BATTERY AND MURDER DEFENDANTS: A PSYCHIATRIC

AND CRIMINOLOGICAL STUDY

Preliminary Report

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Conventions Adopted: If no test of statistical significance is reported in the text, the test was conducted but the association or difference in means was not statistically significant.
   Note that the Tables are separately numbered for each of the above-listed sections of this report.

INTRODUCTION

This is a preliminary report in the midst of ongoing data analysis. An effort is made to summarize most of the important descriptive information about the sample and data set, but these are not the only data available and are by no means the only analyses to be conducted.

The data were gathered in the course of court-ordered pre-trial evaluations at a maximum security hospital for the "criminally insane." The instruments designed for the study were created by P.E. Dietz, M.D., Richard T. Rada, M.D., and Dennis F. Koson, M.D., who conducted all psychiatric interviews. Barbara Evans, M.S., gathered all social history data and administered the standardized instruments. She has since been retained to analyze the data and draft these preliminary results. William Fisher, Ph.D., of Northeastern University, conducted the multivariate analysis of childhood "predictors" and is expected to continue participation in the project.

The final section of this report notes changes in the expected written products from the study in light of the analytic results obtained thus far.

DATA COLLECTION

All patients admitted to a maximum security hospital (MSH) from January 1, 1980, through June 30, 1980, were screened for possible inclusion in the sample. MSH has been described in two publications* which were made possible through the support provided for this project, both of which are attached as appendices.

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* Dietz PE, Rada RT: Battery incidents and batterers in a maximum security hospital. Arch Gen Psychia 39:31-34, 1982; Dietz PE: Threats or blows? Observations on the distinction between assault and battery. Int. J. Law Psychia 4:401-416, 1981.

MSH is the only maximum security hospital in an industrial state which remains unnamed at the request of the hospital superintendant. Approximately 600 men were admitted to MSH during the six month study period, of whom approximately 325 were admitted for court-ordered pretrial evaluation of their competence to stand trial and/or criminal responsibility at the time of the offense (legal insanity). The psychiatrists conducting the research interviews did so in the course of forensic psychiatric evaluations reported to the referring courts.

Potential subjects were excluded if they did not speak English, since translation was unavailable, or if they had been charged with rape from the same incident as the murder or battery. The reason for this exclusion criterion is that battery is a lesser included offense for every rape and we did not wish to expand this study to include all rape defendants. Fewer than 5% of potential subjects were excluded on these grounds.

All remaining murder defendants were studied (n=25). In no instance was there any doubt in our minds that the defendant had killed another person, though we offered opinions supporting an insanity defense in a few cases.

The sample of battery defendants (n=56) consisted of all remaining defendants charged with battery, assault and battery, assault and battery with a deadly weapon, assault and battery with intent to kill, or assault and battery on a police officer. Thus, this group consisted of individuals charged with offenses akin to the "aggravated assault" category used for the Uniform Crime Reports. For these men, too, there was no doubt that they had committed the acts for which they had been charged, though we

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opinions supporting an insanity defense for a number of them.

Three standarized instruments were administered to all willing subjects. Two of these -- the Michigan Alcoholism Screening Test and the Buss-Durkee Hostility Inventory -- were self-administered unless the subject was unable to read, in which case it was administered by a correctional social worker. The Holmes and Rahe Life Stress instrument was routinely administered by a correctional social worker.

Two other instruments were designed for purposes of the study. The Accused Assaultist Social History Form was filled out by a correctional social worker prior to the psychiatric interview(s), with any incomplete or questionable responses subsequently completed by the psychiatrist.

The second newly designed instrument, the Accused Assaultist Psychiatric History Form, was completed by the interviewing psychiatrist in the course of one or more psychiatric interviews totaling two to 12 hours. The research team met frequently for discussion and review of the progress of data gathering. Raw data on motives and psychiatric diagnosis were discussed by all three psychiatrists for each case to ensure consensus before being finally categorized.

In some instances prior MSH records were available. Data were verified through telephone interviews of victims, witnesses, and family members where necessary and feasible. In some (but only some) cases, arrest information was available from a Department of Probation record. (The state in which the study was conducted is known in the research community for the extremely poor

quality of arrest records available from police sources.) Like-
wise, Department of Correction and Department of Mental Health
records were available for only some of the subjects for whom
such records were known to exist. Police reports of the offense
charged were eventually obtained for almost all of the subjects,
although these are not routinely provided to MSH.* Wherever
official records were available, these were checked against the
defendant's self-report data, and the more credible of the two
sources (not always the official records) was relied upon.

