

**A PILOT STUDY ON THE
MENTAL HEALTH OF
ADOLESCENTS AND YOUTH AT THE
HAWAI`I YOUTH CORRECTIONAL FACILITY**

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Executive Summary

A major concern regarding youths at the Hawai'i Youth Correctional Facility (HYCF) is the occurrence of mental health issues and psychiatric disorders. The purposes of the present investigation were:

- (1) To conduct a retrospective pilot study with the goal of systematically accessing and determining the mental health statistics of youths at the Hawai'i Youth Correctional Facility (HYCF);
- (2) To suggest/recommend prevention and treatment strategies that may more effectively address the needs of "at risk" as well as incarcerated youths; and
- (3) To suggest the direction, scope, and methodology of future expanded studies.

A total of 269 adolescents at HYCF were part of this retrospective study. Records were examined for the period of July 1, 1999 to June 31, 2000. In addition to basic statistical descriptions of the sample (e.g., demographics, family, child development/health, special education, violence, substance use, treatment) that can be found within this document, the following was found regarding mental health.

Of the 269 adolescents, 215 or 79.9% had at least one psychiatric diagnosis. When examining the youths who had a psychiatric evaluation report/assessment ($N = 217$), 215 or

99.1% had at least one psychiatric disorder. Approximately 3 in 4 had a disruptive behavior disorder, and the same ratio was found for any type of substance abuse/dependency. Nearly 2 in 3 had conduct disorder. About 1 in 4 had an affective disorder (i.e., mood, anxiety). When dividing the youths into mutually exclusive mental-health groups, the substance abuse only group was found to be older than the other groups. Adolescents in the conduct disorder only group were more likely to be victims of violence, while youths in the comorbid (at least conduct disorder &/or substance) group were more likely to be perpetrators of violence and directly involved in gangs. In general, the comorbid group, as compared to the other mental-health groups, had relatively higher rates of treatment recommendations involving individual and family psychotherapy, substance abuse, and psychopharmacotherapy. The conduct disorder group, in contrast to the other mental-health groups, was recommended treatments of individual and family psychotherapy at relatively higher rates, while the “other” youths were recommended group and family psychotherapy at a higher rate than the other mental-health groups. As would be expected, the primary treatment recommendation for the substance abuse only group was for substance abuse. Other factors to further explore include gender, which the youths were raised mostly by, employment of family supporter, family history of incarceration, and premature deliveries.

Limitations of the present study included common weaknesses of retrospective investigations (i.e., confinement to available data/variables, subjective coding, infrequent conflicting data). Additional limitations included the relatively small sample sizes of the youth subsets (e.g., ethnic distribution), sheer number of comparisons made, and lack of a normative control group.

Despite these shortcomings, implications and recommendations can be made with regard to the mental health of these adolescents. Emphasis should be placed on the development of a better clinical and scientific understanding of the link between mental health and incarceration (e.g., violence, crime) for the diverse adolescent population at HYCF. In treating adolescents at HYCF, the rate of comorbidity, especially with regard to conduct disorder and substance abuse/dependency must be considered. In addition, however, the presence of affective disorders must also be taken into account. Given that the latter may be under-diagnosed, all adolescents at HYCF may need to be provided a psychiatric evaluation. Additional isolated steps could be taken to benefit incarcerated youths at HYCF.

In a broader context, given the complexity of the relation between mental health and incarceration, a comprehensive model is needed to delineate the multitude of factors that impact mental health of diverse adolescents. A six-phase research endeavor is proposed that would provide for such a comprehensive adolescent-developmental model that would derive prevention, treatment, and maintenance components. These phases would entail: (1) collaboration, (2) literature review, (3) qualitative analysis, (4) quantitative analysis, (5) prevention and intervention, and (6) efficacy analyses.

Introduction

Purposes

The purposes of the present investigation were:

- (1) To conduct a retrospective pilot study with the goal of systematically accessing and determining the mental health statistics of youths at the Hawai'i Youth Correctional Facility (HYCF);
- (2) To suggest/recommend prevention and treatment strategies that may more effectively address the needs of "at risk" as well as incarcerated youths; and
- (3) To suggest the direction, scope, and methodology of future expanded studies.

Significance and Background

Youth violence and incarceration are issues of major importance to our society, and much research has been generated nationally (e.g., Jensen & Howard, 1999). Common antecedent and associated variables to high-risk behaviors include: (1) early age of initiation; (2) low education expectation and poor school achievement; (3) acting out, truancy, antisocial behavior, and conduct disorder; (4) low resistance to peer influences; (5) lack of parental support; and (6) living in a deprived neighborhood (Dryfoos, 1990).

Of increasing concern is the association between youth incarceration and issues of mental health (e.g., diagnosis, prevalence, treatment; e.g., Loeber, Farrington, Stouthamer-Loeber, & van Kammen, 1998). Coccozza (1992) found that of youth incarcerated, 60%-75% have a mental illness and 20 percent are severely impacted. In addition, the prevalence of comorbid psychiatric disorders and incarceration in the adolescent population complicates successful intervention.

Studies in Hawai'i

GENERAL DEMOGRAPHIC FINDINGS

There have been several studies conducted in Hawai'i on the topic of youth crime (e.g., Department of the Attorney General, State of Hawai'i, 1998). Annual studies have found that rates of arrests and incarceration have fluctuated across the years in Hawai'i (e.g., Bradford & Perrone, 2001; Chesney-Lind, Mayeda, Paramore, Okamoto, & Marker, 1999; Department of the Attorney General, State of Hawai'i, 1998) and across the nation (e.g., Chesney-Lind et al., 2000). Growing concern has been noted in the most recent rate of female arrests (Chesney-Lind et al., 2001) as well as the consistently high male-to-female ratio found at HYCF, where boys are more likely to be committed for violent and property offenses, while girls are more likely to be committed for probation violations (Chesney-Lind, Kato, Koo, & Clark, 1997). In addition, males more than females tend to be involved in gangs at some point in their lives (Chesney-Lind et al., 2000).

A relatively stable finding is the over-representation of incarcerated Hawaiians/part-Hawaiians (52.6%), Samoans (5.9%), and African Americans (1.8%), and under-representation on the part of Caucasians (7.0%), Filipinos, and East Asians (Chinese, Japanese, Korean; based on 1993-1994; Kassebaum et al., 1995a, b). Similar results were found for 1999 HYCF records by Chesney-Lind et al. (2000) for Hawaiians/part-Hawaiians, Samoans, and African Americans. Further, 1995-1999 recidivism proportions generally mirrored the differences in incarceration figures (Bradford & Perrone, 2001): Hawaiians/part-Hawaiians = 49.6%; mixed or other ethnicity = 22.9%, Caucasians = 9.4%, Filipino = 7.1%, Pacific Islanders (non-Hawaiian) = 5.8%, Asians = 2.1%, and African Americans = 1.2%.

An important finding has been the trend of decreased over- and under-representation when back-tracking from HYCF incarceration to detention, the courts, and arrests (Kassebaum et al., 1995a, b). For example, for Hawaiians/part-Hawaiians, the following decreasing rates were found: HYCF = 52.6%, detention = 43.3%, courts = 36.2%, and arrests = 35.3%. Likewise, for mixed/other ethnicity: HYCF = 23.4%, detention = 21.1%, courts = 15.3%, and arrests = 13.9%. However, increasing rates were found in back-tracking from HYCF to arrests for Filipinos

(8.8%, 8.6%, 15.9%, 14.9%), East Asians (0.6%, 5.1%, 6.2%, and 8.0%), and Caucasians (7.0%, 15.0%, 19.5%, and 20.1%).

On the basis of results from focus groups, Kassebaum et al. (1995a, b) derived several possible factors that may contribute to the ethnic differences: cultural isolation/conflict, poor anger management, family-related variables (e.g., domestic abuse), negative peer influence (e.g., gangs), community-related variables (e.g., churches, schools), ineffective programs, financial resources, and legal representation. Additional considerations include educational expectations and role models (Chesney-Lind et al., 1999).

PROTECTIVE AND RISK FACTORS

Perhaps the most prominent longitudinal study conducted in Hawai'i on protective and risk factors is the Kaua'i Longitudinal Study (e.g., Werner, 1987). This landmark investigation that began in the 1950s prospectively tracked more than 500 multi-ethnic children on the island of Kaua'i. Several variables were found to be the best predictors of juvenile delinquency for the 1955 birth cohort: "medical factors" (e.g., perinatal stress, having congenital defects, acquiring a physical disability), social variables (e.g., low socioeconomic status, family instability at an early age), and behavioral problems (e.g., infant activity level, placement in a class for learning disabilities, long-standing mental health treatment) (Werner, 1987). A presence of at least four risk factors by the age of two increased the likelihood of a given youth having a juvenile delinquency record. Other attributes were also deemed to be risk factors (e.g., last of many siblings).

Other studies have demonstrated similar protective-risk variables: being a victim of abuse/violence, sibling influence, familial conflict/risk (e.g., legal problems/incarceration of father), peer influence, and special education (75% boys, 44% girls at HYCF) (Chesney-Lind, Koo, Kato, & Clark, 1998; Chesney-Lind et al., 2001).

MENTAL HEALTH.

Although there have been many studies on adolescent mental health, very few studies have examined youth maladjustment/crime and mental health concurrently in Hawai'i. A major exception to this trend was the Kaua'i Longitudinal Study (e.g., Werner, 1987). Approximately one in five children was considered in need of mental health services, and by age 18, more than

half of the girls and one in six boys who had a record of juvenile delinquency had “serious mental health problems” that required inpatient or outpatient treatment.

More recently, Chesney-Lind and her associates have found significant gender differences regarding mental health factors: suicide attempts (girls = 45%, boys = 7%, Chesney-Lind et al., 1997; girls = 54%, boys = 25%, Chesney-Lind et al., 2000); physical abuse (girls = 17%, boys = 24%, Chesney-Lind et al., 1997), reports of sexual abuse (girls = 38%, boys = 14%, Chesney-Lind et al., 1997; girls = 40%, boys = 5%, Chesney-Lind et al., 2000); and reports of being subjected to physical violence (girls = 27%, boys = 16%, Chesney-Lind et al., 2000). In addition, girls and boys confined at HYCF experienced an array of serious mental health problems and psychological distress (girls = 60%, boys = 53%, Chesney-Lind et al., 2000). Males exhibited anger management difficulties and tended to act out violently, while girls suffered from more depressive symptoms. The increased risk of females for depression and suicide was confirmed by Bradford and Perrone (2001) in a study of youth released from HYCF (1995-1999).

FURTHER RESEARCH NEEDED

These previous studies have provided the impetus to examine, on a more molecular level, the important association between mental health and incarceration. Kassebaum et al. (1995a, b), for example, suggested emphasizing the importance of obtaining information on various family variables, criminal histories of family members, substance abuse histories, and treatment for psychiatric and emotional problems. Thus, the present study involved a retrospective investigation of the records of the youths at HYCF during a year’s span, with emphasis on examining formal psychiatric diagnoses and other mental health factors (e.g., history of psychiatric hospitalization).

Method

Participants

Participants were adolescents from the Hawai‘i Youth Correctional Facility (HYCF). HYCF is located on the Windward side of the island of O‘ahu and is the only State of Hawai‘i

facility for incarcerated youths. The present study included the adolescents who were at the institution from July 1, 1999 to June 31, 2000.

Information was collected for a total of 271 participants. Of the 271 youth, two (1 male, 1 female) were omitted from the final analyses due to one not having any current offense information and the other being the only one having only a current status offense. The male youth excluded from the analyses was of Samoan ancestry and the female adolescent was of mixed non-Hawaiian ancestry (Caucasian & Korean).

Of the 269 participants, 233 (86.6%) were admitted to HYCF once during the year of the study, while 36 youths were repeat offenders. Thirty participants (11.2%) returned to HYCF twice within the year of this study (July 1, 1999 to June 31, 2000), and 6 (2.2%) returned to the facility three times. Additional demographic information describing the sample can be found in the Results section.

Measures

All data were extracted from the medical, mental health, and legal records. When more than one psychiatric evaluation was available, information from the most recent document was utilized. When no psychiatric report was contained in the folders, the “Mental Health Risk Assessment” document was used, if available.

Appendix A contains a detailed description of variables that required further elaboration.

Procedures

Medical and mental health records were independently reviewed by at least two researchers. In addition, all data entered were verified by an independent researcher. Information from the legal records were gathered by one person due to the sensitivity of the information. All data collected were kept confidential.

Institutional Review Board (IRB) approval for the present study was granted by both the Committee on Human Studies (CHS) of the University of Hawai‘i at Mānoa and the Department of Health, State of Hawai‘i.

Statistical Analyses

Four sets of statistical analyses were performed on the data: demographic, crime offense, legal information, and mental health. When frequency information was involved and group differences were ascertained, chi square (χ^2) analyses were conducted. For analyses that entail cell sizes five or less should be interpreted with some caution. Analyses of variance (ANOVAs) followed by Newman-Keuls subsequent *t*-tests were performed when non-categorical (e.g., continuous) data were involved. The Newman-Keuls takes into account the number of pairwise group comparisons that are made given that the greater the number of contrasts, the higher the probability of obtaining “significant” differences just by chance.

Results

The results are organized in the following manner:

- (1) sample description and demographic information;
- (2) current crime commitment offense (by variables related to demographics, family, child development/health, special education, violence, substance use, mental health, and treatment);
- (3) legal data; and
- (4) mental health (by variables related to demographics, family, child development/health, special education, violence, substance use, other mental health factors, and treatment).

In interpreting the findings, emphasis must be placed on the fact that “no/no indication” is a dual code for either “no” (e.g., no accidental injuries) or “no indication” (i.e., records did not indicate one way or another whether there was an accidental injury in the past). These two codes were combined into one because in most cases, “no indication” was the more frequent entry given the retrospective nature of the present study. Therefore, “at least” is perhaps a more accurate term in referring to the “yes”/affirmative response where the complement is “no/no indication.”

Sample Description and Demographics

CURRENT COMMITMENT OFFENSE

Table 1 (see Appendix B) presents the distribution of types of current commitment offenses ($N = 269$). The most frequent categories were property (41.3%) and probation (34.6%)

offenses, while personal (27.5%) and “other” (23.1%) had intermediary values, and drug (3.0%) and status (2.2%) offenses entailed the lowest probability. When categorizing the offenses based on whether the youth had only one type of offense, there was a significant difference among the frequencies. Most of the youths had two or more different types of offenses (27.5%), followed by probation only (27.1%) and property only (22.7%). There were no participants with only drug offenses (and there was only one youth with only a status offense; this youth was not included in these analyses).

ETHNICITY

In examining ethnicity (Table 2; $N = 268$), a comparable number of youth were at least part-Caucasian ($N = 168$; 62.7%), part-Asian ($N = 154$; 57.5%), and part-Pacific Islander ($N = 164$; 61.2%). Of the five major ethnic groups in Hawai‘i, there was a higher percentage (55.2%) of Hawaiians/part-Hawaiians than expected based on Hawai‘i’s population figures (see Table 2), while the proportions of Caucasians (7.5%), Filipinos (6.7%), and Japanese (0.4%) were less than expected. Youth with mixed (non-Hawaiian) ancestry generally appeared to be represented proportionally to the Hawai‘i population at large. Based on the ethnic distribution, further analyses were based on the following groups: Caucasian ($N = 20$), Filipino ($N = 18$), Hawaiian/part-Hawaiian ($N = 148$), mixed non-Hawaiian ($N = 63$), and “other” non-mixed ($N = 19$). A chi square analysis of these five frequencies indicated a significant difference ($\chi^2 [4, N = 268] = 234.95, p < .0001$) among these groups.

OTHER DEMOGRAPHIC VARIABLES

There was a significant difference in the proportion of males (84.0%) to females (16.0%)—resulting in an approximately 5-to-1 ratio. A significantly greater number of youths were born in the State of Hawai‘i ($N = 186$; 69.1%), followed by the continental U.S. and international countries. The overall average age of the youths was 16.8 years (based on the date of first admission within the study period of July 1, 1999 to June 31, 2000). At least 130 youths’ prior residence was O‘ahu, followed by Kaua‘i ($N = 42$), island of Hawai‘i (Big Island; $N = 28$), Maui ($N = 26$), and Moloka‘i ($N = 1$). The mean number of admissions during the study period was 1.16.

FAMILY

Based on birth order, 14.9% were the only child, 24.6% were the first born (out of more than one child), 27.6% were between the first and last born, and 32.8% were the last born. The majority of adolescents were raised mostly by their biological mothers ($N = 176$) followed by their biological fathers ($N = 89$). The family status immediately prior to entry into HYCF indicated that 107 youths were from single-parent homes, 47 were in “blended” families, and 38 lived with relative(s). Only 25 adolescents were with their intact biological parents. Difficulty was noted in obtaining and categorizing employment data of the primary family supporter. At least 16 youths’ primary family supporter was unemployed. At least 27 (10.0%) of the adolescents were parents themselves. This did not include pregnant girls. Ninety-nine (36.8%) of the adolescents’ immediate or extended family had a history of formally diagnosed psychiatric disorders and 51 (19.0%) of the youths’ immediate or extended family had a history of incarceration.

