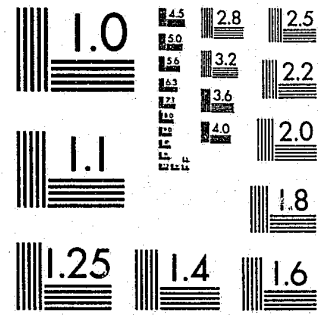


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24 Juvenile Murderers: A Comparison Study

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Neuropsychiatric and Family Characteristics of
24 Juvenile Murderers: A Comparison Study

The purpose of this paper is threefold: 1) to compare the results of neuropsychiatric evaluations performed on 9 juvenile murderers prior to their having committed murder, with the results of similar neuropsychiatric evaluations performed on 15 other juvenile murderers subsequent to their homicidal acts, 2) to document the combination of psychiatric, neurological, and family factors consistently present in the clinical records of all 24 adolescent murderers: 3) to compare the characteristics of these 24 murderers with a sample of 18 formerly incarcerated delinquents who had been clinically evaluated in adolescence and who, by age 25 years, had not been arrested for violent crimes. We shall also discuss some of the special difficulties inherent in gathering relevant clinical data after a murder has been committed.

In a previous paper, we reported the biopsychosocial characteristics of 9 adolescents who, subsequent to neuropsychiatric evaluation, went on to commit murder. (1) We found that a combination of neuropsychiatric and experiential factors distinguished the murderers from the comparison group. We found that 75% of these juvenile murderers had psychotic symptoms, a history of severe head injury and/or major neurological impairment, a history of abuse, a psychotic or psychiatrically hospitalized first degree relative, and a history of childhood violence, in

contrast to 9% of the comparison group. ($\chi^2 = 9.9, p < .005$) We wondered whether other juvenile murderers had similar patterns of intrinsic and experiential vulnerabilities, and, if so, whether these characteristics would be evident from neuropsychiatric evaluations performed subsequent to their acts of murder.

The Literature:

There is a controversy in the literature regarding the prevalence and severity of psychopathology in murderers. Estimates of the prevalence and nature of psychopathology have often depended on the samples of offenders chosen for study. McNight (2) reported that 77% of the 100 murderers he studied were psychiatrically impaired, and that 55% were unfit to stand trial. His sample, however was chosen exclusively from a prison hospital. On the other hand, Wolfgang reported that only 3% of the murderers in the Philadelphia prisons were insane (3). Clearly, estimates of psychopathology depend on the definitions of mental illness that are used, the discipline of the investigators, and the thoroughness of the clinical evaluations.

If the literature on adult murderers is equivocal, the literature on juvenile murderers is sparse. Most studies, including our previous study of 9 murderers, report small numbers of cases (4-14), and the majority of these studies focus on psychodynamic issues. One of the largest and most clinically rich studies was Loretta Bender's study of 33 homicidal children and adolescents (15) in which she

identified a multiplicity of neurological and psychiatric disorders in her sample. Unfortunately, this study did not have a comparison group of nonhomicidal children and adolescents with which to compare the 33 murderers.

The purpose of this study is to report the results of the neuropsychiatric evaluations of 24 juvenile murderers and to compare their characteristics with those of 18 formerly incarcerated delinquents who did not commit murder as juveniles and did not commit violent crimes as adults.

Method:

Our total sample of juvenile murderers consisted of our previous sample of 9 adolescents (1) and a new sample (N = 15) of all of the juvenile murderers (i.e. those who committed murder at age 21 years or before) who had been psychiatrically evaluated by the senior author subsequent to their homicidal acts but prior to the author's analysis of data from the first study. The purpose of choosing juvenile murderers who had been evaluated before the previous study was conducted was to insure that clinical findings from the first study would not influence later evaluations and color the findings in the current study.

Of these 15 subjects, 6 were evaluated while incarcerated in a juvenile correctional facility, 1 was evaluated when psychiatrically hospitalized on an adolescent ward after allegedly accidentally shooting his brother, and 4 were evaluated while on a prison hospital psychiatric

unit. They were being detained subsequent to their homicidal acts in order to determine competency to stand trial as adults. Four others were evaluated in a variety of different detention facilities at the request of their individual public defenders. There were 2 girls and 13 boys in the new sample. Their ages ranged from 13 to 21 years, their average age was 15.7 years; their median age was 15 years.

