An Exploration of Selected Mental Health and Legal Variables in a Rural Juvenile Delinquent Population

by

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CHAPTER 1

INTRODUCTION

Although juvenile delinquency has traditionally been conceptualized as a legal/social problem, there is growing recognition of the multidimensional nature of this extensive social phenomenon. Recent juvenile delinquency research in the areas of developmental disorders, neurological dysfunction, conduct disorder and maladaptive family patterns, provides support for attempts to expand the previous unidimensional perspective of juvenile delinquency as a maladaptive social or environmental response. The recent research suggests a need for mental health expertise in the development of conceptual frameworks to understand juvenile delinquency. Only by establishing the most appropriate models to conceptualize and discretely define the problems of juvenile delinquency, can development of effective intervention begin. This research extends the current knowledge of the relationship between significant mental health variables and juvenile delinquency. It is also intended to further bridge the gap between the mental health system and the juvenile justice system.

A increasing incidence of juvenile delinquency in both urban and rural areas with a recidivism rate of nearly 85% (Sagarin, Donnermeyer & Carter, 1982; Voorhees, 1981) points to a need for the identification of factors predictive of juvenile crime and predictive of continued adult criminal activity. It is important to identify the personal and legal characteristics of the juveniles who enter the criminal justice system. Much research has been conducted

exploring the characteristics of juvenile delinquents. Sociological, psychological, family, developmental, neurological and environmental variables have been studied extensively.

However, while most researchers agree on the multivariate nature of juvenile delinquency, much of the research has been univariate or bivariate, exploring the relationship between one or two variables and juvenile delinquency. More recently, a small number of researchers have attempted to approach the multidimensional aspects of juvenile delinquency (Hanson, Henggeler, Haefele, & Rodick, 1984; Hollander & Turner, 1985; Kashani, Horwitz & Daniel 1982; King, 1987; Tarter, Hegedus, Winsten & Alterman, 1984). The findings from this small body of multivariate research suggest a strong conceptual link between mental health clinical variables and the development of delinquent behavior.

Prior to the present research, the multidimensional studies had not considered rural juvenile delinquents as a discrete group. Consequently, the similarities and differences between urban and rural delinquents when considered from a multidimensional perspective were unknown. This is of particular significance for predominantly rural states such as Oregon.

Therefore, the intent of this study was the multidimensional description of a rural delinquent population using the methodology established by King (1987). This study was only a partial replication of King's work in that King studied both juvenile and adults subjects, exploring mental health clinical factors and criminal outcomes as adolescents and criminal outcomes as adults.

Therefore, King provided both description and prediction. This study provides only description using a sample drawn from the same incarceration facility used in the King study.

A second intent of the study was the comparison of rural and urban juvenile delinquents from the state of Oregon. This was accomplished by comparing the current findings to those of King (1987), whose subjects were from an urban county. This is timely research for the state of Oregon which has experienced a substantial rise in crime and a subsequent lack of incarceration facilities. Investigation of the factors that may contribute to juvenile and subsequent adult crime, has potential usefulness for program planning in Oregon.

Risk and vulnerability as defined by Rose & Killian (1983) provides the conceptual framework for this research. Classification of the clinical, individual and family variables into risk and vulnerability factors is a long range goal and it is hoped that this work will serve as the beginning of a project to identify risk and vulnerability factors associated with both criminal behavior and mental illness.

The significance of this research to nursing rests in the increased understanding of the etiology of criminal behavior. Reliable and valid knowledge of risk and vulnerability factors will eventually allow nurses in all areas of practice to be instrumental in the early identification of children at risk for becoming delinquent. Such etiological understanding provides a basis for the development of nursing interventions. Nurses are in a unique

intervention position, having both the opportunity and the fund of knowledge to be integral to the task of identifying infants, children and adolescents at risk for delinquent behavior. Palfrey, Kariniski, Clarke, Tomaselli, Meltzer & Levine (1983) found that, when compared to nondelinquents, 57% of delinquents (versus 20% for nondelinquents) had significant contact with the health care system throughout childhood. Additionally, when given current physical examinations, Palfrey, et. al., found that 34% of the delinquents (versus 8% for nondelinquents) had not had consistent health care. Penner (1982), in a review of the extant literature, concluded that health problems in the areas of optometry, audiology, neurology and pediatric medicine were clearly and significantly linked to juvenile delinquency.

This research is also significant to nursing in that, with the exception of King (1987), nursing research has not specifically addressed problems of the delinquent juvenile population. Therefore, this study expands the arena of nursing research.

Review of the Literature

The work of King (1987) and the rural juvenile delinquency literature will be explored extensively. Literature reviewed by King will not be reconsidered. Relevant research generated since King began her study in 1985 will be reviewed.

The King Study

King (1987), using a retrospective correlational design, explored the relationship between fifteen clinical, individual and family variables of urban juvenile offenders and the relationship of

these variables to the prediction of crimes committed by subjects both as juveniles and adults. King reviewed the juvenile court and adult police records of 221 male subjects from an urban Oregon County who had been incarcerated as juveniles in a juvenile detention facility (MacLaren School for Boys) between January 1, 1978 and December 31, 1979. Since juvenile records are destroyed at age 25, this period of time was selected to allow for the establishment of an adult record before the juvenile records were destroyed. King collected data on the following clinical variables: age of first offense, capacity of family to monitor and discipline, completion of GED, history of physical abuse, history of sexual abuse, history of emotional abuse, history of neglect, evidence of a thought disorder, evidence of an affective disorder, evidence of drug and/or alcohol abuse, evidence of lower intellectual functioning/I.Q. below 85, evidence of a learning disorder, evidence of an attention deficit disorder, and evidence of a conduct disorder.

These variables were selected from a review of the literature pertaining to the relationship between various clinical indicators and juvenile delinquency. King (1987) explored the existing literature in the categories of environmental influences, developmental variables, pychopathological variables and conduct disorders. King concluded that there was substantial evidence of correlation between juvenile delinquency and "patterns of abuse, inability of parents to monitor and discipline, clinical patterns of an Undersocialized-Aggressive Conduct Disorder, attention deficit

disorder, lower intelligence, and drug and alcohol problems" (p. 29). King also hypothesized that the predictive validity of these variables and the effect of variable interactions was unclear.

In addition to the clinical variables described above, King (1987) collected data regarding the extent and seriousness of crimes committed by subjects both as juveniles and adults. From this data, a Seriousness Index was established using a weighting system that attributed points to a crime based on the maximum sentence time in years that each crime carries. For example, each Felony A crime was assigned 20 points as 20 years is the maximum sentence time for this crime class.

After conducting a 30 subject pilot study, King developed four research questions summarized below:

> "What are the relationships between the Conduct Disorder and other individual and family variables, the number and seriousness of crimes committed as juveniles and adults, and the decision for remand? Are there individual and family variables that can predict the number and seriousness of crimes committed as juveniles; that can predict the likelihood of remand to the adult court; and that can predict the number and seriousness of crimes committed as adults?" (Abstract)

Notably, King (1987) found that 220 (99%) subjects of the total (N=221) met the Diagnostic and Statistical Manual of Mental Disorders:Third Edition (DSM-III) criteria for Conduct Disorder. Of those, only 4.5% evidenced a Conduct Disorder in the absence of other clinical factors and/or abuse. Eighty-seven percent of the

subjects showed evidence of at least one other clinical disorder such as substance abuse, depression, attention deficit disorder, learning disorders and I.Q. below 85. More than one half of the subjects had suffered neglect and only 37.1% had no evidence of any form of abuse. King also found that 72% of the subjects had an adult criminal record. A summary of King's descriptive findings is found in Table 1.

Table 1

Summary of King's Descriptive Findings (n=221)

	Mean
Age of First Offense	13.2

Last known residence	%
Single parent home	46.2
Step parent home	22.2
Two parent home	18.6
Alone or with Relatives	7.7
Foster Home	5.4

Supervision History	%
No supervision	67.9
Inconsistent supervision	28.1
Adequate supervision	4.1

Education	%
No GED/No Diploma	64.79
GED	35.20
Completion of Diploma	.005

Clinical Disorders

Conduct Disorders:

Undersocialized Aggressive	% 57.5
Undersocialized Nonaggressive	22.6
Socialized Aggressive	13.6
Socialized Nonaggressive	6.3
No conduct disorder	<1.0
Conduct Disorder only	4.5
Conduct Disorder w/abuse	7.7
Conduct Disorder w/other disorder	33.6
Conduct Disorder w/ other & abuse	53.9
Abuse only	.4

Criminal History

	Mean
Juvenile offense #	12.38

	%
Juvenile Felony A	70.1
Adult Criminal record	72.0
Adult Felony A or B	52.5
>5 Crimes as Adult	51.5

	Mean
Juvenile Seriousness Index	58.75
Adult Seriousness Index	39.87

Known Abuse History	%
Neglect	52.5
Physical abuse	23.1
Emotional abuse	17.2
Sexual abuse	<1.0
No mention of abuse	37.7

	%
Thought Disorder	5.0
Depression	18.6
Drug Abuse	53.4
Alcohol Abuse	33.0
I.Q. <85	14.9
Attention Deficit Disorder	22.6
Learning Disorder	18.1
Other	11.8

Using Chi-Square analysis the three variables of neglect, lower I.Q. and learning disorder were shown to have significant relationships with the subgroups of Conduct Disorder, specifically Undersocialized-Aggressive and Undersocialized-Nonaggressive. While all Conduct Disorders were statistically significant (using multiple regression) to the prediction of adult criminal behavior, the Undersocialized-Aggressive Conduct Disorder was found to be most significant in relationship to the severity and extent of criminal behavior for both juveniles and adults. Additionally, King (1987) found that when subjects with Conduct Disorders other than Undersocialized-Aggressive did commit crimes as adults, they were likely to have a history of drug and/or alcohol abuse.