CHILD DEVELOPMENT/HEALTH

The mean birth weight was 5.5 pounds (or 87.9 ounces). Twenty-four (8.9%) reported prenatal complications, 16 (6.0%) indicated perinatal/delivery complications, and 8 (3.0%) mentioned a premature delivery. Regarding perinatal status, 116 carried their father’s name, 31 carried their mother’s name, and 38 were born out of wedlock. The medical history reflected 119 (44.2%) with accidental injuries, 30 (11.2%) with loss of consciousness, 50 (18.6%) with significant past illness, and 36 (13.4%) with a surgical condition or operation.

SPECIAL EDUCATION

Based on the psychiatric evaluation reports, at least 53 (19.7%) were formally in special education. This may be an under-estimation, however, given the limited systematic access to the special education records.

VIOLENCE

In terms of violence, 137 (50.9%) were victims, 113 (42.0%) were perpetrators, 52 (19.3%) had violence in their environment (e.g., family, friends, others), and 102 (37.9%) records indicated violence that was unspecified (e.g., unspecified victim, perpetrator, or type of violence). A total of at least 205 (76.2%) of the youths were somehow associated with violence.

In reviewing the records, at least 44 (16.4%) were directly involved in gangs (as opposed to just knew someone in a gang).

SUBSTANCE USE

For the data that were available, 259 (96.3%; all but 10 youths) had a history of substance use. The most commonly used substance was marijuana (90.7%), followed by alcohol (86.3%) and cigarettes (71.4%). Over half the youths used methamphetamine (53.9%). The least-used substances were paints/glue (8.9%), LSD (15.6%), mushrooms (18.6%), and cocaine (23.8%). The earliest average start of substance use was with cigarettes (11.9 years of age); the latest use of substances involved methamphetamine (14.1 years of age).

MENTAL HEALTH

There was a significant difference among the distribution of psychiatric (mental health) diagnoses ($\chi^2 [5, N = 269] = 350.38, p < .0001$): conduct disorder only = 12 (4.5%), substance abuse/dependency only = 24 (8.9%), comorbidity with at least conduct disorder and/or substance abuse/dependency = 154 (57.2%), all other diagnoses = 25 (9.3%), no diagnosis = 2 (0.7%), and no psychiatric evaluation = 52 (19.3%). Therefore, 190 youths (70.6% of the 269 total; 87.6% of 217 who had a psychiatric evaluation) were diagnosed with at least conduct disorder or substance abuse/dependency. Sixty-five (24.2%) had a history of psychiatric hospitalization, 190 (70.6%) had a history of school/clinic services (e.g., school counseling), and 116 (43.1%) had a history of psychotropic medications. Regarding suicide, 14 (5.2%) were deemed suicidal, 48 (17.8%) had a history of suicidal ideation, and 53 (19.7%) had previously attempted suicide at least once. Twenty (7.4%) were deemed homicidal/violent and 2 (0.7%) were psychotic.

TREATMENT

The large majority of youths—namely 230 (85.5%)—were recommended for treatment. The most frequently recommended treatment was for substance abuse ($N = 166, 61.7%$) followed by treatments of individual psychotherapy ($N = 137, 50.9%$), psychopharmacotherapy ($N = 81, 30.1%$), family psychotherapy ($N = 78, 29.0%$), anger management ($N = 65, 24.2%$), group psychotherapy ($N = 25, 9.3%$), and occupational rehabilitation ($N = 5, 1.9%$). For the data available, the large majority of youths were discharged to their parents/home ($N = 190, 91.8%$) and court discharged ($N = 188, 90.8%$).

Current Crime Commitment Offense

The different types of current crime commitment offenses were categorized into five groups: (1) personal only, (2) probation only, (3) property only, (4) “other” only, and (5) two or more of six different types of offenses (i.e., personal, probation, property, “other,” status, and drugs; see Appendix A for definitions). There was only one youth with “status only”; the data from this individual were not included in further analyses. No adolescents were in the “drug only” category. The five remaining groups were contrasted based on a number of variables (e.g., demographics, family, child development/health, special education, violence, substance use, mental health, and treatment). Tables 3-20 detail these findings; the following is a narrative of the trends and significant results.

FAMILY

Significant differences among the offense groups were found for residence prior to HYCF (Table 6). Among the offense groups, the largest percentage from O‘ahu were in the probation only group. For the island of Hawai‘i (Big Island), relatively higher proportions were found for personal only, probation only, and two or more different types of offenses. For Kaua‘i and Maui, a relatively lower percentage was obtained for probation only. There was a trend ($p = .0781$; Table 7) for adolescents raised mostly by their biological fathers (vs. not raised mostly by their biological fathers) to have a higher rate of two or more different types of offenses (i.e., 46.0%). Another finding that approached statistical significance ($p = .0643$; Table 7) suggested that there were higher proportions of youths in the probation only, “other” only, and “two or more” groups raised mostly by relatives. There was also a trend ($p = .0640$; Table 9) of higher rates of a family history of incarceration in the property only, probation only, and personal only groups, as compared to adolescents in the “other” only and “two or more” groups.

CHILD DEVELOPMENT/HEALTH

Youths with “two or more” types of offenses had a higher rate of accidental injuries (55.4%) than adolescents in, for example, the personal only group (22.9%).

VIOLENCE

Approaching statistical significance ($p = .0644$; Table 14) was a higher rate of youths in the personal only group to have a higher rate of being victims of violence (68.6%) as compared to other offense groups (e.g., property only = 39.3%). In addition, a significant difference was

found (Table 14) among the rates of the adolescents being associated with any violence (e.g., 25 out of 26 youths in the “other” only = 96.2% vs. property only = 62.3%).

SUBSTANCE USE

For the age of substance use, the “other” only group started using marijuana at an earlier age (11.1 years old) than the personal only and probation only groups (12.6 years old for both).

TREATMENT

Adolescents in the “two or more” types of offense and probation only groups tended to have higher rates of treatments recommended (93.2%, 89.0%, respectively; Table 19) than youths in the property only group (75.4%). A trend ($p = .0506$; Table 19) existed whereby adolescents in the “two or more” group had a higher rate of substance abuse treatment recommended (73.0%) as compared to, for example, youths in the personal only group (45.7%).

Legal Variables

Tables 20 and 21 present the findings on legal variables by the five different offense groups. There were no significant differences among the offense groups in the type of commitment duration (i.e., majority, minority, other), disposition, and legal status.

Mental Health

PREVALENCE OF SPECIFIC DIAGNOSES

The psychiatric prevalence data were examined four ways: (1) prevalence of each psychiatric disorder regardless of other comorbid diagnoses and with the total of 269 as the sample size (i.e., denominator); (2) prevalence of each psychiatric disorder regardless of other comorbid diagnoses and with the sample size based on the number of youths with a psychiatric evaluation report/assessment ($N = 217$); (3) prevalence of mutually exclusive groups including the youths with no diagnosis and with no psychiatric evaluation report/assessment; and (4) prevalence of mutually exclusive groups excluding adolescents with no diagnosis and with no psychiatric evaluations.

Using the first method (Table 22), 79.9% of the 269 youths had at least one diagnosis, 58.4% had a disruptive behavior disorder, 50.2% had conduct disorder, 19.0% had an affective disorder, 61.7% had a substance abuse/dependency diagnosis, 14.1% had “other” disorders (e.g.,

adjustment disorders), 0.7% had no diagnosis, and 19.3% had no psychiatric evaluation report/assessment.

The rates increased substantially when using the second method—that is, examining only those who received a psychiatric evaluation ($N = 217$; Table 22): at least one diagnosis = 99.1%; disruptive behavior disorder = 72.4%; conduct disorder = 62.2%; affective disorder = 23.5%; substance abuse/dependency = 76.5%; “other” disorders = 17.5%; and no diagnosis = 0.9%.

After examining the profiles of different diagnoses, the youths were defined based on six mutually exclusive mental-health groups: conduct disorder only ($N = 12$); substance abuse/dependency only ($N = 24$); comorbidity with at least conduct disorder and/or substance abuse ($N = 154$); all other diagnoses ($N = 25$); no diagnosis ($N = 2$), and no psychiatric evaluation ($N = 52$). Analyses for which there were complete data (i.e., age, number of admissions, gender, place of birth, and ethnicity; Tables 23-24) did not reveal significant differences among the six mental-health groups.

The final method of grouping the youths based on mental health involved omitting from the analyses the 2 participants who did not have a psychiatric diagnosis and the 52 adolescents who did not have a psychiatric evaluation report/assessment (resulting in $N = 215$). The following details the statistically significant differences found among the remaining four mental-health groups: (1) conduct disorder only, (2) substance abuse only, (3) comorbidity with at least conduct disorder and/or substance abuse, and (4) all other diagnoses.

DEMOGRAPHICS

The substance abuse only group was significantly older than the other three groups based on the first admissions (during the study period; Table 25). Although females tended to have a higher percentage in the comorbid and “other” mental-health groups, this relationship was not statistically significant.

FAMILY

There was a trend ($p = .0509$; Table 29) for higher rates of the youths in the conduct disorder only (75.0%) and “other” (80.0%) groups to be raised mostly by their fathers. Although there was a statistically significant finding involving temporary placement, the rare occurrence of this event precluded any meaningful interpretation. A similar statement can be made for the employment data. A trend ($p = .0516$; Table 31) was noted in that youths in the “other”

diagnosis group had at least twice the rate of a family history of incarceration (44.0%) as compared to the remaining three mental-health groups.

CHILD DEVELOPMENT/HEALTH

Interestingly, great variability was noted for whether the youths carried their mother's name (e.g., conduct disorder only = 33.3%; substance abuse only = 0.0%; Table 34). The "other" and conduct disorder only groups had higher rates of premature deliveries (12.0%, 8.3%, respectively; Table 34) than the remaining groups (0.0% for substance only, 2.0% for comorbid).

VIOLENCE

The violence data (Table 36) indicated that the youths in the conduct disorder only group had a higher rate of being victims of violence (75.0%), followed by the comorbid (61.7%), "other" (44.0%), and substance only (33.3%) groups. When examining the perpetrators of violence (Table 36), however, adolescents of the comorbid group (55.8%) had the highest rate followed by the conduct disorder only (41.7%), "other" (40.0%), and substance only (20.8%) groups. A trend ($p = .0935$; Table 37) was noted with youths in the comorbid group having the highest rate of direct gang involvement (24.0%), followed by the conduct disorder only (16.7%), "other" (12.0%), and substance abuse only (4.2%) groups.

SUBSTANCE USE

The "other" mental-health group started using methamphetamine at the earliest age (10.3 years old) as compared to the remaining three groups. However, there were only three adolescents in the "other" group. Not surprisingly, there were several significant interaction effects between the mental-health groups and substance use (Table 39). In general, the substance abuse only and the comorbid groups had higher rates than the remaining two mental-health groups in using alcohol, marijuana, methamphetamine, cocaine, and mushrooms.

OTHER MENTAL HEALTH VARIABLES

The use of psychotropic medications differed significantly among the four mental-health groups (Table 40), with the comorbid group (58.4%) having the highest rate followed by the conduct only (41.7%), "other" (32.0%), and substance only groups (20.8%). Approaching significance ($p = .0714$; Table 40) was slightly higher rates of homicidal/violent tendencies on the part of the conduct disorder only (25.0%) and comorbid (10.4%) groups.

TREATMENT

Three significant findings ($p < .05$) and two trends ($p < .10$) were noted in terms of treatment. In general, the comorbid group had relatively higher rates of treatment

recommendations involving individual and family psychotherapy, substance abuse, and psychopharmacotherapy. The conduct disorder group was recommended treatments of individual and family psychotherapy at relatively higher rates, while the “other” youths were recommended group and family psychotherapy. As would be expected, the primary treatment recommendation for the substance abuse only group was for substance abuse.

Discussion and Recommendations

Summary of Findings

A total of 271 youths’ records were examined. One participant was not included in the analyses due to having no current commitment offense and another was not included because this adolescent was the only one with just a status offense. There remained a total of 269 youths in the present study. For a portion of the variables, “no/no indication” required cautious interpretation because of the multiple meanings of this code. This must be considered in the interpretation of the applicable results.

DESCRIPTION AND DEMOGRAPHICS

Replicating past studies, Hawaiians/part-Hawaiians were over-represented at 55.2%. Caucasians (7.5%), Filipinos (6.7%), and Japanese (0.4%) were under-represented. Males (84.0%) outnumbered females (16.0%) on an approximately 5-to-1 ratio. The majority of the youths (69.1%) were from the State of Hawai‘i—mainly from the island of O‘ahu. The youths were raised mostly by their biological mothers and at least 2 in 5 were from single-parent homes; only 25 adolescents were with their intact biological parents. At least 1 in 10 of the adolescents were parents themselves. More than a third of the youths’ immediate or extended family had a history of formally diagnosed psychiatric disorders and approximately 1 in 5 of the youths’ immediate or extended family had a history of incarceration. At least 1 in 7 were born out of wedlock. Approximately 1 in 5 were formally in special education, although this ratio may be an underestimate, given that this figure was based solely on the psychiatric evaluation report; direct access to the educational records was limited. At least 3 in 4 were associated with violence (self, others) and at least 1 in 6 were directly involved in gangs. Nearly all of the youths had a history of substance use, with marijuana being the most frequently used and half of the youths using

methamphetamine, but at a later age than the other substances. Approximately 7 in 8 had a psychiatric diagnosis of either conduct disorder or substance abuse/dependency (with or without other disorders). One in 4 had a history of psychiatric hospitalization, 7 in 10 had a history of school/clinic services (e.g., school counseling), and 1 in 5 had a previous suicide attempt. Approximately 1 in 14 was homicidal/violent. At least 6 in 7 were recommended for treatment, with the most frequent intervention being for substance abuse. Discharges occurred mainly by the courts to the parents/home.

CURRENT CRIME COMMITMENT OFFENSE

The most prevalent types of offenses involved property and probation. There was a relatively higher percentage of youths in the probation only group from O‘ahu than the other offense groups, whereas this was less the case for Kaua‘i and Maui. Youths with “two or more” types of offenses had a higher rate of accidental injuries and treatments recommended, while the “other” offense group had higher rates of being associated with violence and using marijuana at an earlier age.

MENTAL HEALTH

Fifty-two youths did not have a psychiatric evaluation report/assessment in their records. When examining the youths who had a psychiatric evaluation report/assessment, all but two had at least one psychiatric diagnosis (215 of 217; 99.1%). Approximately 3 in 4 had a disruptive behavior disorder, and the same ratio was found for any type of substance abuse/dependency. Nearly 2 in 3 had conduct disorder. About 1 in 4 had an affective disorder (i.e., mood, anxiety). When dividing the youths into mutually exclusive mental-health groups, the substance abuse only group was found to be older than the other groups. Adolescents in the conduct disorder only group were more likely to be victims of violence, while youths in the comorbid (at least conduct disorder &/or substance) group were more likely to be perpetrators of violence and directly involved in gangs. Other factors to further explore include gender, who the youths were raised mostly by, employment of family supporter, family history of incarceration, and premature deliveries. In general, the comorbid group had relatively higher rates of treatment recommendations involving individual and family psychotherapy, substance abuse, and psychopharmacotherapy. The conduct disorder group was recommended treatments of individual and family psychotherapy at relatively higher rates, while the “other” youths were

recommended group and family psychotherapy. The substance abuse only group was mainly recommended for substance abuse treatment.

Limitations

The present study was a preliminary retrospective investigation to begin to ascertain the mental-health prevalence rates and protective-risk factors concerning adolescents at HYCF. The intent was not to draw definitive conclusions about all of the variables that were examined, but rather, to begin the groundwork to discuss relevant clinical implications and to propose future applied prospective research that would lend themselves to greater scientific rigor—and greater definitive conclusions.

In this context, the majority of the limitations of the present study were due to the nature of retrospective investigations. First, not all of the relevant protective and risk factors may have been documented in the youths' records—or at least not documented consistently. Second, difficulty in coding relatively subjective record content precluded the collection of some of the data (e.g., “significant events”). Third, the “no/no indication” code was problematic in that this represented the possibility of three responses: (1) “no” (the records indicated “no”), (2) “no indication” (the records did not indicate one way or another), and perhaps (3) “yes” (the records did not indicate one way or another, but if directly sought, the response would be “yes”). Given the nature of retrospective research, caution was noted (e.g., used “at least” to reflect the possibility of positive, present, or “yes” indicators). And fourth, occasionally, inconsistent information (e.g., substance use) across two different sources of information (e.g., past historical records vs. present clinical interview with the youth) resulted in the derivation of operational definitions such as taking the most recent data or entering the values as missing/incomplete.

Additional limitations included: (1) relatively small sub-groups, (2) categorization of variables, (3) total number of comparisons, and (4) lack of a control/normative group. Due to the defined scope of the study and resources available, only one year of retrospective data were collected and analyzed ($N = 269$). Grouping the youths (e.g., current commitment offense, psychiatric diagnoses, etc.) resulted in relatively small subsets of adolescents (e.g., $N = 18$ for Filipinos). This decreased the power of the statistical analyses.