Despite these efforts to maximize the reliability and validity
of data gathered, some variables were the source of continuous
frustration and resulted in incomplete data or data in which we
lack confidence. These variables have been omitted from the ana-
lytic results reported here or are clearly noted as untrustworthy.

We have great confidence in the diagnostic data reported here.
We used the criteria of Feighner et al. (1972) which were a
prototype for the Third Edition of the <u>Diagnostic and Statistical</u>
<u>Manual</u> of the American Psychiatric Association.

We are acutely aware of the absurdity of attempting pretrial
assessments of criminal responsibility (and future dangerousness,
as the courts routinely require) without these data sources.
Nothing can be said in defense of this situation, and the entire
research team eventually resigned from the MSH staff.

DEMOGRAPHIC DATA

The mean age of the murder defendants was 32.2 ± 3.1 (S.E.) years, with a range of 17 to 73 years. The mean age of the battery defendants was 31.4 ± 1.3 (S.E.) years, with a range of 18 to 57 years. The median age for the murder defendants was 25 years, for the battery defendants 30 years.

Educational attainment for each group ranged from 3rd grade to some postgraduate study with a mean of 10.6 ± 0.6 (S.E.) years for the murder defendants and 11.6 ± 0.4 (S.E.) years for the battery defendants.

Table 1 shows ethnic, religious, marital, and occupational status for each group.

The ethnic composition of the sample differs for murderers but not for batterers from national data for all men arrested on comparable charges. The percentages of white and nonwhite battery defendants are consistent with those of aggravated assault arrestees reported in the 1981 Uniform Crime Reports (UCR). The UCR* reports 61.2% of aggravated assault arrestees as white and 37.4% as nonwhite, while our defendants were 66.1% white and 33.9% nonwhite. Our accused murderers, however, showed a different racial distribution from the national statistics--88% white and 12% nonwhite compared with the UCR's findings of 49.8% white and 49.0% nonwhite.

For the sample as a whole demographic variables were independent of type of offense. When marital status is regrouped into three categories (single, married, and previously married), chi-square is significant at the .02 level. $(X^2=8.19; df=2; p=.016)$ One of the six cells, however, had an expected frequency less

than five.

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* 1981 _Uniform Crime Reports_-Table 36 (Arrestees over 18), p. 181.

Table 1. Ethnicity, Religion, Marital Status, and Occupational Level for Murder and Battery Defendants

Variable	Murder Defendants n (Row %)	Battery Defendants n (Row %)	Total n (Row %)
Ethnicity			
White	22 (37.3)	37 (62.7)	59 (100.0)
Nonwhite	3 (13.6)	19 (86.4)	22 (100.0)
	25 (30.9)	56 (69.1)	81 (100.0)
Religion			
Catholic	18 (36.0)	32 (64.0)	50 (100.0)
Protestant	6 (27.3)	16 (72.7)	22 (100.0)
Other	1 (11.1)	8 (88.9)	9 (100.0)
	25 (30.9)	56 (69.1)	81 (100.0)
Marital*			
Single	12 (25.0)	36 (75.0)	48 (100.0)
Married	7 (70.0)	3 (30.0)	10 (100.0)
Separated	4 (40.0)	6 (60.0)	10 (100.0)
Divorced	2 (18.2)	9 (81.8)	11 (100.0)
Widowed	(0.0)	2 (100.0)	2 (100.0)
	25 (30.9)	56 (69.1)	81 (100.0)
Occupational Level			
Never employed	(0.0)	2 (100.0)	2 (100.0)
Unskilled	11 (29.7)	26 (70.3)	37 (100.0)
Skilled	11 (39.3)	17 (60.7)	28 (100.0)

Table 1.   (Continued)

Variable	Murder Defendants n (Row %)	Battery Defendants N (Row %)	Total n (Row %)
White collar	___ (0.0)	6 (100.0)	6 (100.0)
Professional	3 (37.5)	5 (62.5)	8 (100.0)
	25 (30.9)	56 (69.1)	81 (100.0)

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* Marital status immediately preceding the offense. Several of the married murderers were widowed by their offense.

PSYCHIATRIC DIAGNOSIS

Tables 1 - 4 present the frequencies of diagnoses given to patients, including primary, secondary, and tertiary diagnoses. Alcoholism was the most frequent diagnosis, but this was usually a secondary diagnosis (see Table 3). Those individuals categorized as undiagnosed clearly suffered from a mental disorder, but did not meet Feighner criteria.