In addition to Conduct Disorder, variables of significance to the prediction of juvenile criminal behavior included learning disorder, depression and age of first offense. Variables of significance in the prediction of adult criminal behavior included: age of first offense, physical abuse, sexual abuse, substance abuse and the seriousness of juvenile crimes. Age of first offense has also been demonstrated by Tolan, (1987) to be the most significant predictor of continued criminal behavior.

Multidimensional Research since King

Westendorp, Brink, Roberson & Ortiz (1986) attempted to determine variables that differentiated juvenile placement into a mental health system or the juvenile justice system. This was done by examining consecutive admissions to both systems. Prior criminal history was not explored in either group. Eight variables were found to

significantly differentiate the groups and are presented in order of decreasing importance: ethnicity, gender, MMPI-depression, previous mental health history, Child-Adolescent Adjustment Profile (CAAP)-productivity, drug use, parental marital history and parental religious preference. Westendorp, et. al. (1986) considered only the variable MMPI-depression as a psychological measure. The CAAP was only significant on one scale (productivity) and subsequently not a valid predictor overall. Therefore, Westendorp, et. al. (1986) concluded that subject and family demographic variables determined the placement system for the troubled adolescent.

The design of this study with the exclusion of the variable of previous criminal behavior, limits its generalizability. However, the MMPI data obtained by the researchers may have some relevance for future study. Both groups had the same modal code of psychopathic deviate and mania, although this code was more frequent in the juvenile justice population and the code of psychopathic deviate and schizophrenia was more frequent in the mental health group. These findings point to the important links between mental health and delinquency.

Veneziano & Veneziano (1986) attempted cross-validation of the Megargee Typology with adolescent offenders. This typology has been developed for the classification of adult offenders using the MMPI. Using this procedure, Veneziano & Veneziano (1986) found that 45.8% were in the normal group, 19.5% in the neurotic group, 12.4% in the disturbed group and 16.8% in the characterological group.

Although the work of Westendorp, et. al. (1986) and Veneziano &

Veneziano (1986) neither supports nor refutes the findings of King (1987), both are noteworthy because of the effort to link mental health diagnosis and juvenile delinquency.

Rural Juvenile Delinquency

Research in the area of rural juvenile delinquency is quite limited and has been conducted almost exclusively from the theoretical perspective of sociology. The most extensive study of rural criminal behavior, Clinard (1942, 1944 cited in Sagarin, Donnermeyer, & Carter, 1982), is frequently cited in research of the past ten years. Clinard found rural offenders to be less sophisticated, less involved in organized crime and less likely to see themselves as criminal. Clinard concluded that the personal relationships prevalent in rural areas yielded a form of social control and prevented the development of significant criminal behavior.

Subsequent studies (Lentz, 1956; Clark & Wenniger, 1962) found less extensive delinquency among rural delinquents when compared with urban juvenile delinquents. More recent research has not supported such differentiation between urban and rural delinquents. In testing social control theories of delinquency, Lyerly & Skipper, (1981) found that while there was a higher percentage of delinquency among urban subjects (68% versus 32% for rural subjects), no difference existed between rural and urban subjects with regard to commitment to formal authority. They also found urban subjects reported a slightly higher percent of commitment to family.

Sagarin, Donnermeyer & Carter, (1982) suggest that social changes of the past two decades have contributed to the increased incidence of

rural crime and the decreased differentiation between rural and urban offenders. They cite influential factors including increased rural affluence, increased opportunity due to available transportation, vacancy of homes during the day, and growth of suburbs as responsible for blurring traditional geographic and social definitions of urban and rural boundaries. These factors are coupled with ongoing preconditions of low density housing and traditionally low numbers of law enforcement personnel. Sagarin, Donnermeyer & Carter also cite the increased number of single parent households in rural areas as an influential factor in rural crime noting that single parent households have consistently been linked with an increased incidence of juvenile delinquency.

Polk (cited in Miller, Hoiberg & Ganey, 1982) found the extent and seriousness of juvenile crime to be comparable between metropolitan and non-metropolitan delinquents. This finding supported earlier research by Griffin and Griffin (1978) who examined the crime patterns of rural and urban delinquents. The conclusions of Griffin and Griffin (1978) are contradicted by the work of Miller, Hoiberg & Ganey, (1982). Using self-report data from Iowa high school subjects, comparisons were made between rural farm and nonfarm subjects with urban subjects. The rural nonfarm group had a slightly higher rate of reported delinquent activity over the farm group. However, both rural groups reported significantly less delinquent activity than the urban group.

Donnermeyer & Phillips (1982), using a self-report design with volunteer high school subjects, explored the extent and nature of

vandalism in rural Ohio and Indiana and found that almost 52% of subjects reported engaging in at least one act of vandalism. Of those disclosing vandalism in Indiana, 35.3% were in the "serious category" and 8.9% in the "very serious" category. Donnermeyer & Phillips (1982) also found a higher incidence of vandalism in those subjects from families with a single head of household. This was evident in both the Ohio and Indiana samples, although statistically significant only in the Ohio group. Additionally, it appeared that increased parental supervision and increased family involvement produce lower rates of vandalism.

Donnermeyer & Phillips (1982) also examined the relationship of drug and alcohol use with acts of vandalism and found that 40% of the Ohio sample and 46% of the Indiana sample were using alcohol at the time the vandalism occurred. Drug use was reported by 12% and 18% respectively. Natalino (1982) found that 33% (n=514) of rural subjects in her research drank regularly. Although Forslund (1977) also found a correlation between rural juvenile drug use and increased involvement in criminal activities, he concluded that rural youth were less likely to be drug abusers than their urban counterparts.

Napier and Pratt's (1982) investigation of drug use among rural adolescents is informative with respect to the link between drug use and rural criminality. Although delinquency was not a variable in the study, they reported a number of findings that may serve the understanding of rural delinquency and Forslund's (1977) correlation with drug use. These included: 1) drug use was distributed randomly by socioeconomic class; 2) subjects with parents living together had a

lower probability of drug use than subjects from "broken homes"; 3) correlation between the experience of serious personal problems and increased drug use was found to be a weak but consistent relationship. Thus, the relationship between rural drug and alcohol use and delinquent behavior is unclear and warrants further investigation.

Natalino (1982), compared urban and rural subjects, on four family variables including, family structure, home satisfaction, degree of parental control attempted and adolescent response to parental controls, to test the social control theory explanation of rural delinquency. Natalino also found that whereas urban delinquents were more likely to be from "broken homes", the effect of living in a non-nuclear family appeared to be more detrimental to the rural juvenile and resulted in a greater proportion of delinquency. Additionally, the rural subjects reporting a lower level of satisfaction with home life were more likely to have higher levels of delinquent involvement and were less likely to conform to parental expectations. Notably, Natalino found that rural juveniles were still less involved than their urban counterparts with regards to drug crimes and personal injury offenses, confirming the perspective that rural juveniles are likely to commit offenses against property.

In summary, what is currently known about rural juvenile delinquency primarily consists of sociological information. It is known that single parent households have increased in rural areas and that a correlation exists between such households and delinquency. There is conflicting evidence as to the nature and severity of rural crime in comparison to urban crime, however the majority of

information indicates that rural delinquents are engaged in less criminal activity than their urban peers and that the crimes committed are predominantly crimes against property. Rural adolescent drug and alcohol consumption patterns and their possible correlation to delinquency are unknown. The extant literature has not explored the individual clinical variables of this population nor examined rural delinquents from a multidimensional perspective.

Conceptual Framework

The concepts of risk and vulnerability, historically rooted in epidemiology, provided the conceptual model for this research. Rose and Killien (1983) present a persuasive argument for the applicability of the concepts of risk and vulnerability to the practice of nursing. Rose and Killien define vulnerability as "personal factors that interact with the environment to influence health" (p. 61) and risk as the "presence of potentially stressful factors in a person's environment" (p.62). They consider vulnerability to reflect both constitutional and acquired factors.

The assumption guiding this research is that all variables contributing to juvenile delinquency and its extent and seriousness can eventually be construed as either risk or vulnerability factors. Furthermore, this conceptualization provides for classification of individuals at risk for criminal involvement on the developmental continuum from infancy to adulthood. The risk and vulnerability framework provides a systematic way of organizing existing information about the delinquent population. Additionally, use of this conceptual framework is consistent with extensive efforts by Rutter & Gillier

(1985) to identify risk factors that lead to juvenile delinquency. However, to date, Rutter & Gillier (1985) have not focused on psychiatric or mental health factors in the child. King (1987) did not use risk and vulnerability as a conceptual framework.

Research Hypotheses

The research questions guiding this study were as follows: 1) is there a significant relationship between the Conduct Disorders, the clinical variables and juvenile delinquency patterns; 2) how does drug and/or alcohol abuse appear to influence the patterns of juvenile delinquency; and 3) how does a rural delinquent population compare with an urban delinquent population from the state of Oregon? As a result of these questions, six hypotheses were generated. Five were adapted from King (1987) and one was developed for this study exclusively.

King (1987) used the Diagnostic and Statistical Manual of Mental Disorders: Second Edition (DSM-III) to establish the diagnosis of Conduct Disorder. The third edition, Diagnostic and Statistical Manual of Mental Disorder: Third Edition (DSM-III-R) included substantial changes in the Conduct Disorder classification. Therefore, in the current study, each subject was rated for Conduct Disorder using both DSM-III and DSM-III-R criteria (see Appendix A) Hypotheses 1,2, & 3 were tested using both ratings. Hypothesis 4 considers only the DSM-III classifications and hypothesis 5 only the DSM-III-R criteria.