Categorization of the levels/values of the variables was based on maintaining a reasonable number of participants per subgroup as well as other criteria. Finer analyses are

needed on the existing data to determine if the most effective techniques were used in defining the levels/values of the variables (e.g., where to categorize sex assaults).

The more contrasts performed, the more likely “significant” results will be the artifact of conducting too many comparisons (i.e., Type I errors). Aside from the Newman-Keuls correction for subsequent *t*-tests, no other adjustments were made to the findings in light of the exploratory nature of the present investigation.

Finally, the lack of a control or comparison normative cohort group precluded relevant comparisons between the HYCF and such a normative group. This would have allowed for more definitive statements about protective and risk factors associated with youth at HYCF.

Implications and Recommendations

Despite the limitations of the present study, several implications and recommendations can be drawn.

TYPE OF OFFENSE

The most common offenses were property and probation offenses, and to some extent, multiple offenses (falling into different offense categories). Further analyses of the primary offenses are required to dissect the specific types of offenses within each offense category to determine whether there are patterns that would suggest effective prevention or intervention strategies.

DEMOGRAPHIC DIFFERENCES

The data collected on gender were complete and could be considered reliable and valid. The information gathered on ethnicity was also complete in the sense that all but one youth’s ethnic ancestry was collected. Although the reliability and validity of the ethnic data may not be as high as that compared to gender—if not just because of the complexity of ethnicity (e.g., mixed ancestry)—the replication of previous findings (e.g., over-representation of Hawaiians/part-Hawaiians) suggested that the data were at least moderately reliable and valid. Under these circumstances, emphasis should be placed on investigating the core reasons for some proportional differences in prevalence-rate discrepancies. This may involve “back tracking” the history of the youths (e.g., family court, schools, home, communities) to determine if there is point where these differences no longer exist and if a genesis of these disparities begins to

surface. Findings along this course may lead to unintentional biases in assessment or referrals, which may in turn lead to prevention and intervention strategies that help youths of all demographic backgrounds. Previous research by Kassebaum et al. (1995a, b) suggested that this would be a fruitful endeavor given the decrease in differences in back-tracking from HYCF incarceration to arrests. Such an approach must also consider other factors including socioeconomics, family, community, and so on.

FAMILY, CHILD DEVELOPMENT/HEALTH, SPECIAL EDUCATION

The pattern that evolved suggested that family and social variables may be associated with the status of the youths (e.g., single-parent home, family history of psychiatric disorders, family history of incarceration). However, future studies must utilize more valid and comprehensive assessments given the nature of the family, child development/health, and special education data in the present study. Consideration should be given to qualitative, in-depth interviews to assure that important variables are not omitted from a quantitative structured survey. In addition, access to educational records (e.g., grades, standardized test scores, Individualized Education Plans [IEPs]) is essential in a thorough evaluation of the factors influencing these adolescents.

VIOLENCE

A major correlate was violence, with the majority of youths somehow associated with a violent environment. In addition to more molecular analyses on the types of violence acts, victimization, and so on, further research is needed on the cause-effect relationship between victimization or exposure to violence with the diverse youth populations in Hawai'i. This type of investigation should include detailed, time-specific investigations of family violence and gang involvement (both direct and indirect—e.g., peers).

SUBSTANCE USE

Along with violence, substance use, abuse, and dependency were extremely prevalent among the youths. Once again, “back-tracking” the history of the adolescents may assist in the development of a cause-effect model, including how violence/crime and substance use are inter-related. This information is needed to identify appropriate prevention strategies and target interventions.

MENTAL HEALTH

The overall findings indicated that mental health disorders were prevalent for nearly all youths who had a psychiatric evaluation—with conduct disorder and substance abuse/dependency being the most prominent concerns. However, affective disorders were also present in one-fourth of the population and the comorbidity rates were excessively high. Emphasis should be placed on the development of a better clinical and scientific understanding of the link between mental health and incarceration (e.g., violence, crime) for the diverse adolescent population at HYCF, which may necessitate the evaluation of all adolescents who enter HYCF (i.e., in reference to the 52 youths who did not have an evaluation/assessment). In addition, given the complexity of the relation between mental health and incarceration, a longitudinal approach is needed that incorporates prevention (pre-HYCF), treatment (HYCF), and maintenance (post-HYCF).

TREATMENT

Although treatment recommendations were examined for the records that indicated such information, more systematic studies are necessary to determine the efficacy of existing treatments as well as to implement and evaluate traditionally effective and innovative programs that may be more appropriate for the diverse population at HYCF. Such an efficacy approach should consider a developmental and inter-disciplinary viewpoint (e.g., that considers socioeconomic, social, psychological, and community-based factors).

Future Research

As deduced from above, only a limited amount of definitive information can be gleaned from retrospective data, especially when the questioned posed are so all-encompassing. The present study, along with the previous investigations on the same topic, should be considered the foundation of which to build upon. A series of systematic research investigations are necessary to answer the pressing questions surrounding the youths at the HYCF:

- (a) *Prevention* - What are the core antecedent (protective and risk) factors that put at risk some youths to end up at HYCF and others to avoid HYCF? Can we derive and implement techniques based on these protective and risk factors?

(b) *Treatment/intervention* - What are the effective treatments that can be provided to the youths while at HYCF that will assist them in their daily functioning at HYCF and to their adaptation upon leaving HYCF? How can these treatments best be implemented and the outcomes monitored?

(c) *Longitudinal maintenance* - Upon leaving HYCF, what are the most effective transitional programs that will assist the adolescents to adapt to their new environments? How can these interventions best be facilitated/implemented and the outcomes monitored?

A considerable effort is needed to answer these questions more fully. Ultimately, a comprehensive, longitudinal model should be derived. This will entail at least four main components: (1) different stakeholders (e.g., both “at/high risk” and non-at-risk youths, parents/care givers, peers, schools, community); (2) adolescent developmental approach (i.e., longitudinal from pre-HYCF, during HYCF, post HYCF); (3) qualitative to quantitative progression; and (4) assessment/evaluation to prevention/intervention. Six phases have been derived to build such a comprehensive model that addresses all four components:

(a) *Phase 1: Collaboration* - Several stakeholders are involved with the youths prior to entering, during their stay at, and after they leave HYCF. A coordinated effort is needed to mobilize these entities into taking on an applied/practical and scientific/empirical approach.

(b) *Phase 2: Literature Review* - A comprehensive literature review, of both local and national initiatives related to youth incarceration, is needed as a starting point on possible critical variables to consider. This should be tempered, however, with the knowledge that Hawai‘i’s adolescents compose a diverse population. Theories that are applicable to other parts of the nation may not apply here in Hawai‘i.

(c) *Phase 3: Qualitative Approach* - Given the general lack of research on Hawai‘i’s incarcerated youths, and given the diversity among Hawai‘i adolescents, a more qualitative approach (e.g., in-depth interviews, focus groups) may be warranted at first. The goal of such an approach would include extrapolating important variables that would not otherwise have

surfaced with a national literature review. In addition, such an approach would be more responsive to gearing other phases of research to be more culturally sensitive and appropriate in participant recruitment, interview techniques, survey questions, etc. Participants to consider include youth (both “at/high risk” and non-at-risk), families, peers, agencies (e.g., schools), and communities. Participants should include not only those at HYCF, but youths “at risk” for placement at HYCF and those who have been discharged from HYCF. An important point in this context is the need to have a control/normative group to compare the findings between the “at/high-risk” youths versus the control group—in determining protective-risk factors and deriving a comprehensive causal model of juvenile delinquency. Additionally, information should be collected longitudinally (i.e., tracking and re-interviewing the participants across a given time period—e.g., every six months).

(d) *Phase 4: Quantitative Approach* - While recognizing the unique attributes of each youth and his/her individual circumstances, patterns of protective and risk factors will likely emerge from the literature review and qualitative analyses (e.g., socioeconomics, social support, stressful life events, violence, substance use, mental health). A preliminary comprehensive developmental model could be derived in this phase, and should include different variations of the model as a function of, for example, subtypes of “at-risk” youths. Quantitative instruments could be constructed (if they do not already exist) based on the constructs included in the model.

(e) *Phase 5: Prevention & Intervention* - Prevention and intervention programs, including experimentally controlled ones, would be developed based on modifications/confirmation of the developmental model. The programs (e.g., educational curriculum/instruction for prevention) would be implemented cross sectionally and longitudinally (e.g., educational prevention program for youths “at risk” for being at HYCF, adolescents already at HYCF, and young adults who were placed at HYCF—across a period of time).

(f) *Phase 6: Efficacy Analyses* - Outcome studies would be pre-planned and implemented concurrently with the prevention and intervention programs. Modifications to the overall model and programs would be made as a function of the results of these evaluations.

Although these six phases are generally in sequential order, components of each could be implemented out-of-sequence dependent upon the specific circumstances.

Conclusion

Mental health issues are clearly tied to the youths incarcerated at the Hawai‘i Youth Correctional Facility (HYCF). Nearly all of the adolescents who received a psychiatric evaluation had a mental health disorder, and more than half had two or more psychiatric disorders—with higher comorbidity rates associated with conduct disorder and substance abuse/dependency. However, affective disorders were also of concern for approximately one-fourth of the HYCF population.

A comprehensive developmental approach is needed to address the complex issues related to the mental health of these diverse youths. Such an approach should include qualitative and quantitative components from a cross-sectional and longitudinal perspective with multiple stakeholders in mind. Ultimately, the goals are the development and implementation of effective prevention and intervention strategies to decrease the prevalence of mental health disorders.

References

- Bradford, M. S., & Perrone, P. (2001). *Incarcerated juveniles and recidivism in Hawai‘i: A report to the Office of Youth Services, Department of Human Services*. Honolulu, HI: Crime Prevention & Justice Assistance Division, Department of the Attorney General, State of Hawai‘i.
- Chesney-Lind, M., Kato, D., Koo, J., & Clark, K. F. (1997). *Girls at risk: An overview of female delinquency in the 50th state: A report of the Hawai‘i Girls Project* (Vol. 1). Honolulu, HI: Center for Youth Research, Social Science Research Institute (Publication No. 392), University of Hawai‘i at Mānoa.
- Chesney-Lind, M., Koo, J., Kato, D., & Clark, K. F. (1998). *Girls at risk: An overview of gender-specific programming issues and initiatives: A report of the Hawai‘i girls project* (Vol. 2). Honolulu, HI: Center for Youth Research, Social Science Research Institute, (Publication No. 394), University of Hawai‘i at Mānoa.
- Chesney-Lind, M., Mayeda, D., Koo, J., Okamoto, S., Marker, N., Freitas, K., & Paramore, V. (2000). *An inquiry into youth crime and violence in Hawai‘i: Interim report to the 20th Hawai‘i*

State Legislature. Honolulu, HI: Center for Youth Research, Social Science Research Institute, University of Hawai‘i at Mānoa.

Chesney-Lind, M., Mayeda, D., Marker, N., Okamoto, S., Koo, J., Pasko, L., Woo, K., & Balayan, E. (2001). *Dimensions of youth gang membership and juvenile delinquency in Hawai‘i* (Vol. 1). Honolulu, HI: Center for Youth Research, Social Science Research Institute, (Publication No. 410), University of Hawai‘i at Mānoa.

Chesney-Lind, M., Mayeda, D., Paramore, V., Okamoto, S., & Marker, N. (1999). *Delinquency and gangs in Hawai‘i (Vol. 1): Prevalence*. Honolulu, HI: Youth Gang Project, Center for Youth Research, Social Science Research Institute (Publication No. 398), University of Hawai‘i at Mānoa.

Cocozza, J. J. (Ed.). (1992). *Responding to youth with mental disorders in the juvenile justice system*. Seattle, WA: National Coalition for the Mentally Ill in the Criminal Justice System.

Department of the Attorney General, State of Hawai‘i. (1998). *Crime in Hawai‘i, 1998: A review of uniform crime reports*. Honolulu, HI: Crime Prevention & Justice Assistance Division, Department of the Attorney General, State of Hawai‘i.

Dryfoos, J. Y. (1990). *Adolescents at risk: Prevalence and prevention*. New York: Oxford University Press.

Jensen, J. M., & Howard, M. O. (1999). *Youth violence: Current research and recent practice innovations*. Washington, DC: National Association of Social Workers.

Kassebaum, G., Lau, C. W. S., Leverette, J., Allingham, E., & Marker, N. (1995a). *Identifying disproportionate representation of ethnic groups in Hawai‘i’s juvenile justice system: Phase I*. Honolulu, HI: Center for Youth Research, Social Science Research Institute (Publication No. 379), University of Hawai‘i at Mānoa.

Kassebaum, G., Marker, N., Lau, C. W., Kwack, D. G., Shera, W., Leverette, J., Niimoto, G., Allingham, E., & Kato, D. (1995b). *Assessing disproportionate representation of ethnic groups in Hawai‘i’s juvenile justice system: Phase II*. Honolulu, HI: Center for Youth Research, Social Science Research Institute (Publication No. 384), University of Hawai‘i at Mānoa.

Loeber, R., Farrington, D. P., Stouthamer-Loeber, M., & van Kammen, W. B. (1998). *Antisocial behavior and mental health problems: Explanatory factors in childhood and adolescence*.

Mahwah, NJ: Lawrence Erlbaum Associates.

Werner, E. (1987). Vulnerability and resiliency in children at risk for delinquency: A longitudinal study from birth to adulthood. In J. D. Burchard & S. N. Burchard (Eds.), *Primary prevention of delinquent behavior* (pp. 7-43). Hanover, NH: University Press of New England.

Appendix A - Measures and Operational Definitions

The following is a list of the variables that required further elaboration regarding their operational definitions. These definitions are important because their coding and prevalence may be highly dependent upon the manner in which the variables are defined.

Demographic

Age. Age was calculated using the date of birth and date of first admissions during the study period of July 1, 1999 to June 31, 2000.

Place of birth. When discrepant information was found, information was used from the “pertinent information sheet.”

Ethnicity. This variable was coded based on all available data, which allowed for individuals to be grouped based on mixed ancestries. Ethnicity data were not available for only one participant.

Employment status. Information regarding employment status was recorded for the primary family supporter.

Family

Residence prior to HYCF. This variable reflected the residence of youths’ homes. Youths who were detained at the detention home on O‘ahu prior to their commitment to HYCF were not considered to be residing on O‘ahu if their home residence was a neighbor island.

Family status. “Blended” family was defined as one with a step-parent and/or step-sibling living together.

Birth order. Information regarding births of twins were not accounted for within this report.

Raised mostly by. Although the word “mostly” in the variable name implies the choice of only one response, more than one code occurred for some youths. Therefore, the frequency

and percentage were calculated for each choice separately. For purposes of this report, an adoptive parent included anyone who adopted one of the youths, including a family member.

Teenage parent. This variable included only the adolescents who were parents (as opposed to females who were pregnant, but no further status was indicated).

Family psychiatric history. Affirmative cases were those where at least one immediate or extended family member was formally diagnosed with a psychiatric disorder. This did not include family members who were suicidal without a formal psychiatric diagnosis. “Alcoholism” and “alcoholic” were considered alcohol dependency and thus entered affirmatively. On the other hand, “vague history of substance abuse” and “dad drinks a lot” were not considered a formal diagnosis.

Family history of incarceration. This variable was coded affirmatively only when at least one immediate or extended family member was incarcerated (as opposed to “convicted,” had “legal problems/difficulties”). Significant others (e.g., boyfriend) who were not married to the adolescent were not considered “family members” for the purpose of operationalizing this variable.

Current Crime Commitment Offense

Personal. This category included: abuse of family household member, accidental body injury, assault, assault police officer, attempted assault, endangering the welfare of minor, harassment, kidnapping, negligent homicide, and terroristic threatening.

Probation. This category included: motion to revocation of probation, revocation of parole, revocation of probation, violation of probation, and violation of protected supervision. violation, and unloaded firearm.

Drugs. This category included: detrimental drugs, drug paraphernalia, and promotion of detrimental drugs.

Status. This category included: curfew, driving under intoxication under 21, prohibitions involving a minor, runaway, and truancy.

“2 or more.” When the current commitment offenses for a given youth fell into more than two different categories above, the adolescent was placed into this group of “2 or more.”

Special Education

The presence of “special education” was defined as the youth either being diagnosed/certified with an educational disability (including emotionally disabled) or “in special education.” Statements such as “has academic difficulties” was not coded as being affirmative.

Violence

A matrix was derived with victim on one axis and perpetrator on the other axis. When an incidence of violence was extracted from the records, it was coded within the matrix to indicate who the victim was, who the perpetrator was, and the type of violence/assault (i.e., physical abuse, assault, sexual abuse, emotional abuse). The youth may or may not have actually witnessed the violence for the event to be coded affirmatively (e.g., one parent hitting another parent in the absence of the youth). When violence occurred, but the victim, perpetrator, or type of violence was not clear, this event was coded as “unspecified” violence. “Verbal abuse” was coded as “emotional abuse.” “Spanking” with clear negative connotations was coded as physical abuse. The following were not coded as violence: “suspicion of violence,” “terroristic threatening,” “verbal threats,” “threats of assault,” “hijacking,” and “bullied.” For the present purpose, although a suicide attempt could be considered violence against oneself, this type of act was not coded in the matrix, but rather, coded in a separate variable called suicide attempts.