The comparison sample consisted of 18 formerly incarcerated delinquent boys who had been neuropsychiatrically evaluated during adolescence as part of a clinical study of the neuropsychiatric characteristics of 97 incarcerated delinquents. (16) These 18 subjects, according to police and FBI records, had not been arrested for a violent crime by age 25 years. They were also part of the comparison group of 24 subjects used in our previous study of 9 juvenile murderers. (1) By the time of the present study, 6 of the original 24 comparison subjects were disqualified from the comparison group because more current and complete data indicated that they had committed one or more violent crimes.

Our clinical data on the 15 murderers consisted of all available neuropsychiatric data antedating and post-dating their homicidal acts. The results of comprehensive psychiatric and neurological data including detailed medical and family histories were available on 14 of the 15 subjects. The results of neurological evaluations were missing on 1 of these subjects.

Clinical data for the 18 comparison subjects consisted of psychiatric evaluations performed during middle adolescence, which included detailed medical and family histories. In 16 of these cases, data from neurological evaluations were also available. The nature of these psychiatric and neurological assessments has been described elsewhere (16).

Presence or absence of the following neuropsychiatric signs and symptoms were recorded: auditory, visual, or olfactory hallucinations; loose rambling, illogical, or concrete thought processes; paranoid delusions; extreme sadness or depression; suicidal behavior; cruelty to animals; inability to stop fighting; frequent headaches; loss of consciousness; abnormal EEG, other evidence of seizures, or other signs of major or minor neurological abnormalities. Symptoms and signs were considered positive if mentioned explicitly in the records and an example was given of them. Because symptoms may exist but not be noted, this method would underestimate the extent of psychopathology. We also recorded relevant medical data, including evidence of perinatal problems and a history of any illnesses or accidents affecting the CNS.

Information regarding the subjects' families was recorded including family constellation, occupations, and specific psychosocial problems, such as psychiatric hospitalizations, extreme violence within the family, and child neglect or abuse. A child was considered to have been

abused by his parents or guardians if he had been punched; beaten with a stick, board, pipe, or belt buckle, beaten with a belt or switch other than on the buttocks; or deliberately cut, burned, or thrown downstairs, or across a room. A child was considered not to have been abused if he had been struck with an open hand or beaten with the leather part of a belt or switch on the buttocks only. In addition, we recorded the timing and nature of the subjects' previous aggressive acts and delinquent offenses.

Results:

When we compared the new sample of 15 juvenile murderers with the previous sample of 9 juvenile murderers, we found that they were remarkably similar to each other. As can be seen in Table 1, the 2 groups were similar in terms of 1) head injury, 2) major neurological impairment, 3) psychotic symptomatology, 4) a history of having suffered physical abuse, and 5) a history of extraordinary family violence.

We found that we were unable to compare the prevalence of family psychosis in the 2 groups because data regarding family psychopathology were less clear in the records of juveniles evaluated subsequent to their having murdered. In the first sample, all 9 juveniles had clinical histories of a first degree relative who had been either clearly psychotic, or psychiatrically hospitalized. In the current sample of 15 juvenile murderers, only 3 had parents known to

have been psychiatrically hospitalized. In addition 8 had parents with histories suggestive of severe psychopathology, however whether or not the parents were psychotic could not be determine by available data. For example, one father had episodic hallucinations, was suspected of having committed incest, and eventually married his daughter's teen-aged cellmate when his daughter was removed from his home; two mothers were repeatedly suicidal; one mother was described as brain damaged, violent, suicidal, and homicidal toward the subject; one mother had made a suicide attempt and also became violent under the influence of alcohol; and one mother was known to have had syphilis during pregnancy with the subject, to have been hypothyroid during this pregnancy, and to have been extremely violent with her husband and children; one mother had seizures and/or fainting episodes, and, on several occasions, the subject discovered her, lying unconscious on the floor, when he came home; and one mother, given custody of the subject, abandoned him when he was 2 years old, had multiple extramarital affairs, had a problem with alcohol, and moved so frequently she could not be located by the police. Thus, although family histories suggested that these 15 juvenile murderers came from severely disturbed households, documentation of psychopathology was not good enough to permit statistical comparison with the previous sample on this variable.