The following correlational hypotheses, adapted from King (1987) were established for this study:

1. A significant relationship exists between the Conduct Disorders and:
   a) abuse,
   b) neglect,
   c) I.Q. < 85,
2. Significant differences exists between the categories of Conduct Disorder and the:
   a) age of the first delinquent offense,
   b) the number of juvenile offenses,
   c) the severity of juvenile offenses.
3. No significant relationships exist between the selected family and individual variables (other than Conduct Disorder), and the seriousness of crimes committed as measured by the Juvenile Seriousness Index, the most serious crime committed and the commission of at least one Felony A.
4. When Socialized-Aggressive (S/A), Undersocialized-Nonaggressive (U/N), and Socialized-Nonaggressive (S/N) Conduct Disordered subjects have a history of substance abuse, they will be more likely to have a Juvenile Seriousness Index greater than the sample mean.
5. When Group Type and Undifferentiated Type Conduct Disordered subjects have a history of substance abuse, they will be more likely to have a Juvenile Seriousness Index greater than the sample mean.

The last hypothesis was developed specifically for this study:

6. The rural sample will not differ from the urban sample with the following two exceptions;

   a) The rural sample will have a significantly lower Juvenile Seriousness Index:

   b) The rural sample will have a greater history of drug and/or alcohol abuse.

CHAPTER II

METHODS

Design

This study design was retrospective and correlational. As a partial replication of the King (1987), study, the procedure for juvenile data collection and analysis was identical to the original study. However, in the original study all subjects had reached the age of 18, thereby enabling King to obtain a complete juvenile criminal history. In this study, the juvenile criminal history was not always complete as some subjects had not reached the age of 18. The current study differed from the original study in that the goal was description and correlation without prediction. Prediction requires a sample size beyond the scope of this study. To establish predictors, King examined adult criminal records which were not obtained for this study.

Subjects

The sample consisted of a random selection of 70 males committed to the MacLaren School for Boys (MSB) between January 1, 1984 and December 31, 1984 who were residents of Marion County, Oregon. Marion County was selected because this county has the highest number of admissions to MSB from a rural area. King's (1987) sample consisted of all subjects from urban Multnomah County, Oregon incarcerated at the MSB between January 1, 1978 and December 31, 1979. The time period for the current study was chosen for two reasons: 1) In 1984, the record-keeping system at MSB was changed so that clinical and legal information previously housed in the county of residence was

consistently forwarded to MSB and, 2) by selecting 1984, a large number of subjects had reached age 18 enabling the researcher to establish a larger number of complete juvenile crime histories.

Procedures

Names and birthdates of all potential subjects were obtained from the MSB entry log for the above time period. The 157 names were randomized and the first seventy-two were used for data collection. One record was eliminated because the county was incorrect and another was eliminated because the subject was an urban resident of another state who committed a crime in Marion County.

The records were obtained and the data was collected on site at MSB using a revised edition of the data collection instrument designed by King (1987) (See Appendix B). The revisions included: 1) the additional item of presence or absence of a psychiatric evaluation in the record, and 2) addition of the DSM-III-R categories, 3) deletion of the adult criminal items. Additionally, the Juvenile Seriousness Index (JSI) was established using the formula designed by King which weights the number and seriousness of crimes and establishes a numerical value (see Appendix C).

The data collection site differs from the King (1987) study in that prior to 1984, prior assessment information was not routinely sent to MSB and was housed in the county of residence. Subsequently, King obtained the information from the record housed in the county of residence rather than the record at MSB. The content of the records has not been changed.

Protection of Human Subjects

This research was approved by the Human Subjects Committee of the Oregon Health Sciences University. In accordance with the National Institute of Health Guidelines (NIH), the information was recorded in a manner that does not allow the identification of subjects. A single computerized list of names and codes accessible only to the researcher, will be maintained in a locked file cabinet for three years to allow for future follow-up research. This plan is concordant with state law which requires destruction of juvenile justice records upon the 25th birthday.

Variables

In addition to basic demographic information, data collected from the juvenile records included fifteen clinical descriptors and three legal descriptors. These variables established by King (1987), are listed below:

1. Age of first offense
2. Capacity of family to monitor and discipline
3. Completion of GED
4. History of physical abuse
5. History of sexual abuse
6. History of emotional abuse
7. History of neglect
8. Evidence of a thought disorder
9. Evidence of an affective disorder
10. Evidence of drug abuse
11. Evidence of alcohol abuse

12. Evidence of lower intellectual functioning/I.Q. below 85
13. Evidence of a learning disorder
14. Evidence of an attention deficit disorder
15. Evidence of a subcategory of the Conduct Disorders
16. The number of offenses committed as a juvenile
17. The seriousness of the offenses committed as a juvenile
18. Remand status as a juvenile

The DSM-III-R was used as the diagnostic reference for the psychiatric variables (8-15) with the exception of the Conduct Disorders which were rated using both DSM-III and DSM-III-R. For the variables of interest to this study, it is only in Conduct Disorder that there is substantial difference between the DSM-III and the DSM-III-R. Appendix A provides further description of the guidelines used during data collection.

Validity Threats

Multidimensional data are difficult to collect and subject to validity threats. This is particularly true when using a retrospective design dependent upon records which lack consistency. The data collection instrument and process designed by King (1987) has not yet had complete reliability or validity testing.

Reliability and Validity

A replication design was chosen as a preliminary measure towards the establishment of reliability and validity. Huck, Cormier & Bounds, (1972) state that replication is a basic principle of

"competent research" (p. 369). According to Huck, Cormier & Bounds, one purpose of replication is the establishment of replicative validity of the procedures. This is accomplished by direct replication which requires exact replication of the procedures used in the original study. Direct replication is particularly useful for this research design which necessitates collection of clinical data from records not designed for clinical purposes and requires the researcher to synthesize data in a manner consistent with established diagnostic criteria.

To insure that the current researcher was using the instrument in a manner reliable with King (1987), the researcher and the instrument developer reviewed and independently scored three randomly selected records. Percentage agreement was calculated for each of the thirteen clinical variables. Although the number of cases was limited, the results obtained indicate that the two raters were approaching the data collection and coding in a consistent manner. The two raters obtained 100% agreement on the following items: parental supervision/control, Conduct Disorder diagnosis using both DSM-III and DSM-III-R, evidence of thought disorder, evidence of drug abuse, evidence of alcohol abuse, evidence of attention deficit disorder, evidence of learning disability, and presence of IQ below 85. Sixty-six percent agreement was obtained on the items of evidence of depression and evidence of other health problems.

Rater discussion following the data collection provided information regarding the discrepancies. In reviewing the category evidence of depression, both raters considered the clinical

information to indicate depression. However, one rater coded depression more consistent with the DSM-III-R criteria and the other rater coded it more consistent with clinical practice. The diagnosis of depression in children and adolescents is controversial in the psychiatric/mental health field and the variation of the raters on this item appeared to reflect that controversy. This indicates a need to develop additional guidelines for depression before the instrument is used again. The second item of disagreement, other health problems, reflected one raters decision not to rate asthma as a notable health concern. This item also calls for additional coding instructions.

Rater discussion of all the items also indicated that item, by item, the raters had used the same information in the record to establish the selected item rating. Both raters are psychiatric nurses with approximately the same amount of clinical experience (15 years). One rater has a Clinical Psychology doctorate and the other rater is completing a Master's Degree in Psychiatric/Mental Health Nursing. The reliability results suggest that the data collection tool and procedure can be reliably employed by raters with a high level of clinical expertise.

Plans for future instrument development and testing include use of the tool by both experienced and non-experienced raters. It is conceivable that the tool may be more reliable when used by experienced clinicians. Additionally, a coding manual will be developed prior to further use of the instrument.

The current results suggest that this research design is reliable

and can produce meaningful clinical information using a methodology that is both cost and time efficient in contrast to other methods that could be employed to obtain similar data, i.e. individual psychiatric and psychological assessments. However, future research will need to entail the establishment of further inter-rater reliability and determination of level of clinical expertise required to obtain reliable data. Once reliability has been fully established, validity testing of the process would be in order. Since validity of the clinical items has been established to some extent in the DSM-III-R, it would be useful to compare the process to other methods of assessment, such as concurrent psychiatric and psychological assessment.

Analysis

Statistical analysis was performed using the Systat statistical analysis program. The plan for statistical analysis to provide description and correlation was consistent with the analysis used by King (1987). Frequency distributions for all individual, family and legal variables were established to provide descriptive statistics, including percentages and measures of central tendency.

Chi-square analysis was used to explore relationships between individual and family variables and the diagnosis of Conduct Disorder. Analysis of variance (ANOVA) was used to explore the differences between the Conduct Disorders on the criminal variables. T-tests were used to further explore the socialization/aggression data from DSM-III diagnosis and the criminal variables. Chi-Square was used to examine the relationships between the clinical variables and

all of the criminal variables, and ANOVA was employed to assess differences between groups. Three-way cross tabulations were used to explore associations among Conduct Disorder classifications, substance abuse and the Juvenile Seriousness Index. Pearson correlations were used for exploratory analysis of the possible relationship between criminal variables and both the Juvenile Seriousness Index and the age of first offense.

Additionally, three variable groupings were established from the data for tests of significance. These were called abuse, drug/alcohol, and learning. Frequently subjects had more than one form of abuse, used both drugs and alcohol, and had more than one problem likely to interfere with learning. The categories represent the presence of at least one of the variables for each group. The abuse category consists of the emotional abuse, sexual abuse, physical abuse and neglect variables. The drug/alcohol category consists of the drug abuse and alcohol abuse variables. The learning category consists of the following variables: I.Q. less than 85, learning disability and attention deficit disorder.

CHAPTER III

RESULTS

Description of the Subjects

The following description of the 70 subjects from Marion County admitted to MacLaren School for Boys between January 1, 1984 and December 31, 1984, results from analysis using frequency distributions and measures of central tendency. Following presentation of the descriptive statistics the research questions and related hypothesis are examined.