Gang involvement. Youths were indicated affirmatively on this variable only when there was direct involvement. For example, associating with a friend who was in a gang was not coded. Contradictory information (e.g., school says that the youth was a gang member, youth says he/she was not) was rectified with reliance on the youth; this occurred very infrequently.

Substance Use

Age of substance use. When an age range was provided, the mean was entered as the age.

Mental Health

Axis I diagnosis. Information regarding Axis I diagnoses was categorized into six separate categories as indicated in the Results section.

Treatment Recommendations

Group psychotherapy. “Group therapy directed at substance abuse training” was coded as “group psychotherapy.”

Table 1
Frequencies and Percents of Type of Current Commitment Offense (N = 269)

TYPE	TYPE OF OFFENSE													
	<u>Personal</u>		<u>Probation</u>		<u>Property</u>		<u>"Other"</u>		<u>Status^a</u>		<u>Drug^b</u>		<u>2 or More^c</u>	
	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%
At least	74	27.5	93	34.6	111	41.3	62	23.1	6	2.2	8	3.0	na	na
Only ^d	35	13.0	73	27.1	61	22.7	26	9.7	na	na	na	na	74	27.5

^a There was only 1 participant with "Status Only"; this participant is not included in this analysis.

^b There were no participants with "Drug Only."

^c "2 or more" includes 2 or more of the 6 category offenses: Personal, Probation, Property, "Other," Status and Drugs.

^d Comparison of frequencies is statistically significant: $\chi^2 (4, N = 269) = 36.33, p < .0001$.

Table 2

Frequencies and Percents of Ethnic Groups (N = 268)^a

ETHNICITY	Hawai'i Youth Correctional Facility		Hawai'i Health Surveillance Youth ^b (Ages 14-17)		Hawai'i Health Surveillance	1990 Census (Ages 14-18)
	<u>Any</u>		<u>Only</u>		<u>All^c</u>	<u>14-18</u>
	Column N	Column %	Column N	Column %	Column %	Column %
Caucasian	168	62.7	20	7.5	13.1	22.1
Asian	154	57.5	23	8.6		
Cambodian	1	0.4	1	0.4		
Chinese	63	23.5	0	0.0		
Korean	11	4.1	2	0.7		
Filipino	92	34.3	18	6.7	14.9	10.0
Japanese	41	15.3	1	0.4	13.4	20.3
Laotian	1	0.4	1	0.4		
Thai	1	0.4	0	0.0		
Pacific Islander	164	61.2	155	57.8		
Guamanian	5	1.9	0	0.0		
Hawaiian	148	55.2	4	1.5		18.1 ^d
Part-Hawaiian	na	na	144	53.7	29.6	20.6
Micronesian	2	0.7	1	0.4		
Samoan	24	9.0	5	1.9		
Tahitian	2	0.7	0	0.0		
Tokelauan	1	0.4	0	0.0		
Tongan	3	1.1	1	0.4		
Other	na	na	6	2.2		6.2
African American	24	9.0	2	0.7		
Alaska Native	1	0.4	0	0.0		
Hispanic	63	23.5	5	1.9		
"Indian"	2	0.7	0	0.0		
Jamaican	1	0.4	0	0.0		
Native Am. Indi	20	7.5	0	0.0		
Mixed Non-Hawaiian	na	na	63	23.5		20.8

^a The ethnicity of one youth could not be determined from the records.

^b Average of 1991 & 1996; Hawai'i Health Surveillance, special unpublished data, personal communication, July 1997.

^c Department of Business, Economic Development & Tourism, State of Hawai'i, 1997.

^d Forced choice format (most are part-Hawaiian).

Table 3
Means, Standard Deviations, and N Sizes of Demographic Variables By Type of Current Commitment Offense (N = 269)

VARIABLES	TYPE OF OFFENSE											Analysis of Variance (ANOVA)				N-K Diff. ^b	
	Total	Personal Only (G1)		Probation Only (G2)		Property Only (G3)		"Other" Only (G4)		2 or More ^a (G5)		F	(df)	p	R ²		
	Mean (SD)	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N						
Age (in years) (at 1st commitment) (07/01/99 to 06/31/00)	16.82 (1.24)	269	16.81 (1.28)	35	16.98 (0.94)	73	16.83 (1.37)	61	16.40 (1.38)	26	16.81 (1.30)	74	1.07	(4, 264)	.3706	.016	ns
Number of Admissions (07/01/99 to 06/31/00)	1.16 (0.42)	269	1.20 (0.47)	35	1.19 (0.46)	73	1.13 (0.39)	61	1.19 (0.49)	26	1.11 (0.35)	74	0.57	(4, 264)	.6881	.008	ns

Note:

^a "2 or more" includes 2 or more of the 6 category offenses: Personal, Probation, Property, "Other," Status, and Drugs.

^b Newman-Keuls subsequent tests; ns = not significant.

Table 4
Frequencies and Percents of Demographic Variables by Type of Current Commitment Offense (N = 269)

VARIABLES	TYPE OF OFFENSE												Chi Square ^o		
	Total		Personal Only		Probation Only		Property Only		"Other" Only		2 or More ^a				
	N	C%	N	C%	N	C%	N	C%	N	C%	N	C%	χ^2	(df)	p
Gender													124.49	(1)	<.0001
Male	226	84.0	28	80.0	59	80.8	53	86.9	23	88.5	63	85.1	1.80	(4)	.7724
Female	43	16.0	7	20.0	14	19.2	8	13.1	3	11.5	11	14.9			
Birth Place													292.00	(3)	<.0001
Hawai'i	186	69.1	24	68.6	55	75.3	42	68.9	18	69.2	47	63.5	17.20	(12)	.1421
Mainland/U.S. territory	51	19.0	6	17.1	10	13.7	9	14.8	4	15.4	22	29.7			
International	19	7.1	2	5.7	7	9.6	5	8.2	1	3.9	4	5.4			
No indication	13	4.8	3	8.6	1	1.4	5	8.2	3	11.5	1	1.4			
Ethnicity (N = 268)													234.95	(4)	<.0001
Caucasian	20	7.5	2	5.7	8	11.0	3	5.0	1	3.9	6	8.1	15.24	(16)	.5068
Filipino	18	6.7	3	8.6	6	8.2	3	5.0	2	7.7	4	5.4			
Hawaiian/part-Hawaiian	148	55.2	18	51.4	35	48.0	39	65.0	13	50.0	43	58.1			
Mixed non-Hawaiian	63	23.5	8	22.9	15	20.6	13	21.7	10	38.5	17	23.0			
Other non-mixed	19	7.1	4	11.4	9	12.3	2	3.3	0	0.0	4	5.4			

Note:

^a "2 or more" includes 2 or more of the 6 category offenses: Personal, Probation, Property, "Other," Status, and Drugs.

^b For each variable, the first chi square refers to the total; the second chi square refers to the interaction between the variable a type of offense. Chi square analyses involving cells of 5 or less should be interpreted with caution.

Table 5
Means, Standard Deviations, and N Sizes of Family Variables By Type of Current Commitment Offense

VARIABLES	TYPE OF OFFENSE												Analysis of Variance (ANOVA)			N-K Diff. ^b		
	Total	Personal Only (G1)		Probation Only (G2)		Property Only (G3)		"Other" Only (G4)		2 or More ^a (G5)		N	F	(df)	p		R ²	
	Mean (SD)	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N							
Number of Siblings																		
Biological siblings	1.93 (1.49)	144	2.29 (1.38)	14	1.60 (1.27)	45	1.97 (1.20)	31	2.60 (2.53)	15	1.90 (1.43)	39	1.53	(4, 139)	.1959	.042		ns
Half brothers	1.70 (1.46)	54	1.63 (0.92)	8	1.54 (1.13)	13	1.14 (0.36)	14	1.57 (0.79)	7	2.67 (2.53)	12	2.02	(4, 49)	.1056	.142		ns
Half sisters	1.48 (0.88)	40	1.50 (0.58)	4	1.18 (0.40)	11	1.88 (1.73)	8	1.33 (0.52)	6	1.55 (0.52)	11	0.76	(4, 35)	.5567	.080		ns
Step brothers	1.71 (0.95)	7	na na	0	1.33 (0.58)	3	3.00 (0.00)	1	na na	0	1.67 (1.15)	3	1.26	(2, 4)	.3770	.386		ns
Step sisters	2.00 (0.89)	6	2.00 (1.00)	3	3.00 (0.00)	1	na na	0	na na	0	1.50 (0.71)	2	0.90	(2, 3)	.4941	.375		ns

Note:

^a "2 or more" includes 2 or more of the 6 category offenses: Personal, Probation, Property, "Other," Status, and Drugs.

^b Newman-Keuls subsequent tests; ns = not significant.

Table 5
Means, Standard Deviations, and N Sizes of Family Variables By Type of Current Commitment Offense

VARIABLES	TYPE OF OFFENSE												Analysis of Variance (ANOVA)			
	Total		Personal Only (G1)	Probation Only (G2)	Property Only (G3)	"Other" Only (G4)	2 or More ^a (G5)									
	Mean	N	Mean	Mean	Mean	Mean	Mean	N	F	(df)	p	R ²	N-K Diff. ^b			
	(SD)		(SD)	(SD)	(SD)	(SD)	(SD)									
Number of Siblings																
Biological siblings	1.93 (1.49)	144	2.29 (1.38)	14	1.60 (1.27)	45	1.97 (1.20)	31	2.60 (2.53)	15	1.90 (1.43)	39	1.53(4, 139)	.1959	.042	ns
Half brothers	1.70 (1.46)	54	1.63 (0.92)	8	1.54 (1.13)	13	1.14 (0.36)	14	1.57 (0.79)	7	2.67 (2.53)	12	2.02 (4, 49)	.1056	.142	ns
Half sisters	1.48 (0.88)	40	1.50 (0.58)	4	1.18 (0.40)	11	1.88 (1.73)	8	1.33 (0.52)	6	1.55 (0.52)	11	0.76 (4, 35)	.5567	.080	ns
Step brothers	1.71 (0.95)	7	na na	0	1.33 (0.58)	3	3.00 (0.00)	1	na na	0	1.67 (1.15)	3	1.26 (2, 4)	.3770	.386	ns
Step sisters	2.00 (0.89)	6	2.00 (1.00)	3	3.00 (0.00)	1	na na	0	na na	0	1.50 (0.71)	2	0.90 (2, 3)	.4941	.375	ns

Note:

^a "2 or more" includes 2 or more of the 6 category offenses: Personal, Probation, Property, "Other," Status, and Drugs.

^b Newman-Keuls subsequent tests; ns = not significant.

Table 7
Frequencies and Percents of Family Variables by Type of Current Commitment Offense (N = 269)

VARIABLES	TYPE OF OFFENSE												Chi Square ^b		
	Total		Personal Only		Probation Only		Property Only		"Other" Only		2 or More ^a				
	N	C%	N	C%	N	C%	N	C%	N	C%	N	C%	χ^2	(df)	p
Raised Mostly By															
Biological father													30.78	(1)	<.0001
Yes	89	33.1	9	25.7	23	31.5	17	27.9	6	23.1	34	46.0	8.40	(4)	.0781
No/no indication	180	66.9	26	74.3	50	68.5	44	72.1	20	76.9	40	54.1			
Biological mother													25.61	(1)	<.0001
Yes	176	65.4	19	54.3	46	63.0	39	63.9	19	73.1	53	71.6	4.10	(4)	.3931
No/no indication	93	34.6	16	45.7	27	37.0	22	36.1	7	26.9	21	28.4			
Maternal grandparent(s)													168.66	(1)	<.0001
Yes	28	10.4	4	11.4	6	8.2	8	13.1	1	3.9	9	12.2	2.34	(4)	.6739
No/no indication	241	89.6	31	88.6	67	91.8	53	86.9	25	96.2	65	87.8			
Paternal grandparent(s)													234.20	(1)	<.0001
Yes	9	3.4	2	5.7	3	4.1	1	1.6	1	3.9	2	2.7	1.40	(4)	.8437
No/no indication	260	96.7	33	94.3	70	95.9	60	98.4	25	96.2	72	97.3			
Relative(s)													147.22	(1)	<.0001
Yes	35	13.0	1	2.9	11	15.1	4	6.6	5	19.2	14	18.9	8.88	(4)	.0643
No/no indication	234	87.0	34	97.1	62	84.9	57	93.4	21	80.8	60	81.1			
Older sibling(s)													249.37	(1)	<.0001
Yes	5	1.9	1	2.9	3	4.1	0	0.0	1	3.9	0	0.0	5.34	(4)	.2543
No/no indication	264	98.1	34	97.1	70	95.9	61	100.0	25	96.2	74	100.0			
Adoptive parent(s)													230.49	(1)	<.0001
Yes	10	3.7	2	5.7	4	5.5	2	3.3	1	3.9	1	1.4	2.21	(4)	.6964
No/no indication	259	96.3	33	94.3	69	94.5	59	96.7	25	96.2	73	98.7			
Foster parent(s)													215.91	(1)	<.0001
Yes	14	5.2	0	0.0	3	4.1	5	8.2	0	0.0	6	8.1	5.90	(4)	.2069
No/no indication	255	94.8	35	100.0	70	95.9	56	91.8	26	100.0	68	91.9			
Other													116.46	(1)	<.0001
Yes	46	17.1	6	17.1	10	13.7	7	11.5	5	19.2	18	24.3	4.76	(4)	.3123
No/no indication	223	82.9	29	82.9	63	86.3	54	88.5	21	80.8	56	75.7			

Note:

^a "2 or more" includes 2 or more of the 6 category offenses: Personal, Probation, Property, "Other," Status, and Drugs.

^b For each variable, the first chi square refers to the total; the second chi square refers to the interaction between the variable type of offense. Chi square analyses involving cells of 5 or less should be interpreted with caution.

Table 8
Frequencies and Percents of Family Variables by Type of Current Commitment Offense (N = 269)

VARIABLES	TYPE OF OFFENSE												Chi Square ^v		
	Total		Personal Only		Probation Only		Property Only		"Other" Only		2 or More ^a				
	N	C%	N	C%	N	C%	N	C%	N	C%	N	C%	χ^2	(df)	p
Family Status															
Intact biological parents													178.29	(1)	<.0001
Yes	25	9.3	2	5.7	9	12.3	5	8.2	1	3.9	8	10.8	2.53	(4)	.6386
No/no indication	244	90.7	33	94.3	64	87.7	56	91.8	25	96.2	66	89.2			
Single parent													11.25	(1)	.0008
Yes	107	39.8	12	34.3	23	31.5	28	45.9	11	42.3	33	44.6	4.27	(4)	.3711
No/no indication	162	60.2	23	65.7	50	68.5	33	54.1	15	57.7	41	55.4			
Blended Family													113.85	(1)	<.0001
Yes	47	17.5	6	17.1	12	16.4	10	16.4	6	23.1	13	17.6	0.67	(4)	.9546
No/no indication	222	82.5	29	82.9	61	83.6	51	83.6	20	76.9	61	82.4			
Lives with relatives													138.47	(1)	<.0001
Yes	38	14.1	3	8.6	13	17.8	8	13.1	7	26.9	7	9.5	6.60	(4)	.1588
No/no indication	231	85.9	32	91.4	60	82.2	53	86.9	19	73.1	67	90.5			
Adoptive home													253.24	(1)	<.0001
Yes	4	1.5	1	2.9	1	1.4	1	1.6	0	0.0	1	1.4	0.87	(4)	.9293
No/no indication	265	98.5	34	97.1	72	98.6	60	98.4	26	100.0	73	98.7			
Foster home													241.73	(1)	<.0001
Yes	7	2.6	1	2.9	3	4.1	0	0.0	0	0.0	3	4.1	3.60	(4)	.4624
No/no indication	262	97.4	34	97.1	70	95.9	61	100.0	26	100.0	71	96.0			
Temporary placement													257.13	(1)	<.0001
Yes	3	1.1	0	0.0	0	0.0	2	3.3	0	0.0	1	1.4	4.14	(4)	.3877
No/no indication	266	98.9	35	100.0	73	100.0	59	96.7	26	100.0	73	98.7			
Homeless													261.06	(1)	<.0001
Yes	2	0.7	0	0.0	0	0.0	0	0.0	0	0.0	2	2.7	5.31	(4)	.2570
No/no indication	267	99.3	35	100.0	73	100.0	61	100.0	26	100.0	72	97.3			
Other													132.79	(1)	<.0001
Yes	40	14.9	6	17.1	10	13.7	8	13.1	6	23.1	10	13.5	1.86	(4)	.7612
No/no indication	229	85.1	29	82.9	63	86.3	53	86.9	20	76.9	64	86.5			

Note:
^a "2 or more" includes 2 or more of the 6 category offenses: Personal, Probation, Property, "Other," Status, and Drugs.