Data regarding household violence in all 3 samples, the 15 new juvenile murderers, the previous sample of 9 juvenile

murderers, and the 18 comparison subjects were more complete. We therefore decided to use extreme violence within the family rather than parental psychosis and/or psychiatric hospitalization as a measure of family dysfunction.

Of the new sample of 15 juvenile murderers, 11 came from extraordinary violent households, compared to 6 of the 8 subjects on whom data was available in the previous sample of juvenile murderers, an insignificant difference. For example, one child was raised in a series of abusive foster homes and orphanages after his mother and possibly his father too were shot to death; one father tried to choke the subject's mother, and she, in turn, was reported to have chased the father with a knife; one step-brother committed homicide; and one father was allegedly shot and stabbed on several different occasions, ostensibly as a result of violent alcoholic brawls.

It was also difficult to assess degrees of previous juvenile violence in the 15 new subjects. We found that, of the 15 new subjects, there was evidence in their records that 14 had been aggressive during childhood and there was some evidence that the 15th had been in fights at school and had destroyed property. Here again, however, the data on early aggressive behaviors of these 15 adolescents was less clear and straightforward than in the previous study. Indeed, in several instances, the initial histories given by parents and subjects suggested that the murder committed by the subject was the first and only aggressive act that the subject had ever committed. Only a review of school records

and lengthy interviews with the subject and other family members brought to light a history of significant early aggressive behavior in almost every case.

For example, one youngster who had gone on a shooting rampage and had killed and wounded several people was, at first, described as a model of good behavior. Days of interviews with relatives and neighbors, however, revealed that this youngster had a history of shooting and dismembering dozens of animals as well as a history of entering an abandoned school and smashing its windows. At least 3 other youngsters whose parents insisted that their children had never been aggressive prior to committing the murders in question, in reality had histories of multiple suspensions from school for fighting. Thus, the secrecy with which behavioral information was guarded often made it impossible to gauge the degree of their early violence or to compare this sample of 15 juvenile murderers statistically with the 9 in the previous sample or with the 18 comparison subjects on this dimension. Suffice it to say that, clinically, the sample of 15 seemed behaviorally similar to the previous sample of 9 murderers.

Given the clinical similarities between the characteristics of the 9 murderers in our previous study and the current 15 juvenile murders, for purposes of comparison with the nonhomicidal sample of 18 former delinquents, we combined the juvenile murderers into one sample of 24 juvenile murderers.

We then compared the 24 juvenile murderers with the sample of 18 comparison subjects. Table 2 illustrates the differences between the 2 groups. The most significant variables distinguishing the two groups were major neurological impairment and psychotic symptomatology. Of note, physical abuse did not distinguish the groups. However family violence did distinguish significantly the murderers from the other delinquents. When we compared the average number of adverse factors for each group, the murderers had significantly more vulnerabilities. That is, the average for the murderers was 3.375 vs. 2.222 for the comparison group. ($t = 3.311, p = .002$).

We found, that a particular combination of these variables distinguished the murderers from the comparisons. That is, the combination of head injury, major neurological impairment, psychotic symptoms, and either a history of physical abuse or a history of extreme family violence markedly differentiated one group from the other. Of the 24 murderers, 15 had this constellation of vulnerabilities, compared with only 3 of the 18 comparison subjects ($\chi^2_y = 7.793, p < .01$).

We wondered to what extent this combination of variables was predictive of group identity. We therefore conducted a discriminant function analysis using head injury, major neurological impairment, psychotic symptoms, and a history of abuse or family violence as independent variables and membership in the murderer or comparison group

as outcome variables. These variables predicted group identity 76% of the time for the murderers and 75% of the time for comparison subjects.

Discussion:

It would seem from our data, that young murderers have a combination of neuropsychiatric and experiential characteristics that distinguish them from other incarcerated delinquent youngsters. These characteristics consist of 1) a history of central nervous system injury 2) evidence of central nervous system impairment 3) episodic psychotic symptomatology and 4) a history of physical abuse, of family violence, or of both. Our clinical data also suggest that a history of previous aggressive behavior is extremely common.