Demographic Variables

The majority of subjects (90%) were Caucasian. The remaining subjects were Hispanic (4.3%), Native American (4.3%) or Black American (1.4%). According to the 1980 census information for Marion County, Oregon, the racial distribution for Marion county was: Caucasian, 94.55%, Black American, .71%, Native American, 1.12%, Hispanic, 4.76%, Asian, 1.25%. Therefore, in the sample, Black Americans are over represented and Native Americans are under represented.

The mean age of subjects at the time of admission to MacLaren was 15.5 years (SD 1.27). The median admission age was 16 years with a bimodal distribution of 15,16 years. The mean age of first offense was 13.01 years (SD 2.42) with both a median and mode of 13 years. The mean age of subjects at the time of the study was 19.4 years with both a median and mode of 19.5.

The living situation prior to admission to MSB reflected three discrete family living categories: the two parent home, the home with

a parent and stepparent, and the single parent home. A fourth category reflecting all other living situations was also established. The living situation of parent and stepparent was the most frequently encountered (40%). Only 12.9% of the subjects lived with two parents and 27.1% lived in a single parent home. The rest of the subjects (20%) lived in various situations most often in foster/residential care or with other relatives. The majority of the subjects (52.9%) lived or had last lived in family situations characterized as providing inconsistent parental supervision and control. More than one third of the subjects (37.1%) had parental supervision/control patterns that were considered non-existent and only 10% were from home situations in which the record reflected adequate parental control.

Legal Variables

More than one half (52.9%) of the subjects admitted to MSB had committed a Felony A crime. This crime classification carries a maximum sentence of 20 years. The total number of recorded juvenile offenses ranged from 1-27 with a mean of 9.271 (SD 5.26), a median of 8 and a mode of 8. The Juvenile Seriousness Index (JSI) ranged from 2.00-140.70 with a mean of 34.49 (SD 31.34), a median of 26.5 and a mode of 27. Only five subjects had been remanded to the adult court. Table 2 provides a summary of the legal variables.

Table 2
Legal Variables of the Rural Juvenile Delinquents

Age Parameters	Mean (SD)	Median	Mode	Range
Age of First Offense	13.01(2.42)	13.00	13.00	6-17
Age of Admission to MSB	15.50(1.27)	16.00	15,16	12-18
Crime Parameters	**Mean(SD)**	**Median**	**Mode**	**Range**
Offense Number	9.27(5.26)	8.00	8.00	1-27
Juvenile Seriousness Index	34.49(31.34)	26.55	27.00	2-141
Most Serious Crime	**Percent Frequency**		**Number**	
Felony A	52.9%		n=37	
Felony B	5.7%		n=4	
Felony C	30.0%		n=20	
Misdemeanor A	11.4%		n=8	

Abuse

The four categories of emotional abuse, physical abuse, sexual abuse and neglect were explored. The most frequently found form of abuse was physical (38.6%). Twenty percent had experienced neglect, 14.3% sexual abuse and 12.9% had experienced emotional abuse. Slightly more than one half of the subjects (58.57%) experienced at least one form of abuse while 41.43% had records that did not reflect a history of abuse.

Education

The records reflected a consistent pattern of school difficulty. Since the majority of subjects were over the age of 18 at the time of data collection, an attempt was made to determine how many subjects had graduated high school or completed a GED. The available records were extremely inconsistent and often it was impossible to establish educational experience following incarceration. It could be determined that 37.1% of the subjects had completed a GED and that 25.7% had neither completed a GED nor received a high school diploma. For 37.1% of the subjects, an education record following incarceration could not be established thereby preventing statistical analysis of this variable.

Conduct Disorder

From the total sample of 70 subjects, only four subjects (5.7%) did not meet the criteria for a Conduct Disorder using both the DSM-III and the DSM-III-R criteria. Table 3 shows the distribution of Conduct Disorders using both diagnostic sets.

Using the DSM-III criteria, the majority of the subjects were

represented in the socialization categories with 27.14 % classified as Socialized Aggressive and 32.86% classified as Socialized Nonaggressive. The remaining subjects who met the Conduct Disorder criteria were undersocialized with 31.43% considered Undersocialized Aggressive and 2.86% considered Undersocialized Nonaggressive.

The distribution from the DSM-III-R diagnostic groupings included 42.86% rated as Group Type, 12.86% as Solitary Type, and 38.57% as Undifferentiated Type.

Table 3

Conduct Disorder: Distribution for DSM-III and DSM-III-R

Conduct Disorder DSM-III	Subjects	Percentage
Socialized Aggressive	19	27.14
Undersocialized Aggressive	23	32.86
Socialized Nonaggressive	22	31.43
Undersocialized Nonaggressive	2	2.86
No Conduct Disorder	4	5.70
Total	70	100.0%
Conduct Disorder DSM-III-R		
Group Type	30	42.86
Solitary Type	9	12.86
Undifferentiated Type	27	38.57
No Conduct Disorder	4	5.70
Total	70	100.0%

Other Major Clinical Disorders

The other clinical disorders examined in this study are presented in Table 4. Most striking is the extensive evidence of drug/alcohol abuse with 80% of the subjects. Evidence of thought disorder was present in 17.1% of the sample and depression was evident for 18.6% of the subjects. Slightly more than one fourth of the subjects had evidence of a learning disability (25.7%) and 18.6% had evidence of attention deficit disorder. Four subjects (5.7%) had a recorded I.Q. of less than 85. It is also noteworthy that while many subjects had evidence of more than one clinical disorder, all but two subjects had evidence of at least one clinical disorder. When the categories of learning disability, attention deficit disorder and I.Q. of less than 85 were collapsed into one category (learning) 37.1% showed evidence of a clinical disorder that could interfere with school success.

Table 4

Clinical Disorders Other Than Conduct Disorders: All Subjects

Clinical Disorder	Subjects n	Percentage %
Thought Disorder	12	17.1%
Depression	13	18.6%
Drug Abuse	53	75.7%
Alcohol Abuse	41	58.6%
Drug/Alcohol Abuse	56	80.0%
IQ less than 85	4	5.7%
Attention Deficit Disorder	13	18.6%
Learning Disability	18	25.7%
Learning	26	37.1%
Other*	14	20.0%

*Other refers to any physical or mental health problem not on the list of rated clinical disorders.

Coexisting Clinical Disorders and Abuse

The complexity of the diagnostic aspects of the subjects is demonstrated by the examining the Conduct Disorders in combination with other clinical variables. As Table 5 demonstrates only 2 subjects had a Conduct Disorder without at least one other clinic disorder and no subjects had a Conduct Disorder with only abuse as an additional clinical variable. The clinical profile of the four subjects who did not evidence a Conduct Disorder is also notable. All had evidence of at least one clinical disorder and two had a history of abuse.

Table 5

Subjects with Conduct Disorders: Rate of Additional Disorders

Diagnostic Categories	Number n	Percent Frequency %
Conduct Disorder only	2	3.0
Conduct Disorder with abuse only	0	0
Conduct Disorder with at least one other clinical disorder	25	39.0
Conduct Disorder with at least one other clinical disorder and abuse	39	59.0
	n=66	100%

Research Question 1

The first research question was concerned with whether there is a significant relationship between the Conduct Disorders, clinical variables, family variables and the juvenile delinquency patterns. Three hypotheses were developed to address this question.

Hypothesis 1

Hypothesis 1 states: A significant relationship exists between the Conduct Disorders and; a) learning disability, b) neglect, and c) I.Q. below 85. This hypothesis was tested by Chi-Square analysis using both the DSM-III and the DSM-III-R criteria. Tables 6 and 7 present the frequency distributions of the subjects within each Conduct Disorder diagnosis for the clinical variables. Using the DSM-III criteria for classifying Conduct Disorders, the following variables were shown to be significantly related to: sexual abuse, neglect, thought disorder, and learning disability. The grouped variables of abuse and learning also demonstrated significant association with the Conduct Disorders. As Table 6 demonstrates, the most significant associations occur for the Undersocialized Aggressive Conduct Disorder, followed by the Socialized Aggressive diagnosis.

Therefore, the hypothesis was supported with regard to neglect and learning disability. The findings of significance for history of sexual abuse and thought disorder were not predicted.

Using, the DSM-III-R criteria for classifying Conduct Disorders, the following variables were shown to have significant associations: sexual abuse, thought disorder, alcohol abuse, and learning disability. The grouped variable of abuse also demonstrated a

significant relationship. Only the finding of a significant relationship between conduct disorder and learning disability was hypothesized. The significant findings for associations with history of sexual abuse, thought disorder, and alcohol abuse were not predicted.

In summary, abuse was significantly associated with both diagnostic classifications (DSM-III and DSM-III-R). Neglect was a significant variable only using DSM-III. I.Q. below 85 did not yield significance with either classification system. Thought disorder, sexual abuse, and learning disability were significant associations with both sets of diagnostic categories.