^b For each variable, the first chi square refers to the total; the second chi square refers to the interaction between the variable and type of offense. Chi square analyses involving cells of 5 or less should be interpreted with caution.

Table 9
Frequencies and Percents of Family Variables by Type of Current Commitment Offense (N = 269)

VARIABLES	TYPE OF OFFENSE												Chi Square ^b		
	Total		Personal Only		Probation Only		Property Only		"Other" Only		2 or More ^a		χ^2	(df)	p
	N	C%	N	C%	N	C%	N	C%	N	C%	N	C%			
Employment Status of Primary Family Supporter	(269)		(35)		(73)		(61)		(26)		(74)				
Unemployed													208.81	(1)	<.0001
Yes	16	6.0	1	2.9	6	8.2	5	8.2	2	7.7	2	2.7	3.36	(4)	.5000
No/no indication	253	94.1	34	97.1	67	91.8	56	91.8	24	92.3	72	97.3			
Military, active duty													245.54	(1)	<.0001
Yes	6	2.2	0	0.0	3	4.1	2	3.3	0	0.0	1	1.4	3.14	(4)	.5341
No/no indication	263	97.8	35	100.0	70	95.9	59	96.7	26	100.0	73	98.7			
Physical labor													249.37	(1)	<.0001
Yes	5	1.9	0	0.0	2	2.7	1	1.6	0	0.0	2	2.7	1.77	(4)	.7778
No/no indication	264	98.1	35	100.0	71	97.3	60	98.4	26	100.0	72	97.3			
Clerical													265.01	(1)	<.0001
Yes	1	0.4	0	0.0	0	0.0	0	0.0	0	0.0	1	1.4	2.65	(4)	.6189
No/no indication	268	99.6	35	100.0	73	100.0	61	100.0	26	100.0	73	98.7			
Custodial/housekeeping													257.13	(1)	<.0001
Yes	3	1.1	1	2.9	0	0.0	0	0.0	0	0.0	2	2.7	4.46	(4)	.3475
No/no indication	266	98.9	34	97.1	73	100.0	61	100.0	26	100.0	72	97.3			
Supervisory/managerial													261.06	(1)	<.0001
Yes	2	0.7	0	0.0	1	1.4	1	1.6	0	0.0	0	0.0	2.06	(4)	.7242
No/no indication	267	99.3	35	100.0	72	98.6	60	98.4	26	100.0	74	100.0			
Proprietor													249.37	(1)	<.0001
Yes	5	1.9	0	0.0	2	2.7	1	1.6	1	3.9	1	1.4	1.66	(4)	.7985
No/no indication	264	98.1	35	100.0	71	97.3	60	98.4	25	96.2	73	98.7			
Educator (college, univ.)													na	na	na
Yes	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	na	na	na
No/no indication	269	100.0	35	100.0	73	100.0	61	100.0	26	100.0	74	100.0			
Executive													265.01	(1)	<.0001
Yes	1	0.4	0	0.0	0	0.0	0	0.0	0	0.0	1	1.4	2.65	(4)	.6189
No/no indication	268	99.6	35	100.0	73	100.0	61	100.0	26	100.0	73	98.7			
Other													22.04	(1)	<.0001
Yes	96	35.7	11	31.4	23	31.5	23	37.7	11	42.3	28	37.8	1.59	(4)	.8113
No/no indication	173	64.3	24	68.6	50	68.5	38	62.3	15	57.7	46	62.2			
Teenage Parent													171.84	(1)	<.0001
Yes	27	10.0	2	5.7	7	9.6	6	9.8	2	7.7	10	13.5	1.89	(4)	.7556
No/no indication	242	90.0	33	94.3	66	90.4	55	90.2	24	92.3	64	86.5			
Family Psychiatric History													18.74	(1)	<.0001
Yes	99	36.8	11	31.4	30	41.1	22	36.1	6	23.1	30	40.5	3.58	(4)	.4661
No/no indication	170	63.2	24	68.6	43	58.9	39	63.9	20	76.9	44	59.5			
Family History of Incarceration													103.68	(1)	<.0001
Yes	51	19.0	7	20.0	16	21.9	17	27.9	1	3.9	10	13.5	8.89	(4)	.0640
No/no indication	218	81.0	28	80.0	57	78.1	44	72.1	25	96.2	64	86.5			

Note:

^a "2 or more" includes 2 or more of the 6 category offenses: Personal, Probation, Property, "Other," Status, and Drugs.

^b For each variable, the first chi square refers to the total; the second chi square refers to the interaction between the variable and type of offense. Chi square analyses involving cells of 5 or less should be interpreted with caution.

Table 10
Means, Standard Deviations, and N Sizes of Child Development/Health Variables By Type of Current Commitment Offense

VARIABLES	TYPE OF OFFENSE						Analysis of Variance (ANOVA)				N-K Diff. ^b						
	Total	Personal Only (G1)	Probation Only (G2)	Property Only (G3)	"Other" Only (G4)	2 or More ^a (G5)	N	F	(df)	p		R ²					
	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)											
Birth Weight (in ounces)	87.85 (30.15)	184 (22.20)	89.14 (25.51)	28 (30.77)	87.74 (30.77)	54 (35.63)	91.76 (37.03)	41	87.18	17	83.80	44	0.38	4, 179)	.8221	.008	ns

Note:

^a "2 or more" includes 2 or more of the 6 category offenses: Personal, Probation, Property, "Other," Status, and Drugs.

^b Newman-Keuls subsequent tests; ns = not significant.

Table 11
Frequencies and Percents of Child Development/Health Variables by Type of Current Commitment Offense (N = 269)

VARIABLES	TYPE OF OFFENSE												Chi Square ^b		
	Total		Personal Only		Probation Only		Property Only		"Other" Only		2 or More ^a				
	N	C%	N	C%	N	C%	N	C%	N	C%	N	C%	χ^2	(df)	p
Prenatal Complications															
Yes	24	8.9	1	2.9	7	9.6	8	13.1	2	7.7	6	8.1	181.57	(1)	<.0001
No/no indication	245	91.1	34	97.1	66	90.4	53	86.9	24	92.3	68	91.9	3.05	(4)	.5491
Perinatal/Delivery Complications															
Yes	16	6.0	0	0.0	7	9.6	5	8.2	1	3.9	3	4.1	208.81	(1)	<.0001
No/no indication	253	94.1	35	100.0	66	90.4	56	91.8	25	96.2	71	96.0	5.17	(4)	.2698

Note:

^a "2 or more" includes 2 or more of the 6 category offenses: Personal, Probation, Property, "Other," Status, and Drugs.

^b For each variable, the first chi square refers to the total; the second chi square refers to the interaction between the variable and type of offense. Chi square analyses involving cells of 5 or less should be interpreted with caution.

Table 12
Frequencies and Percents of Child Development/Health Variables by Type of Current Commitment Offense (N = 269)

VARIABLES	TYPE OF OFFENSE												Chi Square ^d		
	Total		Personal Only		Probation Only		Property Only		"Other" Only		2 or More ^a				
	N (269)	C%	N (35)	C%	N (73)	C%	N (61)	C%	N (26)	C%	N (74)	C%	χ^2	(df)	p
Perinatal Status															
Born out of wedlock													138.47	(1) <.0001	
Yes	38	14.1	3	8.6	10	13.7	6	9.8	4	15.4	15	20.3	4.16	(4)	.3843
No/no indication	231	85.9	32	91.4	63	86.3	55	90.2	22	84.6	59	79.7			
Never seen father													223.14	(1) <.0001	
Yes	12	4.5	2	5.7	2	2.7	3	4.9	2	7.7	3	4.1	1.33	(4)	.8559
No/no indication	257	95.5	33	94.3	71	97.3	58	95.1	24	92.3	71	96.0			
Never seen mother													261.06	(1) <.0001	
Yes	2	0.7	0	0.0	1	1.4	0	0.0	0	0.0	1	1.4	1.67	(4)	.7957
No/no indication	267	99.3	35	100.0	72	98.6	61	100.0	26	100.0	73	98.7			
Carries father's name													5.09	(1)	.0241
Yes	116	43.1	16	45.7	32	43.8	27	44.3	8	30.8	33	44.6	1.83	(4)	.7677
No/no indication	153	56.9	19	54.3	41	56.2	34	55.7	18	69.2	41	55.4			
Carries mother's name													159.29	(1) <.0001	
Yes	31	11.5	2	5.7	11	15.1	4	6.6	3	11.5	11	14.9	4.34	(4)	.3615
No/no indication	238	88.5	33	94.3	62	84.9	57	93.4	23	88.5	63	85.1			
Other													230.49	(1) <.0001	
Yes	10	3.7	1	2.9	3	4.1	1	1.6	2	7.7	3	4.1	2.01	(4)	.7338
No/no indication	259	96.3	34	97.1	70	95.9	60	98.4	24	92.3	71	96.0			
Premature Delivery															
Yes	8	3.0	0	0.0	5	6.9	2	3.3	0	0.0	1	1.4	6.36	(4)	.1736
No/no indication	261	97.0	35	100.0	68	93.2	59	96.7	26	100.0	73	98.7			
Accidental Injuries															
Yes	119	44.2	8	22.9	33	45.2	27	44.3	10	38.5	41	55.4	3.57	(1)	.0587
No/no indication	150	55.8	27	77.1	40	54.8	34	55.7	16	61.5	33	44.6	10.61	(4)	.0314
Loss of Consciousness															
Yes	30	11.2	3	8.6	9	12.3	8	13.1	3	11.5	7	9.5	162.38	(1) <.0001	
No/no indication	239	88.9	32	91.4	64	87.7	53	86.9	23	88.5	67	90.5	0.79	(4)	.9395
Physical Deformity															
Yes	4	1.5	0	0.0	1	1.4	1	1.6	1	3.9	1	1.4	253.24	(1) <.0001	
No/no indication	265	98.5	35	100.0	72	98.6	60	98.4	25	96.2	73	98.7	1.54	(4)	.8192
Deformity															
Yes	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	na	na	na
No/no indication	269	100.0	35	100.0	73	100.0	61	100.0	26	100.0	74	100.0	na	na	na
Physical Handicap(s)															
Yes	5	1.9	1	2.9	2	2.7	2	3.3	0	0.0	0	0.0	249.37	(1) <.0001	
No/no indication	264	98.1	34	97.1	71	97.3	59	96.7	26	100.0	74	100.0	3.07	(4)	.5462
Past Significant Illness															
Yes	50	18.6	5	14.3	19	26.0	10	16.4	6	23.1	10	13.5	106.17	(1) <.0001	
No/no indication	219	81.4	30	85.7	54	74.0	51	83.6	20	76.9	64	86.5	4.90	(4)	.2980
Surgical Cond. & Operation															
Yes	36	13.4	3	8.6	10	13.7	12	19.7	2	7.7	9	12.2	144.27	(1) <.0001	
No/no indication	233	86.6	32	91.4	63	86.3	49	80.3	24	92.3	65	87.8	3.61	(4)	.4616

Note:

^a "2 or more" includes 2 or more of the 6 category offenses: Personal, Probation, Property, "Other," Status, and Drugs.

^b For each variable, the first chi square refers to the total; the second chi square refers to the interaction between the variable and type of offense. Chi square analyses involving cells of 5 or less should be interpreted with caution.

Table 13
Frequencies and Percents of Special Education by Type of Current Commitment Offense (N = 269)

VARIABLES	TYPE OF OFFENSE												Chi Square ^b		
	Total		Personal Only		Probation Only		Property Only		"Other" Only		2 or More ^a				
	N	C%	N	C%	N	C%	N	C%	N	C%	N	C%	χ^2	(df)	p
Special Education													98.77	(1)	<.0001
Yes	53	19.7	4	11.4	20	27.4	10	16.4	4	15.4	15	20.3	4.99	(4)	.2883
No/no indication	216	80.3	31	88.6	53	72.6	51	83.6	22	84.6	59	79.7			

Note:

^a "2 or more" includes 2 or more of the 6 category offenses: Personal, Probation, Property, "Other," Status, and Drugs.

^b For each variable, the first chi square refers to the total; the second chi square refers to the interaction between the variable and type of offense. Chi square analyses involving cells of 5 or less should be interpreted with caution.

Table 14
Frequencies and Percents of Violence Variables by Type of Current Commitment Offense (N = 269)

VARIABLES	TYPE OF OFFENSE												Chi Square ^d		
	Total		Personal Only		Probation Only		Property Only		"Other" Only		2 or More ^a				
	N	C%	N	C%	N	C%	N	C%	N	C%	N	C%	χ^2	(df)	p
Violence to Self & Others															
Self-victim													0.09	(1)	.7605
Yes	137	50.9	24	68.6	34	46.6	24	39.3	14	53.9	41	55.4	8.87	(4)	.0644
No/no indication	132	49.1	11	31.4	39	53.4	37	60.7	12	46.2	33	44.6			
Self-perpetrator													6.87	(1)	.0087
Yes	113	42.0	16	45.7	31	42.5	20	32.8	13	50.0	33	44.6	3.22	(4)	.5221
No/no indication	156	58.0	19	54.3	42	57.5	41	67.2	13	50.0	41	55.4			
Other (non-self)													101.21	(1)	<.0001
Yes	52	19.3	7	20.0	16	21.9	10	16.4	5	19.2	14	18.9	0.67	(4)	.9551
No/no indication	217	80.7	28	80.0	57	78.1	51	83.6	21	80.8	60	81.1			
Unspecified violence													15.71	(1)	<.0001
Yes	102	37.9	12	34.3	23	31.5	23	37.7	15	57.7	29	39.2	5.84	(4)	.2113
No/no indication	167	62.1	23	65.7	50	68.5	38	62.3	11	42.3	45	60.8			
Any violence													73.91	(1)	<.0001
Yes	205	76.2	29	82.9	54	74.0	38	62.3	25	96.2	59	79.7	13.78	(4)	.0080
No/no indication	64	23.8	6	17.1	19	26.0	23	37.7	1	3.9	15	20.3			

Note:

^a "2 or more" includes 2 or more of the 6 category offenses: Personal, Probation, Property, "Other," Status, and Drugs.

^b For each variable, the first chi square refers to the total; the second chi square refers to the interaction between the variable and type of offense. Chi square analyses involving cells of 5 or less should be interpreted with caution.

Table 15
Frequencies and Percents of Violence Variables by Type of Current Commitment Offense (N = 269)

VARIABLES	TYPE OF OFFENSE												Chi Square ^b		
	Total		Personal Only		Probation Only		Property Only		"Other" Only		2 or More ^a				
	N (269)	C%	N (35)	C%	N (73)	C%	N (61)	C%	N (26)	C%	N (74)	C%	χ^2	(df)	p
Gang Involvement													121.79	(1)	<.0001
Yes	44	16.4	5	14.3	12	16.4	12	19.7	5	19.2	10	13.5	1.19	(4)	.8790
No/no indication	225	83.6	30	85.7	61	83.6	49	80.3	21	80.8	64	86.5			

Note:

^a "2 or more" includes 2 or more of the 6 category offenses: Personal, Probation, Property, "Other," Status, and Drugs.

^b For each variable, the first chi square refers to the total; the second chi square refers to the interaction between the variable and type of offense. Chi square analyses involving cells of 5 or less should be interpreted with caution.

Table 16
Means, Standard Deviations, and N Sizes of Substance Use Variables By Type of Current Commitment Offense

VARIABLES	TYPE OF OFFENSE						Analysis of Variance (ANOVA)					N-K Diff. ^b
	Total	Personal Only (G1)	Probation Only (G2)	Property Only (G3)	"Other" Only (G4)	2 or More ^a (G5)	F	(df)	p	R ²		
	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)	Mean (SD)						
Age of Substance Use												
Cigarettes	11.85 (2.15)	83 12.13 (1.64)	8 11.32 (2.03)	22 11.54 (2.82)	13 11.69 (2.21)	13 12.43 (1.97)	27 0.94	(4, 78)	.4450	.046		ns
Alcohol	12.52 (2.42)	149 12.60 (1.90)	18 12.39 (2.60)	42 12.28 (3.11)	30 12.07 (2.71)	14 12.89 (1.80)	45 0.48	(4, 144)	.7517	.013		ns
Marijuana	12.16 (2.10)	181 12.64 (1.87)	21 12.56 (1.73)	54 11.84 (2.45)	37 11.08 (2.18)	18 12.17 (2.16)	51 2.21	(4, 176)	.0702	.048	G1, G2>G4	
Cocaine	13.96 (1.82)	26 14.40 (1.14)	5 14.20 (3.49)	5 13.00 (1.22)	5 14.50 (2.12)	2 14.00 (1.22)	9 0.44	(4, 21)	.7759	.078		ns
Methamphetamine	14.08 (1.93)	93 15.00 (1.10)	6 14.00 (1.91)	28 14.11 (1.57)	23 14.55 (1.29)	11 13.70 (2.55)	25 0.75	(4, 88)	.5617	.033		ns
Paints/glue	13.13 (0.95)	8 na	na	0 13.00 (0.82)	4 14.25 (0.35)	2 12.50 (0.00)	1 2.67	(3, 4)	.1835	.667		ns
Mushroom	13.60 (2.41)	15 13.00 (0.00)	1 14.00 (0.00)	1 12.83 (2.99)	6 13.00 (1.41)	2 14.80 (2.39)	5 0.43	(4, 10)	.7843	.147		ns
LSD	12.67 (2.13)	15 13.00 (0.00)	1 11.67 (1.53)	3 12.75 (2.06)	4 13.00 (1.41)	2 13.00 (3.16)	5 0.16	(4, 10)	.9515	.062		ns

Note:

^a "2 or more" includes 2 or more of the 6 category offenses: Personal, Probation, Property, "Other," Status, and Drugs.