We stress that the signs and symptoms characteristic of these homicidal youngsters rarely fell into neat, conventional diagnostic categories. Their psychotic symptoms such as visual or auditory hallucinations and paranoid misperceptions were sporadic. Therefore a diagnoses of schizophrenia, at least in adolescence when they were evaluated, was rarely justified. Similarly, their neurological impairments alone (e.g. history of grand mal seizures, positive Babinski sign) could not account for their violent acts. Rather, these vulnerabilities, in the context of violent abusive households, gave rise to extraordinarily violent acts by the subjects.

Our comparison of 9 juvenile murderers evaluated prior to committing murder with the 15 evaluated subsequent to committing murder brought to light some of the difficulties inherent in evaluating youngsters who have already committed murder. That is, both the youngsters and their families are so eager to protect each other that it is difficult to obtain an accurate picture either of family psychopathology or of children's previous violent behaviors. Children and their parents are so fearful about incriminating themselves in any way, that they make it almost impossible for the clinician to piece together a comprehensive picture in the time usually allotted to such evaluations. It is, therefore, essential, in such cases, to obtain information from school records, other relatives, friends and acquaintances of the subject, and to interview the subject on several occasions over time, if an accurate, relevant, useful history is to be obtained.

The findings of this study again raise the difficult question of prediction. Does the finding of a constellation of head injury, neuropsychiatric impairment, a history of physical abuse, and a history of extreme family violence in already aggressive delinquents justify a prediction of future violence and, therefore, a need for intervention?

We know that, to date, clinicians are notoriously poor at predicting violence accurately. (16) The prediction of violence from clinical symptoms alone runs the risk of over

prediction and needless stigmatization.

This study, in contrast to the work of others, focuses on neuropsychiatric and family factors of delinquent youngsters who, by and large, have already manifested aggressive behaviors. When the constellation of severe CNS injury, neurological impairment, psychotic symptoms, and family violence and/or abuse are identified in a delinquent child who has already shown aggressive behaviors, it seems safe to conclude that, in the absence of appropriate intervention, such a child will probably go on to commit further violent acts. Were the question of future violence not even an issue, such a child would still deserve appropriate assistance in the interest of his own adequate functioning and survival. This study, with its comparison sample, provides us with the possibility of determining whether, in time, those subjects in the comparison sample who share many of the characteristics of the juvenile murderers do, themselves, become violent.

In the past, studies of the youthful characteristics of seriously antisocial individuals tended to focus primarily on immutable characteristics such as numbers and nature of previous antisocial acts and/or race as predictors (17, 3). This study differs from those in that it focuses on biopsychosocial factors, each of which has implications for potentially effective treatment.

Murder is the most serious of all crimes. The finding of a constellation of identifiable intrinsic and environmental vulnerabilities characteristic of children who murder challenges us to develop programs to identify and address these potentially treatable vulnerabilities.

Table 1. Comparison of Clinical Characteristics of 15 Juvenile Murderers with a Previous Sample of 9 Juvenile Murderers.

Vulnerability Variables	<u>New 15 Juvenile Murderers</u>			<u>9 Previous Juvenile Murderers</u>			Tests	p Values
	With data Available	No. with Variables		With data Available	No. with Variables			
		N	%		N	%		
Head Injury	15	14	93.33	9	9	100	Fisher's exact	.62
Major Neurol. Impairment	14	9	64.29	7	7	100	Fisher's exact	.10
Psychotic Symptoms	15	13	86.67	9	9	100	Fisher's exact	.38
Physical Abuse	15	10	66.67	8	7	87.5	Fisher's exact	.29
Family Violence	15	11	73.3	8	6	75	Fisher's exact	.67

Table 2. Comparison of Clinical Characteristics of 24 Juvenile Murderers with 18 Comparison Subjects.

Vulnerability Variables	24 Juvenile Murderers			18 Comparisons			Tests	p
	With data Available	With Variables		With data Available	With Variables			
		N	%		N	%		
Head Injury	24	23	95.83	18	15	83.33	Fisher's exact	.2023
Major Neurol. Impairment	21	16	76.19	16	3	18.75	Fisher's exact	.0007
Psychotic Symptoms	24	22	91.67	18	10	55.56	Fisher's exact	.009
Physical Abuse	23	17	73.91	18	11	61.11	Fisher's exact	.289
Family Violence	23	17	73.91	18	7	38.98	Fisher's exact	.0289
Average No. of Vulnerability Variables	24	3.375		18	2.222		t test = 3.310	.002

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