Table 6

Conduct Disorders (DSM-III) and Clinical Variables

	S/A N(%)	U/A N(%)	S/N N(%)	U/N N(%)	Chi-Square	Probability
Emotional Abuse	1(1.5)	3(4.6)	2(3)	1(1.5)	4.043	0.257
Physical Abuse	8(12.1)	11(16.7)	6(9.1)	0	3.383	0.336
Sexual Abuse	1(1.5)	8(12.1)	1(1.5)	0	10.622	0.014*
Neglect	5(7.6)	4(6.1)	2(3.0)	2(3.0)	10.322	0.016*
Abuse	11(16.7)	18(27.3)	8(12.1)	2(3.0)	9.593	0.022*
Thought Disorder	0	9(13.6)	0	1(1.5)	19.498	0.000***
Depression	5(7.6)	6(9.1)	1(1.5)	0	5.006	0.171
Drug Abuse	15(22.7)	15(22.7)	20(30.3)	2(3.0)	5.007	0.171
Alcohol Abuse	12(18.2)	11(16.7)	16(24.2)	1(1.5)	3.073	0.380
D/A Abuse	16(24.2)	16(24.2)	21(31.8)	2(3.0)	5.877	0.118
I.Q. < 85	0	3(4.6)	0	0	5.876	0.118
ADD	3(4.6)	7(10.6)	2(3.0)	0	4.061	0.255
Learning Disorder	1(1.5)	10(15.2)	3(4.6)	2(3.0)	15.958	0.001***
Learning	4(6.1)	14(21.2)	4(6.1)	2(3.0)	14.537	0.002**

df = 3
* p < .05
** p < .01
*** p < .001

Table 7

Conduct Disorders (DSM-III-R) and Clinical Variables

	Group N(%)	Solitary N(%)	Undifferentiated N(%)	Chi-Square	Probability
Emotional Abuse	2(3.0)	1(1.5)	4(6.1)	0.998	0.607
Physical Abuse	9(13.6)	5(7.6)	11(16.7)	2.081	0.353
Sexual Abuse	1(1.5)	5(7.6)	4(6.1)	14.690	0.001***
Neglect	5(7.6)	4(6.1)	4(6.1)	4.066	0.131
Abuse	14(21.2)	9(13.6)	16(24.2)	9.147	0.017*
Thought Disorder	2(3.0)	4(6.1)	4(6.1)	7.690	0.021*
Depression	5(7.6)	2(3.0)	5(7.6)	0.147	0.929
Drug Abuse	24(36.4)	6(9.1)	22(33.3)	0.935	0.627
Alcohol Abuse	21(31.8)	2(3.0)	17(25.8)	6.726	0.035*
D/A Abuse	27(40.91)	1(1.5)	22(33.3)	2.832	0.243
I.Q. < 85	0	1(1.5)	2(3.0)	2.832	0.243
ADD	5(7.6)	2(3.0)	5(7.6)	0.147	0.929
Learning Disorder	4(6.1)	6(9.1)	4(6.1)	10.824	0.004**
Learning	8(12.1)	6(9.1)	10(15.2)	4.796	0.091

df = 2
* p < .05
** p < .01
*** p < .001

Hypothesis 2

Hypothesis 2 states that significant differences exist between the types of Conduct Disorders with respect to a) the age of first offense, b) the number of juvenile offenses, and c) the severity of juvenile offenses. One-way analysis of variance was used to test the hypothesis with the dependent criminal indicators of age of first offense, offense number, commission of a Felony A and the Juvenile Seriousness Index. Chi-square analysis was used to assess the Conduct Disorders in relation to the most serious offense committed. Additionally, t-tests were used for further statistical comparisons of the socialization and aggression factors of the DSM-III classifications.

Comparison of the four subcategories from DSM-III (See Table 8) and the three subcategories from DSM-III-R, (see Table 9) with the dependent criminal variables did not yield significant differences. Conduct Disorder as classified by DSM-III was demonstrated to be significantly related only to the most serious crime committed ($x^2=19.039$ $p< .025$). The DSM-III-R categories had no significant differences with respect to the criminal variables. Comparison of the socialization factors from the DSM-III subcategories yielded significant differences on two variables. T-test comparisons indicated that the commission of at least one Felony A offense and the Juvenile Seriousness Index were significantly different ($p <.05$) by socialization factor. Socialized delinquents had significantly higher mean scores than undersocialized delinquents. The aggression factor did not differentiate juveniles on these variables.

Therefore, the Conduct Disorder did not prove consistently significant with the criminal variables and the hypothesis was not supported.

Table 8

Delinquency Outcomes in Relationship to DSM-III Conduct Disorder Classifications

	Age of First Offense Mean/SD	Offense Number Mean/SD	Felony A Mean/SD	Juvenile Seriousness Index Mean/SD
S/A				
n=19	12.01	11.63	1.0	43.06
(27.14%)	2.98	6.33	1.05	27.12
U/A				
n=23	13.13	8.78	.57	27.04
(32.86%)	2.18	5.10	.73	23.52
S/N				
n=22	13.50	8.55	1.32	40.93
(31.43%)	2.24	3.61	1.86	41.18
U/N				
n=2	12.50	11.5	0	6.41
(2.85%)	.71	7.78	0	5.93
ANOVA 4 Groups				
df (3)				
F	1.192	1.594	1.622	1.173
T-TEST	Mean/SD	Mean/SD	Mean/SD	Mean/SD
Soc.	12.91	9.88	1.14	41.33
	2.66	5.20	1.52	34.75
UnS.	13.00	9.13	0.54	25.73
	2.11	5.26	0.72	23.69
t	-.160	.564	2.17**	2.16**
Agg.	13.40	8.72	1.16	37.45
	2.12	3.84	1.80	39.82
NonA.	12.66	10.14	0.78	34.56
	2.62	5.85	0.91	26.43
t	1.26	-1.196	.983	.322

** p. <0.05*

Table 9

Delinquency Outcomes in Relationship to DSM-III-R Conduct Disorder Classifications

	Age of First Offense Mean/SD	Offense Number Mean/SD	Felony A Mean/SD	Juvenile Seriousness Index Mean/SD
Group Type				
n=30	12.63	10.53	1.2	42.99
(42.9%)	2.48	5.20	1.61	33.05
Solitary Type				
n=9	12.11	8.0	0.67	28.63
(12.9%)	2.98	6.33	0.87	33.84
Undifferentiated. Type				
n=27	13.56	9.11	0.71	29.85
(38.6%)	2.17	4.77	1.03	29.29
ANOVA 3 Groups df(2)				
F	1.627	1.033	1.218	1.480

Hypothesis 3

Hypothesis 3 stated that no significant relationships exist between the clinical variables (other than Conduct Disorder) and the seriousness of crimes as measured by the Juvenile Seriousness Index, the most serious crime committed, and the commission of at least one Felony A. Chi-Square analysis was used to assess the clinical variables in relation to the following criminal markers: commission of a Felony A crime and the most serious crime committed. Analysis of variance was used to compare the clinical variables with respect to the offense number, the number of Felony A crimes and the Juvenile Seriousness Index (See Table 10).

Using Chi-square analysis, the clinical variables history of sexual abuse and the collapsed category of abuse yielded significant associations. With n=10, sexual abuse was significantly associated with the commission of at least one Felony A crime (X2=4.613 p.032) and trend for significance in relation to the most serious crime committed (x2=7.688 p. 053). Analysis of variance revealed sexual abuse as a dichotomous variable, to significantly differ on the Juvenile Seriousness Index (F=4.764 p.032), with presence of abuse having a higher seriousness score, and yielded a trend for differences on the number of felony A crimes (F=3.580 p 063).

The collapsed category of abuse as a dichotomous variable was significantly associated with record of at least one Felony A offense (x2=3.934 p .047). Additional findings included a significant difference between the presence and absence of and on the number of (F=9.973, p.002) with the thought disorder group

having a higher number of offenses. Further, the presence versus the absence of thought disorder demonstrated a trend for differences with respect to the Juvenile Seriousness Index ($F=3.606$, $p<.062$); the thought disorder group had a higher mean seriousness score. Therefore, the hypothesis was only partially supported.

Table 10

Relationship between Clinical Variables And Criminal Variables
Chi-Square Analysis

	Most Serious X2(df 3)	Commission of Felony A X2(df 1)
Emotional Abuse	5.709	1.354
Physical Abuse	5.362	3.644
Sexual Abuse	7.688+p.053	4.613 **p.032
Neglect	1.343	0.014
Thought Disorder	3.558	1.898
Depression	3.222	0.178
Drug Abuse	4.214	0.172
Alcohol Abuse	2.913	1.025
IQ below 85	4.103	1.186
Attention Deficit	4.128	0.037
Learning Disorder	3.098	0.165
Abuse	6.202	3.934**p.047
Drug and/or ETOH	2.314	0.014
Learning Problem	.424	0.005

Relationship of Clinical Variables to Criminal Variables
Analysis of Variance

	Offense Number ANOVA F	Felony A Number ANOVA F	JSI ANOVA F
Emotional Abuse	0.253	2.032	2.981+.p.089
Physical Abuse	0.294	0.670	0.301
Sexual Abuse	1.182	3.934**p.047	4.794**p.032
Neglect	0.402	0.361	0.135
Thought Disorder	9.973**p.002	2.074	3.606 +p.062
Depression	0.008	0.778	0.351
Drug Abuse	3.927+p.052	0.078	0.161
Alcohol Abuse	0.017	1.709	1.238
IQ below 85	0.041	0.406+p.0.53	0.699
Attention Deficit	0.007	0.002	0.026
Learning Disorder	0.518	0.163	0.004
Abuse	1.116	1.709	1.022
Drug and/ETOH	4.339**p.041	1.709	0.544
Learning Problem	0.001	0.232	0.091

+ p <.10
** p <.05

Research Question 2

The second research question was: How does drug and/or alcohol abuse appear to influence the patterns of juvenile delinquency. Two hypotheses were developed to address this question.

Hypotheses 4

Hypothesis 4 stated that when Socialized Aggressive, Undersocialized Nonaggressive and Socialized Nonaggressive Conduct Disordered subjects have a history of substance abuse, they will be more likely to have a Juvenile Seriousness Index greater than the sample mean. The Undersocialized Aggressive diagnosis was deleted from this hypothesis because it was anticipated that these juveniles would have a higher JSI by virtue of having met the diagnostic requirements. The mean JSI for the sample was 33.49.

To address this hypothesis, a three-way cross tabulation was used. Table 11 indicates the breakdown of the DSM-III Conduct Disorders by presence or absence of substance abuse and then presents the mean JSI for each of the subgroups. In support of this hypothesis, 39 of the 47 subjects with a Conduct Disorder other than Undersocialized Aggressive had a record of substance abuse. The substance abusers had a mean JSI of 38.86 in the Socialized Aggressive group (n=16); a mean JSI of 41.63 in the Socialized Nonaggressive (n=21) group; and a mean JSI of 6.41 in the Undersocialized Nonaggressive group (n=2), therefore partially supporting the hypothesis.