^b Newman-Keuls subsequent tests; ns = not significant.

Table 17
Frequencies and Percents of Substance Use Variables by Type of Current Commitment Offense (N = 269)

VARIABLES	TYPE OF OFFENSE												Chi Square ^d		
	Total		Personal Only		Probation Only		Property Only		"Other" Only		2 or More ^a				
	N	C%	N	C%	N	C%	N	C%	N	C%	N	C%	χ^2	(df)	p
Substance Use History													230.49	(1)	<.0001
Yes	259	96.3	34	97.1	73	100.0	57	93.4	24	92.3	71	96.0	5.44	(4)	.2454
No/no indication	10	3.7	1	2.9	0	0.0	4	6.6	2	7.7	3	4.1			
Specific Substance Use															
Cigarette use													49.16	(1)	<.0001
Yes	192	71.4	25	71.4	55	75.3	42	68.9	19	73.1	51	68.9	1.01	(4)	.9086
No/no indication	77	28.6	10	28.6	18	24.7	19	31.2	7	26.9	23	31.1			
Alcohol use													141.36	(1)	<.0001
Yes	232	86.3	31	88.6	62	84.9	51	83.6	21	80.8	67	90.5	2.43	(4)	.6569
No/no indication	37	13.8	4	11.4	11	15.1	10	16.4	5	19.2	7	9.5			
Marijuana use													178.29	(1)	<.0001
Yes	244	90.7	30	85.7	70	95.9	55	90.2	22	84.6	67	90.5	4.53	(4)	.3390
No/No indication	25	9.3	5	14.3	3	4.1	6	9.8	4	15.4	7	9.5			
Cocaine use													73.91	(1)	<.0001
Yes	64	23.8	8	22.9	19	26.0	13	21.3	4	15.4	20	27.0	1.87	(4)	.7604
No/no indication	205	76.2	27	77.1	54	74.0	48	78.7	22	84.6	54	73.0			
Methamphetamine use													1.64	(1)	.2004
Yes	145	53.9	14	40.0	44	60.3	31	50.8	16	61.5	40	54.1	4.76	(4)	.3129
No/no indication	124	46.1	21	60.0	29	39.7	30	49.2	10	38.5	34	46.0			
Paints/glue use													181.57	(1)	<.0001
Yes	24	8.9	1	2.9	8	11.0	5	8.2	3	11.5	7	9.5	2.24	(4)	.6914
No/no indication	245	91.1	34	97.1	65	89.0	56	91.8	23	88.5	67	90.5			
Mushrooms use													106.17	(1)	<.0001
Yes	50	18.6	6	17.1	12	16.4	15	24.6	4	15.4	13	17.6	1.95	(4)	.7448
No/no indication	219	81.4	29	82.9	61	83.6	46	75.4	22	84.6	61	82.4			
LSD use													127.23	(1)	<.0001
Yes	42	15.6	5	14.3	12	16.4	10	16.4	4	15.4	11	14.9	0.15	(4)	.9975
No/no indication	227	84.4	30	85.7	61	83.6	51	83.6	22	84.6	63	85.1			

Note:

^a "2 or more" includes 2 or more of the 6 category offenses: Personal, Probation, Property, "Other," Status, and Drugs.

^b For each variable, the first chi square refers to the total; the second chi square refers to the interaction between the variable and type of offense. Chi square analyses involving cells of 5 or less should be interpreted with caution.

Table 18
Frequencies and Percents of Mental Health Variables by Type of Current Commitment Offense (N = 269)

VARIABLES	TYPE OF OFFENSE												Chi Square ^d		
	Total		Personal Only		Probation Only		Property Only		"Other" Only		2 or More ^a				
	N	C%	N	C%	N	C%	N	C%	N	C%	N	C%	χ^2	(df)	p
Axis I Information															
Conduct disorder only	12	4.5	0	0.0	3	4.1	4	6.6	2	7.7	3	4.1	350.38	(5)	<.0001
Substance use only	24	8.9	2	5.7	10	13.7	6	9.8	1	3.8	5	6.8	20.46	(20)	.4297
Comorbid (at least CD or Sx)	154	57.2	17	48.6	43	58.9	29	47.5	15	57.7	50	67.6			
All others w/diagnosis	25	9.3	4	11.4	5	6.8	6	9.8	3	11.5	7	9.5			
No diagnosis	2	0.7	1	2.9	1	1.4	0	0.0	0	0.0	0	0.0			
No psychiatric evaluation	52	19.3	11	31.4	11	15.1	16	26.2	5	19.2	9	12.2			
Past Psych. Hospitalization															
Yes	65	24.2	8	22.9	24	32.9	11	18.0	4	15.4	18	24.3	71.83	(1)	<.0001
No/no indication	204	75.8	27	77.1	49	67.1	50	82.0	22	84.6	56	75.7	5.40	(4)	.2484
School/Clinic History															
Yes	190	70.6	23	65.7	56	76.7	41	67.2	20	76.9	50	67.6	45.80	(1)	<.0001
No/no indication	79	29.4	12	34.3	17	23.3	20	32.8	6	23.1	24	32.4	2.88	(4)	.5774
Psychotropic Medications															
Yes	116	43.1	14	40.0	33	45.2	25	41.0	11	42.3	33	44.6	5.09	(1)	.0241
No/no indication	153	56.9	21	60.0	40	54.8	36	59.0	15	57.7	41	55.4	0.45	(4)	.9778
Suicidal Information															
Suicidal															
Yes	14	5.2	3	8.6	5	6.9	2	3.3	1	3.9	3	4.1	215.91	(1)	<.0001
No/no indication	255	94.8	32	91.4	68	93.2	59	96.7	25	96.2	71	96.0	1.96	(4)	.7433
Suicidal Ideation															
Yes	48	17.8	8	22.9	17	23.3	11	18.0	5	19.2	7	9.5	111.26	(1)	<.0001
No/no indication	221	82.2	27	77.1	56	76.7	50	82.0	21	80.8	67	90.5	5.66	(4)	.2260
Suicide Attempt															
Yes	53	19.7	8	22.9	17	23.3	13	21.3	2	7.7	13	17.6	98.77	(1)	<.0001
No/no indication	216	80.3	27	77.1	56	76.7	48	78.7	24	92.3	61	82.4	3.50	(4)	.4784
Homicidal															
Yes	20	7.4	2	5.7	4	5.5	4	6.6	1	3.9	9	12.2	194.95	(1)	<.0001
No/no indication	249	92.6	33	94.3	69	94.5	57	93.4	25	96.2	65	87.8	3.51	(4)	.4758
Psychotic															
Yes	2	0.7	0	0.0	0	0.0	0	0.0	0	0.0	2	2.7	261.06	(1)	<.0001
No/no indication	267	99.3	35	100.0	73	100.0	61	100.0	26	100.0	72	97.3	5.31	(4)	.2570

Note:

^a "2 or more" includes 2 or more of the 6 category offenses: Personal, Probation, Property, "Other," Status, and Drugs.

^b For each variable, the first chi square refers to the total; the second chi square refers to the interaction between the variable and type of offense. Chi square analyses involving cells of 5 or less should be interpreted with caution.

Table 19
Frequencies and Percents of Treatment Recommended by Type of Current Commitment Offense (N = 269)

VARIABLES	TYPE OF OFFENSE												Chi Square ^d		
	Total		Personal Only		Probation Only		Property Only		"Other" Only		2 or More ^a				
	N	C%	N	C%	N	C%	N	C%	N	C%	N	C%	χ^2	(df)	p
Treatment Recommended													135.62	(1)	<.0001
Yes	230	85.5	29	82.9	65	89.0	46	75.4	21	80.8	69	93.2	9.99	(4)	.0405
No/no indication	39	14.5	6	17.1	8	11.0	15	24.6	5	19.2	5	6.8			
Type of Treatment Recom.													0.09	(1)	.7605
Individual psychotherapy													2.07	(4)	.7231
Yes	137	50.9	16	45.7	37	50.7	28	45.9	15	57.7	41	55.4			
No/no indication	132	49.1	19	54.3	36	49.3	33	54.1	11	42.3	33	44.6			
Group psychotherapy													178.29	(1)	<.0001
Yes	25	9.3	4	11.4	7	9.6	4	6.6	4	15.4	6	8.1	2.01	(4)	.7346
No/no indication	244	90.7	31	88.6	66	90.4	57	93.4	22	84.6	68	91.9			
Family psychotherapy													47.47	(1)	<.0001
Yes	78	29.0	7	20.0	23	31.5	14	23.0	7	26.9	27	36.5	4.75	(4)	.3136
No/no indication	191	71.0	28	80.0	50	68.5	47	77.1	19	73.1	47	63.5			
Sub. abuse Tx program													14.75	(1)	.0001
Yes	166	61.7	16	45.7	46	63.0	33	54.1	17	65.4	54	73.0	9.46	(4)	.0506
No/no indication	103	38.3	19	54.3	27	37.0	28	45.9	9	34.6	20	27.0			
Anger management													71.83	(1)	<.0001
Yes	65	24.2	9	25.7	16	21.9	10	16.4	11	42.3	19	25.7	7.02	(4)	.1348
No/no indication	204	75.8	26	74.3	57	78.1	51	83.6	15	57.7	55	74.3			
Psychopharmacotherapy													42.56	(1)	<.0001
Yes	81	30.1	9	25.7	22	30.1	15	24.6	7	26.9	28	37.8	3.43	(4)	.4886
No/no indication	188	69.9	26	74.3	51	69.9	46	75.4	19	73.1	46	62.2			
Occup./rehab. Tx													249.37	(1)	<.0001
Yes	5	1.9	2	5.7	0	0.0	0	0.0	0	0.0	3	4.1	7.84	(4)	.0977
No/no indication	264	98.1	33	94.3	73	100.0	61	100.0	26	100.0	71	96.0			

Note:

^a "2 or more" includes 2 or more of the 6 category offenses: Personal, Probation, Property, "Other," Status, and Drugs.

^b For each variable, the first chi square refers to the total; the second chi square refers to the interaction between the variable and type of offense. Chi square analyses involving cells of 5 or less should be interpreted with caution.

Table 20
Frequencies and Percents of Legal Variables By Type of Current Commitment Offense (N = 269)

VARIABLES	TYPE OF OFFENSE												Chi Square ^b		
	Total		Personal Only		Probation Only		Property Only		"Other" Only		2 or More ^a				
	N (269)	C%	N (35)	C%	N (73)	C%	N (61)	C%	N (26)	C%	N (74)	C%	χ^2	(df)	p
Commitment Duration													105.3	(2)	<.0001
Majority	49	18.2	4	11.4	13	17.8	7	11.5	4	15.4	21	28.4	8.66	(8)	.3717
Minority	51	19.0	8	22.9	14	19.2	11	18.0	5	19.2	13	17.6			
Other	169	62.8	23	65.7	46	63.0	43	70.5	17	65.4	40	54.1			

Note:

^a "2 or more" includes 2 or more of the 6 category offenses: Personal, Probation, Property, "Other," Status, and Drugs.

^b For each variable, the first chi square refers to the total; the second chi square refers to the interaction between the variable and type of offense. Chi square analyses involving cells of 5 or less should be interpreted with caution.

Table 21
Frequencies and Percents of Legal Variables By Type of Current Commitment Offense

VARIABLES	TYPE OF OFFENSE												Chi Square ^b				
	Total		Personal Only		Probation Only		Property Only		"Other" Only		2 or More ^a						
	N	C%	N	C%	N	C%	N	C%	N	C%	N	C%	χ^2	(df)	p		
Disposition (N = 207)															1015.97	(6)	<.0001
Psych. hospital adoles	5	2.4	1	3.4	0	0.0	0	0.0	1	5.0	3	5.4	21.45	(24)	.6120		
Step down/specialty T:	1	0.5	0	0.0	1	1.8	0	0.0	0	0.0	0	0.0					
Non-hospital res. Tx	3	1.4	0	0.0	2	3.5	0	0.0	0	0.0	1	1.8					
Group home	5	2.4	1	3.4	2	3.5	0	0.0	1	5.0	1	1.8					
Adoptive/foster home	1	0.5	0	0.0	1	1.8	0	0.0	0	0.0	0	0.0					
Home to parent(s)	190	91.8	27	93.1	49	86.0	45	100.0	18	90.0	51	91.1					
Other (none in independent living)	2	1.0	0	0.0	2	3.5	0	0.0	0	0.0	0	0.0					
Legal Status at Discharge (N = 207)															651.14	(4)	<.0001
On furlough	2	1.0	0	0.0	1	1.8	0	0.0	1	5.0	0	0.0	10.94	(16)	.8130		
On parole/probation	13	6.3	1	3.7	5	8.8	3	6.5	2	10.0	2	3.5					
Court discharge	188	90.8	26	96.3	49	86.0	42	91.3	17	85.0	54	94.7					
Waivered to OCCC	1	0.5	0	0.0	1	1.8	0	0.0	0	0.0	0	0.0					
Other	3	1.4	0	0.0	1	1.8	1	2.2	0	0.0	1	1.8					

Note:

^a "2 or more" includes 2 or more of the 6 category offenses: Personal, Probation, Property, "Other," Status, and Drugs.

^b For each variable, the first chi square refers to the total; the second chi square refers to the interaction between the variable and type of offense. Chi square analyses involving cells of 5 or less should be interpreted with caution.

Table 22
Frequencies and Percents of Mental Health Diagnoses (N = 269)

MENTAL HEALTH DIAGNOSIS	All		Youths With a Psychiatric Evaluation	
	N (269)	Column %	N (217)	Column %
Any Diagnosis	215	79.9	215	99.1
Disruptive Behavior Disorder	157	58.4	157	72.4
Attention-deficit/hyperactivity disorder	21	7.8	21	9.7
Oppositional defiant disorder	13	4.8	13	6.0
Conduct disorder	135	50.2	135	62.2
Not otherwise specified	2	0.7	2	0.9
Affective Disorders (AD)	51	19.0	51	23.5
Mood disorder	50	18.6	50	23.0
Anxiety disorder	2	0.7	2	0.9
Other	38	14.1	38	17.5
Adjustment disorder	20	7.4	20	9.2
All other diagnoses (other than substance)	19	7.1	19	8.8
Substance Abuse ^a	166	61.7	166	76.5
Nicotine only ^b	0	0.0	0	0.0
Alcohol only ^b	7	2.6	7	3.2
Marijuana only ^b	24	8.9	24	11.1
Other substances only ^b	5	1.9	5	2.3
Poly substance ^b	130	48.3	130	59.9
No Diagnosis	2	0.7	2	0.9
No Psychiatric Evaluation	52	19.3	na	na

^a Any substance abuse.

^b Could include non-substance abuse diagnoses. 53

Table 23
Means, Standard Deviations, and N Sizes of Demographic Variables By Mental Health Diagnoses (N = 269)

VARIABLES	MENTAL HEALTH DIAGNOSIS														Analysis of Variance (ANOVA)				
	Total		Conduct Disorder Only		Substance Abuse Only		Comorbid (at least CD or Sub.)		All Other Diagnoses		No Psychiatric Evaluation								
	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	F	(df)	p	R ²	N-K Diff. ^a		
Age (in years) (at 1st commitment) (07/01/99 to 06/31/00)	16.8 (1.24)	269	16.39 (1.18)	12	17.52 (0.67)	24	16.81 (1.13)	154	16.46 (1.24)	25	16.48 (0.73)	2	16.81 (1.62)	52	2.34	(5, 263)	.0419	.043	ns
Number of Admissions (07/01/99 to 06/31/00)	1.16 (0.42)	269	1.08 (0.29)	12	1.25 (0.53)	24	1.18 (0.45)	154	1.16 (0.47)	25	1.00 (0.00)	2	1.06 (0.24)	52	1.05	(5, 263)	.3879	.020	ns

Note:
^a Newman-Keuls subsequent tests; ns = not significant.

