides the arrest rate after treatment. Similar calculations using the 1995 criminal justice data set provide the arrest rate for the year prior to the treatment year.

## Results

The results of this analysis indicate that many young recipients of mental health services were arrested in Hillsborough and nearby counties during 1995 through 1998. As shown in Figure 1, almost one-third (30%) of all 14 to 16 year old boys, and almost one-fifth (18%) of all 17 to 19 year old boys in Hillsborough County were arrested each year, on average. In surrounding counties, the arrest rates varied from more than one-fifth (22%) for 14 to 16 year old boys to more than one-fourth (26%) for 17 to 19 year old boys. Arrest rates for girls were lower, but still quite high. In

Figure 1  
Arrest Rates (4-year Average)



Hillsborough county, 19% of 14 to 16 year old girls and 11% of 17-19 year old girls were arrested each year on average. In the surrounding counties, almost one in ten (8%) of girls in both age groups were arrested each year on average.

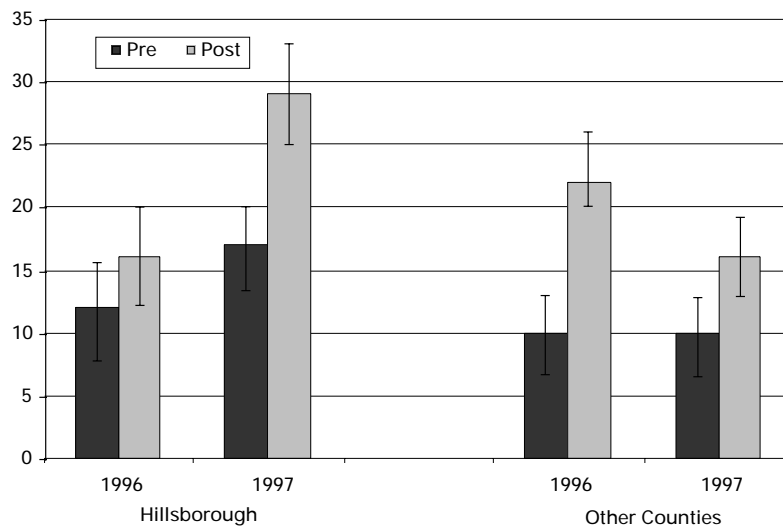
When arrest rates for the year before treatment were compared to arrest rates for the year after treatment for boys, the results were not encouraging. For both groups in both regions, arrest rates during the year after treatment were significantly higher than arrest rates prior to treatment. (See Figure 2, which plots arrests with 95% confidence intervals.)

### Discussion

These results provide a preliminary overview of criminal justice involvement by youthful recipients of mental health services in Hillsborough and surrounding counties during 1995 through 1998. A number of questions, however, remain to be answered. First, and perhaps foremost, is the question of longer term treatment outcomes. How do these arrest rates of service recipients compare to arrest rates for other young people who live in the same regions as they enter adulthood? In Vermont, youthful recipients of mental health services were found to have a much greater likelihood of getting into trouble with the law than other residents, but that the degree of elevated risk decreased as these young people grew older. This was interpreted by program administrators as evidence that the mental health programs were reaching the young people who were most in need of treatment, and that the programs were having a favorable impact on levels of criminal justice involvement.

Levels of criminal justice involvement prior to treatment provide a powerful measure of access to care for one of the groups of people who are most in need of services. From this perspective, programs that are serving more young people with a history of criminal justice involvement may be seen as doing a better job than programs that are not serving these high risk young people. Further research in this area should also investigate the impact of race and ethnicity on access to mental health services and levels of criminal justice involvement for youthful recipients of mental health services.

Figure 2  
Arrest Rates for Boys 14-16  
Pre & Post Service



Levels and types of criminal justice involvement should also be investigated to determine: 1) whether youthful mental health service recipients are arrested for more serious or less serious offences than other young people, 2) if they are more or less likely than other offenders to be convicted and incarcerated after arrest, 3) whether the criminal justice system diverts health service recipients to other more appropriate treatment options, or 4) whether the data support the criminalization hypothesis (which holds that people with mental and emotional disorders are more likely to be engulfed by the criminal justice process).

Finally, there are important advantages to Probabilistic Population Estimation when compared with more traditional methodologies that rely on special purpose data collection. Because this method relies on existing data sources, it avoids the expense of original data collection and supports large scale and long term research designs. Also, Probabilistic Population Estimation can reliably measure outcome variables after young people leave treatment and before they enter treatment. Because the analysis uses only anonymous data sets, the privacy of individuals and the confidentiality of medical records is protected (Pandiani, Banks, & Schacht, 1998b). In addition to criminal justice involvement, this approach is ideally suited to measuring a wide range of treatment outcomes for which comprehensive data sets exist.

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