Table 11

DSM-III Conduct Disorders, Substance Abuse History and the Juvenile Seriousness Index

Conduct Disorder	Substance Abuse History	Mean/SD JSI
Socialized Aggressive n=19 (27.14%)	Sb n=16	38.86 27.08(sd)
	NSb n=3	65.50 14.87(sd)
Undersocialized Aggressive n=23 (32.86%)	Sb n=16	30.58 24.94(sd)
	NSb n=7	18.93 19.03(sd)
Socialized Nonaggressive n=22 (31.43%)	Sb n=21	41.63 42.06(sd)
	NSb n=1	26.10 0
Undersocialized Nonaggressive n=2 (2.86%)	Sb n=2	6.41 5.93(sd)
	NSb n=0	0.00

Sb = Substance Abuse
NSb = No Substance Abuse

Hypothesis 5

Hypothesis 5 stated that when Group Type and Undifferentiated Type Conduct Disordered subjects have a history of substance abuse, they will be more likely to have a JSI greater than the sample mean. The Solitary type was excluded from the hypothesis because it was anticipated that these delinquents would have a higher JSI by virtue of having met the diagnostic criteria. The mean JSI for the total sample was 34.49.

A three-way cross tabulation was used to address this hypothesis. Table 12 indicates the breakdown for the DSM-III-R Conduct Disorders by the presence or absence of substance abuse and then presents the mean JSI for each of the subgroups. In support of this hypothesis, of the 57 subjects with a diagnosis other than Solitary type, 49 had a history of substance abuse. The hypothesis was further supported by the Group Type substance abusers who had a mean JSI of 42.43. The hypothesis was not supported by the Undifferentiated Type substance abusers who had a mean JSI of 28.95.

Table 12

DSM-III-R Conduct Disorders, Substance Abuse History and the Juvenile Seriousness Index

Conduct Disorder	Substance Abuse History	Mean JSI
Group Type n=30 (42.86%)	Sb n=27	42.43 33.53(sd)
	NSb n=3	48.00 34.46(sd)
Solitary Type n=9 (12.86%)	Sb n=6	35.92 39.85(sd)
	NSb n=3	14.03 11.52(sd)
Undifferentiated Type n=27 (38.57%)	Sb n=22	28.95 30.39(sd)
	NSb n=5	33.80 26.56(sd)

Sb = Substance Abuse
NSb = No Substance Abuse

Research Question 3

The third research question asked how does a rural delinquent population compare with the urban delinquent population in the state of Oregon? One hypothesis was formulated to address this question.

Hypothesis 6

Hypothesis 6 posited that the rural sample would not differ from the urban sample with the following two exceptions: 1) the rural sample would have a significantly lower Juvenile Seriousness Index and 2) the rural sample would have a higher rate of drug and alcohol use. Table 13 presents a comparison of the clinical, individual and family results of the current study with those obtained by King (1987). Immediately obvious are a number of differences between the two samples. For the clinical variables, the current study reflects a larger percent of subjects evidencing thought disorder (11.1% versus 5.0%) and drug and alcohol abuse (75.7% versus 53.4% for drugs, 58.6% versus 33.0 % for alcohol). The Conduct Disorder groupings are substantially different with the rural sample reflecting a much higher level of socialization (60.1% versus 19.6%) and a lower level of aggression (57.1% versus 70.9%). The comparisons also reveal a higher incidence of physical and sexual abuse and a lower incidence of neglect in the rural sample.

With regard to the family variables, the rural sample had more stepparent homes (40% versus 22.2%) and fewer single parent homes (27.1% versus 46.2%). The ratings for parental supervision indicate a higher incidence of non-existent supervision in the urban sample and greater inconsistency of parental ability for supervision and

Table 13

Comparison of Results with Results of King (1987)

CLINICAL VARIABLES	Current Study Results Rural n=70	King(1987) Results Urban n=221
Thought Disorder	17.1%	5.0%
Depression	18.6%	18.6%
Drug Abuse	75.7%	53.4%
Alcohol Abuse	58.6%	33.0%
I.Q. below 85	5.7%	14.9%
ADD	18.6%	22.6%
Learning Disability	25.7%	18.1%
Other Health	20.0%	11.8%
Conduct Disorder		
S/A	27.1%	13.2%
U/A	32.9%	57.7%
S/N	31.4%	6.4%
U/N	2.9%	22.7%
No Conduct Disorder	5.7%	0.5%
INDIVIDUAL/FAMILY VARIABLES		
Race		
Caucasian	90.0%	72.9%
Black	1.4%	22.6%
Other	8.6%	4.5%
Abuse		
Emotional	12.9%	17.2%
Physical	38.6%	23.1%
Sexual	14.3%	<1.0%
Neglect	20.0%	52.5%
Living Situation		
Two Parent Home	12.9%	18.6%
Stepparent Home	40.0%	22.2%
Single Parent Home	27.1%	46.2%
Foster/Other	20.0%	7.7%
Parental Supervision Control		
Adequate	10.0%	4.1%
Non-Existent	37.1%	67.9%
Inconsistent	52.9%	28.1%

Comparison of the two samples on the dependent criminal variables is presented in Table 14. Most notably the Juvenile Seriousness Index is significantly higher in the urban sample. Additionally, the mean number of juvenile offenses is higher for the urban sample and there is a greater percent of urban juvenile offenders with a record of at least one Felony A offense. This supports the part of hypothesis 6 which predicted a significantly lower Juvenile Seriousness Index for the rural subjects.

Table 14

Comparison of Current Study with King (1987)

DELINQUENCY VARIABLES	Current Study Results Rural n=70	King (1987) Results Urban n=221
	Mean	Mean
Age of First Offense	13.01	13.20
Total Offense Number	9.27	12.38
Juvenile Seriousness Index	34.49	58.75***
	Percent	Percent
Felony A Crime	52.9%	70.1%
Remand to Adult Court	7.1%	14.9%

***p <.001 (t=4.898770 df 289)

Additional Findings

It was noted in the King (1987) study that the age of first offense and the Juvenile Seriousness Index were significant predictors of adult criminal behavior. Tolan (1987) also found age of first offense to be the most significant predictor of continued criminal behavior. Therefore, exploratory correlational analysis was performed using the Juvenile Seriousness Index and the age of first offense.

The age of first offense in the rural sample was found to be negatively correlated at a low level with the JSI (Pearson's r =-0.23). When the two most influential subjects (outliers) were removed from the sample the correlation increased to -0.26. The subjects most influencing the results consisted of: 1) a subject whose first offense was at age 6 with a JSI of 85 and 2) a subject whose first offense was at age 16 with a JSI of 121.

Additional correlations were also examined for these two variables. These findings of potential clinical interest are presented in Table 15.

Table 15

Correlations between the Juvenile Seriousness Index and Age of First Offense using Pearson's r

	JSI Pearson's R	Age of First Offense Pearson's R
Age of First offense	-0.23	
Most Serious		0.21
Offense Number		-0.23
Felony A Crime		-0.28
Thought Disorder	0.22	
Sexual Abuse	0.26	

CHAPTER IV

DISCUSSION

The purpose of this study was to provide a multidimensional description of a rural juvenile delinquent population by exploring mental health variables of both the individual and family in relationship to criminal justice variables. Multidimensional research with the delinquent population has been a recent phenomenon and to date had not been conducted specifically with a rural sample. As this was a partial replication study, the intent was to additionally provide comparison of the study data to the original data which had been collected from an urban sample. A final intent was to consider the viability of risk and vulnerability as a conceptual framework for the classification of factors potentially influencing the development of delinquency. This final chapter provides an overview of the relevant findings and considers the relationship of the results to extant literature.

Multidimensional Description of a Rural Delinquent Sample: Clinical, Individual and Family Variables

Multidimensional description of a population is a complex task. This study has focused on addressing description relative to the presence of a Conduct Disorder as conceptualized in both DSM-III and DSM-III-R. This was done because Conduct Disorder diagnosis had been overwhelmingly present in the initial study by King (1987), (220 of the 221 subjects met the criteria for Conduct Disorder). Kashani, Horowitz & Daniel (1982) also established the conceptual appropriateness of using Conduct Disorder as a way to approach the

psychiatric/mental health aspects of juvenile delinquency.

The current study data reveal that the majority of subjects (n=66 from a total n=70) met the criteria for diagnosis of a Conduct Disorder using both the DSM-III and the DSM-III-R classifications. Additionally, and perhaps most notable was the finding that only 2 subjects met the criteria for diagnosis of a Conduct Disorder in the absence of any other clinical variables and/or history of abuse. Also outstanding from a multidimensional perspective is the high rate (80%) of alcohol and/or drug abuse in the sample. Earlier research investigating rural vandalism in two Midwestern states Donnermeyer & Phillips (1982), found alcohol use rates of 40% and 46% and drug use rates of 12% and 18%, using a self-report design of non-incarcerated youth. Napier & Pratt (1982) investigating rural adolescent drug use found a weak but consistent relationship between the experience of personal problems and increased drug use in a sample of volunteer high school seniors and college freshmen. The substantially higher rates of alcohol and drug abuse (80%) in the current study is likely a reflection of a more troubled population than was used in the prior research. It is not known if the 20% who did not evidence abuse used alcohol or drugs.

Two other clinical variables, sexual abuse history and evidence of thought disorder, warrant discussion because of the statistical significance that was obtained by correlation with criminal variables. However, consideration must also be given to the small number of subjects with these conditions (n=10, n=12 respectively). A significant relationship existed between the diagnosis of Conduct

Disorder using both DSM-III and DSM-III-R criteria, and a history of sexual abuse, as well as evidence of thought disorder. Both of these variables were also found to have low but significant relationships with the Juvenile Seriousness Index, the commission of a Felony A, and the number of Felony A. Because both of these variables have serious psychiatric/mental health implications, further investigation is warranted.