Table 24
Frequencies and Percents of Demographic Variables By Mental Health Diagnoses (N = 269)

VARIABLES	MENTAL HEALTH DIAGNOSIS														Chi Square ^a		
	Total		Conduct Disorder Only		Substance Abuse Only		Comorbid (at least CD or Sub.)		All Other Diagnoses		No Diagnosis		No Psychiatric Evaluation				
	N	C%	N	C%	N	C%	N	C%	N	C%	N	C%	N	C%	χ^2	(df)	p
Gender																	
Male	226	84.0	12	100.0	23	95.8	127	82.5	21	84.0	2	100.0	41	78.9	6.47	(5)	.2632
Female	43	16.0	0	0.0	1	4.2	27	17.5	4	16.0	0	0.0	11	21.2			
Birth Place																	
Hawai'i	186	69.1	9	75.0	19	79.2	103	66.9	18	72.0	1	50.0	36	69.2	13.87	(15)	.5356
Mainland/U.S. territory	51	19.0	2	16.7	3	12.5	33	21.4	4	16.0	1	50.0	8	15.4			
International	19	7.1	0	0.0	2	8.3	12	7.8	3	12.0	0	0.0	2	3.8			
No indication	13	4.8	1	8.3	0	0.0	6	3.9	0	0.0	0	0.0	6	11.5			
Ethnicity (N = 268)																	
Caucasian	20	7.5	0	0.0	3	12.5	10	6.5	3	12.0	0	0.0	4	7.8	16.54	(20)	.6825
Filipino	18	6.7	0	0.0	2	8.3	10	6.5	0	0.0	0	0.0	6	11.8			
Hawaiian/part-Hawaiian	148	55.2	8	66.7	15	62.5	87	56.5	14	56.0	2	100.0	22	43.1			
Mixed non-Hawaiian	63	23.5	4	33.3	4	16.7	35	22.7	7	28.0	0	0.0	13	25.5			
Other non-mixed	19	7.1	0	0.0	0	0.0	12	7.8	1	4.0	0	0.0	6	11.8			

Note:

^a Chi square refers to the interaction between the variable and mental health diagnosis.
 Chi square analyses involving cells of 5 or less should be interpreted with caution.

Table 25
Means, Standard Deviations, and N Sizes of Demographic Variables By Mental Health Diagnoses (N = 215)

VARIABLES	MENTAL HEALTH DIAGNOSIS										Analysis of Variance (ANOVA)				
	Total		Conduct Disorder Only (G1)		Substance Abuse Only (G2)		Comorbid (at least CD or Sub.) (G3)		All Other Diagnoses (G4)		F	(df)	p	R ²	N-K Differences ^a
	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N					
Age (in years) (at 1st commitment) (07/01/99 to 06/31/00)	16.83 (1.13)	215	16.39 (1.18)	12	17.52 (0.67)	24	16.81 (1.13)	154	16.46 (1.24)	25	4.71	(3, 211)	.0033	.063	G2 > G1, G3, G4
Number of Admissions (07/01/99 to 06/31/00)	1.18 (0.45)	215	1.08 (0.29)	12	1.25 (0.53)	24	1.18 (0.45)	154	1.16 (0.47)	25	0.39	(3, 211)	.7631	.005	ns

Note:

^a Newman-Keuls subsequent tests; ns = not significant.

Table 26
Frequencies and Percents of Demographic Variables By Mental Health Diagnoses (N = 215)

VARIABLES	MENTAL HEALTH DIAGNOSIS										Chi Square ^a		p
	Total		Conduct Disorder Only		Substance Abuse Only		Comorbid (at least CD or Sub.)		All Other Diagnoses				
	N (215)	C%	N (12)	C%	N (24)	C%	N (154)	C%	N (25)	C%	χ^2	(df)	
Gender													
Male	183	85.1	12	100.0	23	95.8	127	82.5	21	84.0	5.15	(3)	.1610
Female	32	14.9	0	0.0	1	4.2	27	17.5	4	16.0			
Birth Place													
Hawai'i	149	69.3	9	75.0	19	79.2	103	66.9	18	72.0	5.88	(9)	.7522
Mainland/U.S. territory	42	19.5	2	16.7	3	12.5	33	21.4	4	16.0			
International	17	7.9	0	0.0	2	8.3	12	7.8	3	12.0			
No indication	7	3.3	1	8.3	0	0.0	6	3.9	0	0.0			
Ethnicity													
Caucasian	16	7.4	0	0.0	3	12.5	10	6.5	3	12.0	9.90	(12)	.6251
Filipino	12	5.6	0	0.0	2	8.3	10	6.5	0	0.0			
Hawaiian/part-Hawaiian	124	57.7	8	66.7	15	62.5	87	56.5	14	56.0			
Mixed non-Hawaiian	50	23.3	4	33.3	4	16.7	35	22.7	7	28.0			
Other non-mixed	13	6.0	0	0.0	0	0.0	12	7.8	1	4.0			

Note:

^a Chi square refers to the interaction between the variable and mental health diagnosis.
 Chi square analyses involving cells of 5 or less should be interpreted with caution.

Table 27
Means, Standard Deviations, and N Sizes of Family Variables By Mental Health Diagnoses (N = 215)

VARIABLES	MENTAL HEALTH DIAGNOSIS										Analysis of Variance (ANOVA)				
	Total		Conduct Disorder Only (G1)		Substance Abuse Only (G2)		Comorbid (at least CD or Sub.) (G3)		All Other Diagnoses (G4)		F	(df)	p	R ²	N-K Differences ^a
	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N					
Number of Siblings															
Biological siblings	1.91 (1.47)	137	2.50 (1.87)	6	1.85 (1.63)	13	1.88 (1.48)	107	2.00 (1.10)	11	0.35(3, 133)	.7864	.008		ns
Half brothers	1.73 (1.48)	52	1.00 (0.00)	1	1.50 (0.58)	4	1.65 (1.53)	40	2.43 (1.62)	7	0.66 (3, 48)	.5835	.039		ns
Half sisters	1.50 (0.89)	38	2.00 (0.00)	1	1.33 (0.58)	3	1.52 (1.01)	27	1.43 (0.53)	7	0.15 (3, 34)	.9308	.013		ns
Step brothers	1.83 (0.98)	6	na na	0	3.00 (0.00)	1	1.25 (0.50)	4	3.00 (0.00)	1	8.17 (2, 3)	.0611	.844		ns
Step sisters	2.00 (0.89)	6	na na	0	1.00 (0.00)	1	2.20 (0.84)	5	na na	0	1.71 (1, 4)	.2606	.300		ns

Note:

^a Newman-Keuls subsequent tests; ns = not significant.

Table 28
Frequencies and Percents of Family Variables By Mental Health Diagnoses (N = 215)

VARIABLES	MENTAL HEALTH DIAGNOSIS										Chi Square ^a	p
	Total		Conduct Disorder Only		Substance Abuse Only		Comorbid (at least CD or Sub.)		All Other Diagnoses			
	N	C%	N	C%	N	C%	N	C%	N	C%		
Residence Prior to HYCF (N = 202)												
O'ahu	114	56.4	7	77.8	11	45.8	84	57.1	12	54.5	8.42 (15)	.9057
Island of Hawai'i	23	11.4	1	11.1	5	20.8	15	10.2	2	9.1		
Kaua'i	32	15.8	0	0.0	3	12.5	24	16.3	5	22.7		
Maui	23	11.4	1	11.1	3	12.5	16	10.9	3	13.6		
Moloka'i	1	0.5	0	0.0	0	0.0	1	0.7	0	0.0		
Other/undetermined (none from Lana'i or Ni'ihau)	9	4.5	0	0.0	2	8.3	7	4.8	0	0.0		
Birth Order (N = 129)												
First born	29	22.5	3	50.0	2	16.7	22	22.0	2	18.2	6.37 (9)	.7021
Middle	37	28.7	2	33.3	3	25.0	27	27.0	5	45.5		
Last	44	34.1	0	0.0	5	41.7	36	36.0	3	27.3		
Only child	19	14.7	1	16.7	2	16.7	15	15.0	1	9.1		

Note:

^a Chi square refers to the interaction between the variable and mental health diagnosis.
 Chi square analyses involving cells of 5 or less should be interpreted with caution.

Table 29
Frequencies and Percents of Family Variables By Mental Health Diagnoses (N = 215)

VARIABLES	MENTAL HEALTH DIAGNOSIS										Chi Square ^a	p																																																																																																																																																														
	Total		Conduct Disorder Only		Substance Abuse Only		Comorbid (at least CD or Sub.)		All Other Diagnoses																																																																																																																																																																	
	N	C%	N	C%	N	C%	N	C%	N	C%																																																																																																																																																																
Raised Mostly By Biological father Yes No/no indication Biological mother Yes No/no indication Maternal grandparent(s) Yes No/no indication Paternal grandparent(s) Yes No/no indication Relative(s) Yes No/no indication Older sibling(s) Yes No/no indication Adoptive parent(s) Yes No/no indication Foster parent(s) Yes No/no indication Other Yes No/no indication	87	40.5	3	25.0	13	54.2	66	42.9	5	20.0	128	59.5	9	75.0	11	45.8	88	57.1	20	80.0	45	20.9	3	25.0	5	20.8	29	18.8	8	32.0	25	11.6	2	16.7	1	4.2	18	11.7	4	16.0	190	88.4	10	83.3	23	95.8	136	88.3	21	84.0	8	3.7	0	0.0	1	4.2	6	3.9	1	4.0	207	96.3	12	100.0	23	95.8	148	96.1	24	96.0	34	15.8	1	8.3	1	4.2	25	16.2	7	28.0	181	84.2	11	91.7	23	95.8	129	83.8	18	72.0	5	2.3	0	0.0	0	0.0	3	2.0	2	8.0	210	97.7	12	100.0	24	100.0	151	98.1	23	92.0	9	4.2	1	8.3	1	4.2	5	3.3	2	8.0	206	95.8	11	91.7	23	95.8	149	96.8	23	92.0	14	6.5	1	8.3	1	4.2	12	7.8	0	0.0	201	93.5	11	91.7	23	95.8	142	92.2	25	100.0	46	21.4	1	8.3	6	25.0	33	21.4	6	24.0	169	78.6	11	91.7	18	75.0	121	78.6	19	76.0

Note:

^a Chi square refers to the interaction between the variable and mental health diagnosis.
 Chi square analyses involving cells of 5 or less should be interpreted with caution.

Table 30
Frequencies and Percents of Family Variables By Mental Health Diagnoses (N = 215)

VARIABLES	MENTAL HEALTH DIAGNOSIS										Chi Square ^a		p
	Total		Conduct Disorder Only		Substance Abuse Only		Comorbid (at least CD or Sub.)		All Other Diagnoses				
	N (215)	C%	N (12)	C%	N (24)	C%	N (154)	C%	N (25)	C%	χ^2	(df)	
Family Status													
Intact biological parents													
Yes	23	10.7	1	8.3	4	16.7	18	11.7	0	0.0	4.12	(3)	.2490
No/no indication	192	89.3	11	91.7	20	83.3	136	88.3	25	100.0			
Single parent													
Yes	98	45.6	5	41.7	9	37.5	73	47.4	11	44.0	0.94	(3)	.8165
No/no indication	117	54.4	7	58.3	15	62.5	81	52.6	14	56.0			
Blended family													
Yes	45	20.9	3	25.0	9	37.5	29	18.8	4	16.0	4.88	(3)	.1809
No/no indication	170	79.1	9	75.0	12	62.5	125	81.2	21	84.0			
Lives with relatives													
Yes	35	16.3	1	8.3	3	12.5	25	16.2	6	24.0	1.90	(3)	.5932
No/no indication	180	83.7	11	91.7	21	87.5	129	83.8	19	76.0			
Adoptive home													
Yes	4	1.9	1	8.3	0	0.0	2	1.3	1	4.0	4.10	(3)	.2507
No/no indication	211	98.1	11	91.7	24	100.0	152	98.7	24	96.0			
Foster home													
Yes	6	2.8	0	0.0	0	0.0	6	3.9	0	0.0	2.44	(3)	.4853
No/no indication	209	97.2	12	100.0	24	100.0	148	96.1	25	100.0			
Temporary placement													
Yes	3	1.4	0	0.0	0	0.0	1	0.7	2	8.0	9.06	(3)	.0285
No/no indication	212	98.6	12	100.0	24	100.0	153	99.4	23	92.0			
Homeless													
Yes	2	0.9	0	0.0	0	0.0	1	0.7	1	4.0	3.03	(3)	.3876
No/no indication	213	99.1	12	100.0	24	100.0	153	99.4	24	96.0			
Other													
Yes	36	16.7	0	0.0	4	16.7	28	18.2	4	16.0	2.65	(3)	.4485
No/no indication	179	83.3	12	100.0	20	83.3	126	81.8	21	84.0			

Note:

^a Chi square refers to the interaction between the variable and mental health diagnosis.
 Chi square analyses involving cells of 5 or less should be interpreted with caution.

Table 31
Frequencies and Percents of Family Variables By Mental Health Diagnoses (N = 215)

VARIABLES	MENTAL HEALTH DIAGNOSIS										Chi Square ^a	p
	Total		Conduct Disorder Only		Substance Abuse Only		Comorbid (at least CD or Sub.)		All Other Diagnoses			
	N	C%	N	C%	N	C%	N	C%	N	C%		
Employment Status of Primary Family Supporter												
Unemployed												
Yes	13	6.1	3	25.0	1	4.2	9	5.8	0	0.0	9.36 (3)	.0249
No/no indication	202	94.0	9	75.0	23	95.8	145	94.2	25	100.0		
Military, active duty												
Yes	4	1.9	0	0.0	2	8.3	2	1.3	0	0.0	6.47 (3)	.0907
No/no indication	211	98.1	12	100.0	22	91.7	152	98.7	25	100.0		
Physical labor												
Yes	5	2.3	1	8.3	0	0.0	4	2.6	0	0.0	3.12 (3)	.3730
No/no indication	210	97.7	11	91.7	24	100.0	150	97.4	25	100.0		
Clerical												
Yes	1	0.5	0	0.0	1	4.2	0	0.0	0	0.0	8.00 (3)	.0461
No/no indication	214	99.5	12	100.0	23	95.8	154	100.0	25	100.0		
Custodial/housekeeping												
Yes	3	1.4	0	0.0	0	0.0	3	2.0	0	0.0	1.21 (3)	.7518
No/no indication	212	98.6	12	100.0	24	100.0	151	98.1	25	100.0		
Supervisory/managerial												
Yes	2	0.9	0	0.0	1	4.2	0	0.0	1	4.0	6.84 (3)	.0771
No/no indication	213	99.1	12	100.0	23	95.8	154	100.0	24	96.0		
Proprietor												
Yes	5	2.3	0	0.0	0	0.0	5	3.3	0	0.0	2.03 (3)	.5667
No/no indication	210	97.7	12	100.0	24	100.0	149	96.8	25	100.0		
Educator (college, univ.)												
Yes	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	na	na
No/no indication	215	100.0	12	100.0	24	100.0	154	100.0	25	100.0		
Executive												
Yes	1	0.5	0	4.0	0	0.0	1	0.7	0	0.0	0.40 (3)	.9407
No/no indication	214	99.5	12	96.0	24	100.0	153	99.4	25	100.0		
Other												
Yes	76	35.4	3	25.0	11	45.8	58	37.7	4	16.0	6.17 (3)	.1035
No/no indication	139	64.7	9	75.0	13	54.2	96	62.3	21	84.0		
Teenage Parent												
Yes	21	9.8	1	8.3	1	4.2	17	11.0	2	8.0	1.25 (3)	.7402
No/no indication	194	90.2	11	91.7	23	95.8	137	89.0	23	92.0		
Family Psychiatric History												
Yes	97	45.1	7	58.3	12	50.0	67	43.5	11	44.0	1.25 (3)	.7407
No/no indication	118	54.9	5	41.7	12	50.0	87	56.5	14	56.0		
Family History of Incarceration												
Yes	48	22.3	2	16.7	5	20.8	30	19.5	11	44.0	7.74 (3)	.0516
No/no indication	167	77.7	10	83.3	19	79.2	124	80.5	14	56.0		

Note:

^a Chi square refers to the interaction between the variable and mental health diagnosis.

Table 32
Means, Standard Deviations, and N Sizes of Child Development/Health Variables By Mental Health Diagnoses

VARIABLES	MENTAL HEALTH DIAGNOSIS										Analysis of Variance (ANOVA)				
	Total		Conduct Disorder Only (G1)		Substance Abuse Only (G2)		Comorbid (at least CD or Sub.) (G3)		All Other Diagnoses (G4)						
	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	F	(df)	p	R ²	N-K Differences ^a
Birth Weight (in ounces)	87.69 (30.73)	163	92.00 (40.78)	8	83.35 (21.12)	20	89.81 (30.12)	117	76.86 (37.98)	18	1.12	(3, 159)	.3436	.021	ns

Note:

^a Newman-Keuls subsequent tests; ns = not significant.

Table 33
Frequencies and Percents of Child Development/Health Variables By Mental Health Diagnoses (N = 215)

VARIABLES	MENTAL HEALTH DIAGNOSIS										Chi Square ^a		p
	Total		Conduct Disorder Only		Substance Abuse Only		Comorbid (at least CD or Sub.)		All Other Diagnoses				
	N	C%	N	C%	N	C%	N	C%	N	C%	χ^2	(df)	
Prenatal Complications													
Yes	24	11.2	1	8.3	0	0.0	20	13.0	3	12.0	3.65 (3)		.3022
No/no indication	191	88.8	11	91.7	24	100.0	134	87.0	22	88.0			
Perinatal/Delivery Complications													
Yes	15	7.0	1	8.3	1	4.2	12	7.8	1	4.0	0.83 (3)		.8434
No/no indication	200	93.0	11	91.7	23	95.8	142	92.2	24	96.0			

Note:

^a Chi square refers to the interaction between the variable and mental health diagnosis.
 Chi square analyses involving cells of 5 or less should be interpreted with caution.

Table 34
Frequencies and Percents of Child Development/Health Variables By Mental Health Diagnoses (N = 215)
 MENTAL HEALTH DIAGNOSIS

VARIABLES	Total		Conduct Disorder Only		Substance Abuse Only		Comorbid (at least CD or Sub.)		All Other Diagnoses		Chi Square ^a		p
	N (215)	C%	N (12)	C%	N (24)	C%	N (154)	C%	N (25)	C%	χ^2	(df)	
Perinatal Status													
Born out of wedlock													
Yes	37	17.2	4	33.3	4	16.7	27	17.5	2	8.0	3.69 (3)		.2964
No/no indication	178	82.8	8	66.7	20	83.3	127	82.5	23	92.0			
Never seen father													
Yes	12	5.6	0	0.0	0	0.0	12	7.8	0	0.0	5.03 (3)		.1693
No/no indication	203	94.4	12	100.0	24	100.0	142	92.2	25	100.0			
Never seen mother													
Yes	2	0.9	0	0.0	0	0.0	2	1.3	0	0.0	0.80 (3)		.8496
No/no indication	213	99.1	12	100.0	24	100.0	152	98.7	25	100.0			
Carries father's name													
Yes	93	43.3	5	41.7	9	37.5	69	44.8	10	40.0	0.59 (3)		.8976
No/no indication	122	56.7	7	58.3	15	62.5	85	55.2	15	60.0			
Carries mother's name													
Yes	28	13.0	4	33.3	0	0.0	19	12.3	5	20.0	9.10 (3)		.0280
No/no indication	187	87.0	8	66.7	24	100.0	135	87.7	20	80.0			
Other													
Yes	9	4.2	0	0.0	2	8.3	6	3.9	1	4.0	1.59 (3)		.6621
No/no indication	206	95.8	12	100.0	22	91.7	148	96.1	24	96.0			
Premature Delivery													
Yes	7	3.3	1	8.3	0	0.0	3	2.0	3	12.0	8.69 (3)		.0336
No/no indication	208	96.7	11	91.7	24	100.0	151	98.1	22	88.0			
Accidental Injuries													
Yes	107	49.8	5	41.7	11	45.8	82	53.3	9	36.0	3.10 (3)		.3758
No/no indication	108	50.2	7	58.3	13	54.2	72	46.8	16	64.0			
Loss of Consciousness													
Yes	29	13.5	0	12.0	4	16.7	24	15.6	1	4.0	4.59 (3)		.2046
No/no indication	186	86.5	12	88.0	20	83.3	130	84.4	24	96.0			
Physical Deformity													
Yes	4	1.9	0	0.0	0	0.0	2	1.3	2	8.0	6.11 (3)		.1064
No/no indication	211	98.1	12	100.0	24	100.0	152	98.7	23	92.0			
Deformity													
Yes	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	na na		na
No/no indication	215	100.0	12	100.0	24	100.0	154	100.0	25	100.0			
Physical Handicap(s)													
Yes	5	2.3	0	0.0	1	4.2	4	2.6	0	0.0	1.29 (3)		.7317
No/no indication	210	97.7	12	100.0	23	95.8	150	97.4	25	100.0			
Past Significant Illness													
Yes	45	20.9	1	8.3	6	25.0	32	20.8	6	24.0	1.54 (3)		.6742
No/no indication	170	79.1	11	91.7	18	75.0	122	79.2	19	76.0			
Surgical Cond. & Operation													
Yes	32	14.9	1	8.3	5	20.8	24	15.6	2	8.0	2.07 (3)		.5576
No/no indication	183	85.1	11	91.7	19	79.2	130	84.4	23	92.0			

Note:

^a Chi square refers to the interaction between the variable and mental health diagnosis.
 Chi square analyses involving cells of 5 or less should be interpreted with caution.

Table 35
Frequencies and Percents of Special Education By Mental Health Diagnoses (N = 215)

VARIABLES	MENTAL HEALTH DIAGNOSIS										Chi Square ^a		p
	Total		Conduct Disorder Only		Substance Abuse Only		Comorbid (at least CD or Sub.)		All Other Diagnoses				
	N (215)	C%	N (12)	C%	N (24)	C%	N (154)	C%	N (25)	C%	χ^2	(df)	
Special Education													
Yes	51	23.7	2	16.7	4	16.7	39	25.3	6	24.0	1.21	(3)	.7506
No/no indication	164	76.3	10	83.3	20	83.3	115	74.7	19	76.0			

Note:

^a Chi square refers to the interaction between the variable and mental health diagnosis.
 Chi square analyses involving cells of 5 or less should be interpreted with caution.

Table 36
Frequencies and Percents of Violence Variables By Mental Health Diagnoses (N = 215)

VARIABLES	MENTAL HEALTH DIAGNOSIS										Chi Square ^a	p
	Total		Conduct Disorder Only		Substance Abuse Only		Comorbid (at least CD or Sub.)		All Other Diagnoses			
	N	C%	N	C%	N	C%	N	C%	N	C%		
Violence to Self & Others												
Self-victim												
Yes	123	57.2	9	75.0	8	33.3	95	61.7	11	44.0	10.18 (3)	.0171
No/no indication	92	42.8	3	25.0	16	66.7	59	38.3	14	56.0		
Self-perpetrator												
Yes	106	49.3	5	41.7	5	20.8	86	55.8	10	40.0	11.56 (3)	.0090
No/no indication	109	50.7	7	58.3	19	79.2	68	44.2	15	60.0		
Other (non-self)												
Yes	50	23.3	3	25.0	7	29.2	35	22.7	5	20.0	0.66 (3)	.8819
No/no indication	165	76.7	9	75.0	17	70.8	119	77.3	20	80.0		
Unspecified violence												
Yes	90	41.9	5	41.7	8	33.3	65	42.2	12	48.0	1.11 (3)	.7742
No/no indication	125	58.1	7	58.3	16	66.7	89	57.8	13	52.0		
Any violence												
Yes	179	83.3	9	75.0	17	70.8	134	87.0	19	76.0	5.75 (3)	.1246
No/no indication	36	16.7	3	25.0	7	29.2	20	13.0	6	24.0		

Note:

^a Chi square refers to the interaction between the variable and mental health diagnosis.
 Chi square analyses involving cells of 5 or less should be interpreted with caution.

Table 37
Frequencies and Percents of Violence Variables By Mental Health Diagnoses (N = 215)

VARIABLES	MENTAL HEALTH DIAGNOSIS										Chi Square ^a	<i>p</i>	
	Total		Conduct Disorder Only		Substance Abuse Only		Comorbid (at least CD or Sub.)		All Other Diagnoses				
	<i>N</i> (215)	C%	<i>N</i> (12)	C%	<i>N</i> (24)	C%	<i>N</i> (154)	C%	<i>N</i> (25)	C%			
Gang Involvement													
Yes	43	20.0	2	16.7	1	4.2	37	24.0	3	12.0	6.40 (3)	.0935	
No/no indication	172	80.0	10	83.3	23	95.8	117	76.0	22	88.0			

Note:

^a Chi square refers to the interaction between the variable and mental health diagnosis.
 Chi square analyses involving cells of 5 or less should be interpreted with caution.

Table 38
Means, Standard Deviations, and N Sizes of Substance Use Variables By Mental Health Diagnoses (N = 215)

VARIABLES	MENTAL HEALTH DIAGNOSIS										Analysis of Variance (ANOVA)				
	Total		Conduct Disorder Only (G1)		Substance Abuse Only (G2)		Comorbid (at least CD or Sub.) (G3)		All Other Diagnoses (G4)		F	(df)	p	R ²	N-K Differences ^a
	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N	Mean (SD)	N					
Age of Substance Use															
Cigarettes	11.81 (2.10)	75	13.50 (0.71)	2	13.00 (3.16)	5	11.67 (2.04)	66	11.75 (1.77)	2	1.06	(3, 71)	.3723	.043	ns
Alcohol	12.39 (2.42)	140	12.67 (2.08)	3	12.68 (1.69)	17	12.18 (2.56)	110	14.10 (1.17)	10	2.07	(3, 136)	.1073	.044	ns
Marijuana	12.16 (2.06)	166	12.44 (1.68)	8	12.58 (2.09)	18	12.05 (2.10)	129	12.55 (1.81)	11	0.55	(3, 162)	.6508	.010	ns
Cocaine	14.00 (1.85)	25	na na	0	16.00 (0.00)	1	13.91 (1.93)	22	14.00 (0.00)	2	0.59	(2, 22)	.5623	.051	ns
Methamphetamine	14.10 (1.97)	88	15.50 (2.12)	2	15.40 (1.07)	10	14.03 (1.69)	73	10.33 (5.03)	3	6.55	(3, 84)	.0005	.190	G1, G2, G3 > G4
Paints/glue	13.13 (0.95)	8	na na	0	na na	0	13.13 (0.95)	8	na na	0	na	na	na	na	na
Mushroom	13.60 (2.41)	15	na na	0	13.50 (3.54)	2	13.62 (2.40)	13	na na	0	0.00	(1, 13)	.9526	.000	ns
LSD	12.67 (2.13)	15	na na	0	11.00 (0.00)	1	12.79 (2.15)	14	na na	0	0.64	(1, 13)	.4377	.047	ns

Note:

^a Newman-Keuls subsequent tests; ns = not significant.

Table 39
Frequencies and Percents of Substance Use Variables By Mental Health Diagnoses (N = 215)

VARIABLES	MENTAL HEALTH DIAGNOSIS										Chi Square ^a	<i>p</i>	
	Total		Conduct Disorder Only		Substance Abuse Only		Comorbid (at least CD or Sub.)		All Other Diagnoses				
	<i>N</i>	C%	<i>N</i>	C%	<i>N</i>	C%	<i>N</i>	C%	<i>N</i>	C%			
Substance Use History													
Yes	212	98.6	11	91.7	24	100.0	152	98.7	25	100.0	4.90	(3)	.1791
No/no indication	3	1.4	1	8.3	0	0.0	2	1.3	0	0.0			
Specific Substance Use													
Cigarette use													
Yes	157	73.0	8	66.7	18	75.0	116	75.3	15	60.0	2.86	(3)	.4137
No/no indication	58	27.0	4	33.3	6	25.0	38	24.7	10	40.0			
Alcohol use													
Yes	192	89.3	7	58.3	21	87.5	146	94.8	18	72.0	24.84	(3)	<.0001
No/no indication	23	10.7	5	41.7	3	12.5	8	5.2	7	28.0			
Marijuana use													
Yes	202	94.0	11	91.7	24	100.0	147	95.5	20	80.0	10.83	(3)	.0127
No/no indication	13	6.1	1	8.3	0	0.0	7	4.6	5	20.0			
Cocaine use													
Yes	58	27.0	0	0.0	10	41.7	44	28.6	4	16.0	8.79	(3)	.0322
No/no indication	157	73.0	12	100.0	14	58.3	110	71.4	21	84.0			
Methamphetamine use													
Yes	128	59.5	2	16.7	17	70.8	99	64.3	10	40.0	15.83	(3)	.0012
No/no indication	87	40.5	10	83.3	7	29.2	55	35.7	15	60.0			
Paints/glue use													
Yes	24	11.2	0	0.0	2	8.3	19	12.3	3	12.0	1.93	(3)	.5863
No/no indication	191	88.8	12	100.0	22	91.7	135	87.7	22	88.0			
Mushroom use													
Yes	48	22.3	1	8.3	10	41.7	35	22.7	2	8.0	9.50	(3)	.0233
No/no indication	167	77.7	11	91.7	14	58.3	119	77.3	23	92.0			
LSD use													
Yes	41	19.1	0	0.0	5	20.8	31	20.1	5	20.0	3.00	(3)	.3913
No/no indication	174	80.9	12	100.0	19	79.2	123	79.9	20	80.0			

Note:

^a Chi square refers to the interaction between the variable and mental health diagnosis.
 Chi square analyses involving cells of 5 or less should be interpreted with caution.

Table 40
Frequencies and Percents of Mental Health Variables By Mental Health Diagnoses (N = 215)

VARIABLES	MENTAL HEALTH DIAGNOSIS										Chi Square ^a		p
	Total		Conduct Disorder Only		Substance Abuse Only		Comorbid (at least CD or Sub.)		All Other Diagnoses		χ^2	(df)	
	N	C%	N	C%	N	C%	N	C%	N	C%			
Past Psych. Hospitalization													
Yes	65	30.2	4	33.3	4	16.7	51	33.1	6	24.0	3.22	(3)	.3594
No/no indication	150	69.8	8	66.7	20	83.3	103	66.9	19	76.0			
School/Clinic History													
Yes	168	78.1	9	75.0	18	75.0	122	79.2	19	76.0	0.38	(3)	.9443
No/no indication	47	21.9	3	25.0	6	25.0	32	20.8	6	24.0			
Psychotropic Medications													
Yes	108	50.2	5	41.7	5	20.8	90	58.4	8	32.0	16.13	(3)	.0011
No/no indication	107	49.8	7	58.3	19	79.2	64	41.6	17	68.0			
Suicidal Information													
Suicidal													
Yes	13	6.1	2	16.7	0	0.0	10	6.5	1	4.0	4.17	(3)	.2441
No/no indication	202	94.0	10	83.3	24	100.0	144	93.5	24	96.0			
Suicidal Ideation													
Yes	43	20.0	1	8.3	3	12.5	31	20.1	8	32.0	4.12	(3)	.2492
No/no indication	172	80.0	11	91.7	21	87.5	123	79.9	17	68.0			
Suicide Attempt													
Yes	48	22.3	2	16.7	3	12.5	36	23.4	7	28.0	2.12	(3)	.5479
No/no indication	167	77.7	10	83.3	21	87.5	118	76.6	18	72.0			
Homicidal													
Yes	20	9.3	3	25.0	0	0.0	16	10.4	1	4.0	7.02	(3)	.0714
No/no indication	195	90.7	9	75.0	24	100.0	138	89.6	24	96.0			
Psychotic													
Yes	2	0.9	0	0.0	0	0.0	2	1.3	0	0.0	0.80	(3)	.8496
No/no indication	213	99.1	12	100.0	24	100.0	152	98.7	25	100.0			

Note:

^a Chi square refers to the interaction between the variable and mental health diagnosis.
 Chi square analyses involving cells of 5 or less should be interpreted with caution.

Table 41
Frequencies and Percents of Treatment Variables By Mental Health Diagnoses (N = 215)

VARIABLES	MENTAL HEALTH DIAGNOSIS										Chi Square ^a	p
	Total		Conduct Disorder Only		Substance Abuse Only		Comorbid (at least CD or Sub.)		All Other Diagnoses			
	N	C%	N	C%	N	C%	N	C%	N	C%		
Treatment Recommended												
Yes	209	97.2	12	100.0	23	95.8	150	97.4	24	96.0	0.67 (3)	.8807
No/no indication	6	2.8	0	0.0	1	4.2	4	2.6	1	4.0		
Type of Treatment Recom.												
Individual psychotherapy												
Yes	132	61.4	7	58.3	9	37.5	98	63.6	18	72.0	7.34 (3)	.0618
No/no indication	83	38.6	5	41.7	15	62.5	56	36.4	7	28.0		
Group psychotherapy												
Yes	25	11.6	1	8.3	0	0.0	18	11.7	6	24.0	7.01 (3)	.0716
No/no indication	190	88.4	11	91.7	24	100.0	136	88.3	19	76.0		
Family Psychotherapy												
Yes	77	35.8	7	58.3	1	4.2	61	39.6	8	32.0	14.23 (3)	.0026
No/no indication	138	64.2	5	41.7	23	95.8	93	60.4	17	68.0		
Sub. abuse Tx Program												
Yes	161	74.9	6	50.0	23	95.8	123	79.9	9	36.0	31.68 (3)	<.0001
No/no indication	54	25.1	6	50.0	1	4.2	31	20.1	16	64.0		
Anger management												
Yes	62	28.8	4	33.3	4	16.7	50	32.5	4	16.0	4.85 (3)	.1833
No/no indication	153	71.2	8	66.7	20	83.3	104	67.5	21	84.0		
Psychopharmacotherapy												
Yes	76	35.4	2	16.7	3	12.5	68	44.2	3	12.0	18.51 (3)	.0003
No/no indication	139	64.7	10	83.3	21	87.5	86	55.8	22	88.0		
Occup./rehab. Tx												
Yes	5	2.3	0	0.0	0	0.0	4	2.6	1	4.0	1.22 (3)	.7492
No/no indication	210	97.7	12	100.0	24	100.0	150	97.4	24	96.0		

Note:

^a Chi square refers to the interaction between the variable and mental health diagnosis. Chi square analyses involving cells of 5 or less should be interpreted with caution.