The family variables reflected the stepparent home to be the most prevalent family constellation in the sample (40%), followed by the single parent home (20%). Only 12.9% of the subjects had last lived with both natural parents. This pattern is made more complex clinically by a parental supervision/control picture primarily characterized as inconsistent (52.9%) or non-existent (37.1%). Only 10% of the subjects came from homes where parental supervision appeared adequate. These findings add to the work of Natalino (1982) who found a greater proportion of delinquency in rural youth from homes characterized as non-nuclear.

The delinquency pattern evident from the records indicates that the majority of crimes committed by the subjects were primarily crimes against property which is consistent with the majority of prior research (Forslund, 1977) with rural delinquent samples. Only 5 subjects had committed crimes against persons. The mean Juvenile Seriousness Index was 33.49 indicating that the subjects committed crimes that on the average could have warranted up to 33.49 years of incarceration. It is also noteworthy that 47.1% of the subjects had never committed a Felony A offense.

The Relationship of Conduct Disorder to the Clinical and Legal Variables

Conduct Disorder diagnoses were considered in the study using both the DSM-III and the DSM-III-R criteria which are substantially different. Of the predicted categories of significance (neglect, IQ below 85, and learning disability), only learning disability was significantly associated with both diagnostic classifications. DSM-III categories were significantly related to sexual abuse, neglect, thought disorder and learning disability. The collapsed variable of learning also showed significance. DSM-III-R categories resulted in significant associations with sexual abuse, thought disorder and alcohol abuse. The significant relationship of learning disabilities with delinquency is consistent with prior research (Perlmutter, 1987).

When the subcategories of the Conduct Disorders were explored in relationship to the delinquency variables few significant differences were revealed among either the DSM-III or DSM-III-R classifications. Only the variable most serious crime, differed statistically significantly between the DSM-III subcategories. This was not true for the DSM-III-R classifications. Statistically significant differences were evident between the DSM-III socialization factors and 1) the commission of at least one Felony A crime and 2) the Juvenile Seriousness Index. No significant differences were found with the aggression factors.

These finding contradict those from the work of King (1987) who found significant differences between the Conduct Disorders

subcategories using DSM-III and the following criminal indicators: age of first offense, number of juvenile offenses, the most serious juvenile offense and the Juvenile Seriousness Index. King also found significant differences between the socialization factors and the age of first offense, the number of offenses, and the Juvenile Seriousness Index. Additionally King found significant differences between the DSM-III aggression factors and the number of offenses, the most serious offense and the Juvenile Seriousness Index with aggressive juveniles being younger and committing a greater number of crimes with greater seriousness.

The comparison between the two studies could indicate that the socialization and aggression categories may be more useful clinically than the actual diagnostic groupings. The differences could also be due to the different distribution within the subcategories between the two studies, the higher level of criminal activity in the urban sample and/or the substantial difference in sample size.

The Relationship of Clinical Variables to Criminal Variables

Each of the clinical variables (other than Conduct Disorder) was examined in relation to the criminal variables. The analysis revealed significant relationships between a history of sexual abuse and the commission of a more serious crime, the commission of a Felony A, a higher number of Felony A crimes committed, and the Juvenile Seriousness Index. Significant relationships were also found between the collapsed category of abuse and the commission of a Felony A; between evidence of thought disorder and more offenses

and a higher Juvenile Seriousness Index; and between evidence of drug and/or alcohol abuse and a higher number of offenses.

The relationship between the Conduct Disorders, substance abuse and the Juvenile Seriousness Index was also explored. Since 80% of the sample subjects demonstrated evidence of substance abuse, the small number of non-abusers (n=11) made it difficult to assess for differences or establish relationships. Both the Socialized Aggressive (n=16) and the Socialized Nonaggressive (n=21) substance abusers had mean Juvenile Seriousness Indices greater than the sample mean. Both substance abusers and non-substance abusers who met the criteria for Undersocialized Aggressive had average index lower than the total sample mean. Using the DSM-III-R criteria, the Group Type substance abusers (n=27) had a Juvenile Seriousness Index greater than the mean. The Undifferentiated type had a lower mean. A relationship between the Juvenile Seriousness Index, substance abuse and the Conduct Disorder classification of DSM-III and DSM-III-R was not established.

Comparison of the Rural and Delinquent Samples

Interesting differences between the current study findings and the original study findings were readily apparent, however all comparisons must be considered in view of the differences in sample size, n=70 for the rural sample and n=221 for the urban sample, and the number of years that had passed between the incarceration time reflected in the King study, 1977 and the incarceration time reflected in the current study, 1984.

Most notable was the different distribution of DSM-III Conduct

Disorder classifications and the substantially lower Juvenile Seriousness Index for the rural subjects. The rural sample reflects a much higher level of socialization (60.1% versus 19.6%) and a lower level of aggression (57.1% versus 70.9%). These findings differ from Kashani, Horowitz & Daniel (1982) who found 94% of their rural sample to be socialized and 62.5% to be aggressive. However it is important to note that despite the differences in the subcategory distributions, few subjects in either study had a conduct disorder alone, or a conduct disorder with only abuse as a complicating factor. In both studies, the majority of subjects had at least one other clinical disorder and, for most of them, this was complicated by abuse as well.

The higher level of socialization in the rural sample may in part be a reflection of the differences in the urban and rural patterns of family life. The predominant prior living situation for the rural sample was a stepparent home (40%) whereas the single parent home was the predominant family constellation for the urban sample (46.2%). The stepparent predominance could also account for the difference between the two samples with respect to the parental ability to supervise and control. In this aspect, inconsistency was the predominant rural pattern (52.9%) whereas non-existent supervision and control dominated the urban sample (67.9%).

These differences may also contribute to the rural/urban rates of abuse reflected in the samples. The urban subjects had a much higher incidence of neglect (52.5%) than the rural subjects (20%). This pattern of neglect in the urban settings may be considered in

relation to the single parent homes, the absence of supervision and the possible resulting undersocialization reflected in the King (1987) sample. The current study also reflected a much higher rate of physical abuse (38.6% versus 23.1% for urban subjects) and a much higher rate of sexual abuse (14.3% versus less than 1%). It is conceivable that the higher rates in the current study are indicative of the increased awareness by treatment providers of the need to investigate physical and sexual abuse histories and do not reflect substantial clinical differences between the subjects.

Delinquency differences between the rural and urban subjects are also notable. Since the majority of the rural sample had reached the age of 18 by the time of the study comparisons could be made with the urban sample. Seventy percent of the urban subjects had committed at least one Felony A offense compared with 53% of the rural subjects and had a mean total offense number of 12.38 compared with 9.27 for the rural subjects.

Anecdotally, it is also noteworthy that the crime classification of Felony A for the rural subjects may distort the results. Although data regarding the nature of crimes committed was not systematically tracked, it was noted that Felony A was frequently a crime of breaking and entering. However, for the rural subjects this could sometimes be of a relatively minor nature such as breaking into an garage and stealing a bicycle. Additionally, a number of subjects had been on, what was known in the record, as a crime spree. When the crime spree happened to result in Felony A charges, this inflated the Juvenile Seriousness Index. One subject

who had " been on a crime spree" was also a non-substance abuser in the Socialized Aggressive categories. This one subject brought up the mean Juvenile Seriousness Index for this group noticeably, therefore complicating the understanding of the hypothesis regarding the relationship between Conduct Disorder, substance abuse and the Juvenile Seriousness Index. It is not known if similar problems arose with the urban sample. It does, however, indicate a need to further explore the validity of the Juvenile Seriousness Index as a measure of delinquency since there is evidence that it can be inflated by a single incidence of criminal behavior that may not be reflective of a criminal pattern.

The Viability of Risk and Vulnerability

From the findings of the current research a number of variables appear to be either risk or vulnerability factors for the development of delinquency in a rural population. Considering vulnerability as constitutional factors, learning problems could most predictably be a vulnerability factor which is consistent with prior research (Perlmutter, 1987). Additionally, when considered from a biological orientation, thought disorder, depression and drug/alcohol abuse could also be construed as vulnerability factors.

The various forms of abuse, with sexual abuse most notable, appear to constitute risk factors for delinquency. The family constellation consisting of a stepparent home characterized by an inconsistent ability to provide supervision and control are also indicated as risk factors for delinquency in the rural population. Drug and/or alcohol use, thought disorder and depression, if

considered from a non-biological orientation would also be considered risk factors for delinquency.

Continued multidimensional research is needed to validate the above classifications. Additionally, thoughtful consideration must be given to the classification of factors that can be considered risk or vulnerability depending upon one's theoretical orientation.

Further research

The generalizability of this research is limited by the retrospective design, the lack of consistency in the juvenile records, the limited reliability and validity testing, and the small sample size. The selection of a single rural county also limit generalizability as the selected county may not be reflective of other rural counties. However, this study does support the multidimensional conceptualization of juvenile delinquency as well as the need to consider rural delinquents apart from their urban counterparts.

As this is the second study using the instrument and process developed by King (1987), the next logical research would be reliability and validity testing of the instrument, the process and the conceptualization of the Juvenile Seriousness Index. Additionally, a concurrent prospective study to obtain direct assessment data for clinical diagnosis of juvenile delinquents would be beneficial to establish concurrent validity. Finally, continuing efforts to establish the validity of the Conduct Disorder diagnosis will be helpful to future juvenile delinquency research. The results obtained by King (1987), Kashani, Horowitz & Daniels (1982)

and the current study suggest the socialization/aggression dimension which has been reconceptualized in the DSM-III-R may in fact be more useful than previously thought.

CONCLUSIONS

A multidimensional description of a rural delinquent population has been provided by this research. The predominance of the Conduct Disorder in the juvenile delinquent population, despite its diagnostic limitations, has been further supported. Additional evidence has been obtained indicating the presence of abuse, neglect and learning disabilities in the juvenile delinquent population. The potential relationship of sexual abuse histories and thought disorder has raised questions for further investigation. The degree of socialization and aggression in the rural delinquent population has been examined and demonstrates support for prior research.

The relationship between clinical and criminal variables remains complex and warrants continued investigation. Risk and vulnerability as a conceptual framework appears to be a viable option. Although this research does not lend itself to generalizability, one could begin to hypothesize that factors from this and prior research such as physical abuse, neglect, sexual abuse, learning disability, parental inconsistency in supervision and control and a non-nuclear family constellation comprise risk/vulnerability factors warranting further research. However, multidimensional research must continue and must be replicated before risk and vulnerability factors can be clearly established.

Most notable from this research is the emergence of those

factors which potentially differentiate rural and urban delinquents. The rural/urban differences comparisons that revealed the rural delinquents' individual characteristics of increased socialization, decreased aggression, lower Juvenile Seriousness Indices, and family characteristics of fewer single parent homes and more stepparent homes in conjunction with a greater degree of parental inconsistency and less neglect, are of much interest both from a clinical and a program planning perspective.

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Appendix A

Guidelines for Rating the Clinical Variables

The guidelines below regarding use of the terminology 'evidence of' are from the original study by King (1987). As King (1987) wrote, "the terminology 'evidence of' is utilized in recognition of the fact that data may not have been fully available and prevented a more accurate diagnostic determination" (p.41).

-Evidence of a thought disorder was determined positive if the file indicated a disturbance of thoughts to such an extent that the subject seemed out of contact with reality.

-Evidence of depression was determined present if the subject met the diagnostic category for any of the depression diagnosis categories for major affective disorder.

-Evidence of drug or alcohol abuse was judged positive if the file indicated frequent and excessive use or binges.

-Evidence of I.Q. below 85 was established if the file reflected a measured I.Q. below 85. This number was chosen to coincide with much of the prior research.

-Evidence of an attention deficit disorder was judged positive if either a formal diagnosis was provided within the context of an evaluation, or if the social and school data consistently reflected evidence of developmentally inappropriate inattention, impulsivity and hyperactivity.

-Evidence of a learning disorder was judged positive if either a formal diagnosis was provided within the context of an evaluation, or if the social and school data consistently reflected learning difficulties not accounted for by I.Q., attention deficit disorder or lack of attendance in school.

-Evidence of one of the four DSM-III categories of the Conduct Disorder (Undersocialized Aggressive; Undersocialized Nonaggressive; Socialized Aggressive; Socialized Nonaggressive) was based on the extent of socialization and aggression as identified in the DSM-III. The subject was judged undersocialized if the file reflected a failure to establish normal degrees of affection, empathy or bonding, as exhibited by lack of peer group friendships, lack of guilt or remorse, a style of blaming or informing on companions, and a lack of concern for others. Aggression was established when subjects consistently violated the rights of others, either through physical violence to persons or property, or theft involving confrontation with the victim. Nonaggression was established when the basic rights of others were violated through violation of rules, lying, running away, or stealing that did not involve confrontation with the victim.

-Evidence of one of the three DSM-III-R categories of Conduct Disorder (Group Type, Solitary Aggressive Type and Undifferentiated Type) was based upon the evidence of a persistent pattern in which basic rights of others were violated and there was violation of age appropriate societal norms or rules. The conduct disturbance had to be at least six months in duration and to meet the DSM-III-R criteria for diagnosis. To be considered Group type the conduct problems occur mainly as a group activity, with or without aggression. The Solitary Aggressive type displays aggressive behavior in a solitary manner. The Undifferentiated type does not meet the criteria for either group or solitary aggressive.

Appendix B

Data Collection Sheet

Revised Data Sheet 6/88

1-2 Code #_____ 3DOB_____

4 Race

1. Cauc _____
2. Black _____
3. Hispanic _____
4. Asian _____
5. Nat.Am _____

1 = YES

2 = NO

5-6 Age of First Offense

1.<10_____
2. 10_____
3. 11_____
4. 12_____
5. 13_____
6. 14_____
7. 15_____
8. 16_____
9. 17_____

6-7 Age of Commitment to MSB

1.<10_____
2. 10_____
3. 11_____
4. 12_____
5. 13_____
6. 14_____
7. 15_____
8. 16_____
9. 17_____

Judge_____

8. Living Situation at time of Commitment

1. With two parents _____
2. With one parent &steppar. _____
3. With single parent _____
4. Foster _____
5. Other _____

9. Extent of Supervision/Control by Parents

1. Adequate _____
2. Nonexistent _____
3. Alternating/Inconsistent _____

10. Abuse Hx Emotional _____

11. Abuse Hx Physical _____

12. Abuse Hx Sexual _____

13. Abuse Hx Neglect _____

14. Completion of GED YES _____
NO _____

School Status upon Admission to MSB
Attending _____
Not Attending _____

15. Conduct Disorder DSMIII

1. S/A _____
2. U/A _____
3. S/N _____
4. U/N _____

Info Rating _____

16. Conduct Disorder DSMIII-R

1. Group _____
2. Solitary _____
3. Undifferentiated _____

4. Mild _____
5. Moderate _____
6. Severe _____

17. Thought Disorder _____

18. Depression _____

19. Drug Abuse _____

20. Alcohol Abuse _____

21. D/A Use _____

22. Intelligence <85 _____

23. Attention Deficit Disorder _____

24. Learning Disorder _____

25. Other _____

1 = YES
2 = NO

Psych.Eval

Yes No

JUVENILE OFFENSES

26-27. Number of Offenses _____

28. Most Serious Offense

1. Felony A _____
2. Felony B _____
3. Felony C _____
4. Misdemeanor A _____
5. Misdemeanor B _____
6. Misdemeanor C _____

Type of Offenses:

29-30.	Felony A	_____ X 20
31-32	Felony B	_____ X 10
33-34	Felony C	_____ X 5
35-36	Misdemeanor A	_____ X 1
37-38	Misdemeanor B	_____ X.05
39-40	Misdemeanor C	_____ X.01
41-42	Status Offenses	_____ X.001

43-44-45 Seriousness Index _____

46. Remand:

Yes _____

No _____

The Juvenile Seriousness Index

The Juvenile Seriousness Index (JSI) was developed by King (1987). All crimes committed were classified as either felonies; A,B,C misdemeanors; A,B,C or status offenses. The judicial penalties associated with the various crime classifications are as follows:

Felony A - up to 20 years imprisonment

Felony B - up to 10 years imprisonment

Felony C - up to 5 years imprisonment

Misdemeanor A - up to 1 year imprisonment

Misdemeanor B - up to 6 months imprisonment

Misdemeanor C - up to 30 days imprisonment.

King (1987) generated a weighting system for the seriousness index that is equal to the legal penalties. To accomplish this each offense was given a number of points as follows:

Felony A - 20 points

Felony B - 10 points

Felony C - 5 points

Misdemeanor A - 1 point

Misdemeanor B - 0.5 point

Misdemeanor C - 0.1 point

Status Offense - 0.01

King (1987) gave the status offense the arbitrary score of 0.01 because no maximum sentence is associated with it. This point system allowed for the development of a continuous scale.

To establish the Juvenile Seriousness Index, the points were added up for each offense committed.

Abstract

Title: An Exploration of Selected Mental Health and Legal Variables in a Rural Delinquent Population

Author: Melinda Ann Mowery

Approved:_____

Mary Catherine King, R.N., PsyD. Thesis Advisor

The purpose of this retrospective, descriptive study was to provide a description of a rural delinquent population and to compare the results with a description of an urban delinquent sample. This study was a partial replication of a larger study by King (1987). Thirteen clinical variables and three legal variables were explored. The mental health variables were: family capacity to monitor, various forms of abuse, evidence of; a thought disorder, affective disorder, substance abuse, conduct disorder, lower intellectual functioning, learning disorder or attention deficit disorder. The legal variables were number and severity of crimes, age of first offense and remand status. Basic demographic information was also collected.

The data were collected using Juvenile Justice records of 70 randomly selected male subjects who were incarcerated at the MacLaren School for Boys (MSB) in Woodburn, Oregon during 1984. Data was collected using a tool developed by King (1987). This was

done on-site at MSB in July, 1988.

Four research questions resulted in six hypotheses that were tested using both parametric and nonparametric statistics. The majority of subjects (n=66) met the criteria for a Conduct Disorder using both the second and third editions of the Diagnostic and Statistical Manual of Mental Disorders. When the Conduct Disorder was assessed in relation to the other clinical variables, a statistically significant association occurred with the variables of neglect, sexual abuse, learning disorder, and thought disorder. When the relationship between the Conduct Disorder and the legal variables was explored, significant association was evident only for conduct disorder and the most serious crime committed ($X2=19.039$ $p < .025$).

The relationship between the clinical variables and the legal variables were explored. A history of sexual abuse, evidence of thought disorder and substance abuse were significantly related to clinical diagnosis. Substance abuse emerged as a problem for 80% of the subjects. This variable was explored in relationship to the Conduct Disorder and the seriousness of crime index. Although no clear relationship emerged, substance abuse demonstrated a trend for relationship to an increased severity of crimes for subjects who are rated as socialized.

Most notably, the comparison of the rural sample to the urban sample resulted in a number of significant differences. The rural subjects were more likely to come from a step-parent home than a single parent home and were less likely to have a history of

neglect. The parenting style evident was more likely to be characterized as inconsistent rather than non-existent. The rural subjects had less severe crime histories and evidenced a greater degree of socialization. They also were noted to have a much higher rate of substance abuse.

The retrospective design and small sample size limit generalizability. Additionally, the data collection process and instrument requires further reliability and validity testing. This study provides evidence for the presence of multiple problems in rural juvenile delinquents and points to the need for further exploration of this population from multidimensional perspectives. It also suggests that rural and urban delinquent subjects may substantially differ and such differences require further exploration.

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