To clarify whether the sample might properly be described as a sample of mentally disordered violent offenders, the histories of the six individuals receiving no diagnosis were reviewed individually. Both of the battery defendants with no diagnosis had previously been treated at psychiatric facilities. One had three prior hospitalizations. The other had not been treated as an inpatient, but had been previously diagnosed as having epilepsy, which probably accounted for his pretrial referral for psychiatric evaluation. Of the four accused murderers receiving no diagnosis, three claimed total or partial amnesia for the offense. In addition, this defendant, who was charged with the homicide of an 11 year old girl, had no prior arrest history of violent behavior. This combination of factors was most likely responsible for his referral.

Table 2 shows the primary diagnosis for each defendant. The most prevalent primary diagnoses were antisocial personality disorder for accused murderers and schizophrenia for accused batterers. Overall, the battery defendants suffered from more severe forms of mental illness.

Tables 3 and 4 present secondary and tertiary diagnoses for each group. Alcoholism was the most prevalent secondary or tertiary diagnosis for each defendant group. Only one individual,

an accused batterer, was given a fourth diagnosis (affective disorder, depressed).

A Michigan Alcoholism Screening Test (MAST) was administered to each participant in the study. All but three patients agreed to take the test. The scoring results for the MAST are shown in Table 5. Since previous studies have used varying cutoff points between five and ten for a diagnosis of alcoholism (most often five), we have not grouped these values. The mean MAST score for the accused murderers was 20.4 ± 3.6 (S.E.), and the mean score for the accused batterers was 13.4 ± 1.9 (S.E.). This difference in mean MAST scores between groups was not statistically significant $(t=1.88; d.f.=76; p=.064)$.

Contingency table analysis of murderers compared with batterers for the three most prevalent diagnoses showed that the offense charged was significantly associated with the diagnoses of anti-social personality disorder $(x^2=11.29; d.f.=1; p=.0008)$ and schizophrenia $(x^2=16.96; d.f.=1; p=.0000)$, but not alcoholism $(x^2=0.012; d.f.=1; p=.9123)$.

Table 6 shows the distributions of any psychotic disorder by offense charged. Sixteen % of murderers and 73.2% of batterers were diagnosed as suffering from at least one psychotic disorder. This association is statistically significant $(x^2=20.657; d.f.=1; p=.0000)$.

Table 1. Psychiatric Diagnoses by Offense Charged*

Diagnosis	Murderers n (Row %)	Batterers n (Row %)	Total n (Row %)
Schizophrenia	__ (0.0)	28 (100.0)	28 (100.0)
Antisocial Personality Disorder	11 (68.8)	5 (31.2)	16 (100.0)
Affective Disorder (Depressed)	2 (66.7)	1 (33.3)	3 (100.0)
Affective Disorder (Manic)	__ (0.0)	5 (100.0)	5 (100.0)
Affective Disorder (Bipolar)	1 (16.7)	5 (83.3)	6 (100.0)
Alcoholism	14 (32.6)	29 (67.4)	43 (100.0)
Drug Dependence	1 (33.3)	2 (66.7)	3 (100.0)
Sexual Deviation	1 (50.0)	1 (50.0)	2 (100.0)
Organic Brain Syndrome	__ (0.0)	1 (100.0)	1 (100.0)
Schizo-affective Illness	1 (50.0)	1 (50.0)	2 (100.0)
Personality Disorder	2 (28.6)	5 (71.4)	7 (100.0)
Undiagnosed Psychiatric Illness	1 (25.0)	3 (75.0)	4 (100.0)
No Diagnosis	4 (66.7)	2 (33.3)	6 (100.0)
Total	25 (30.9)	56 (69.1)	81 (100.0)

* Note that a single defendant may have multiple diagnoses, so the column totals greatly excede the subsample sizes.

Table 2. Primary Psychiatric Diagnosis by Offense Charged

Primary Diagnosis	Murderers (n=25)	Batterers (n=56)	Total (N=81)
Schizophrenia	—	26	26
Antisocial Personality Disorder	11	5	16
Affective Disorder (Depressed)	—	1	1
Affective Disorder (Manic)	—	3	3
Affective Disorder (Bipolar)	1	3	4
Alcoholism	5	6	11
Drug Dependence	—	—	—
Sexual Deviation	—	—	—
Organic Brain Syndrome	—	1	1
Schizo-affective Illness	1	1	1
Personality Disorder	2	5	7
Undiagnosed Psychiatric Illness	1	3	4
No Diagnosis	4	2	6

Table 3.   Secondary Psychiatric Diagnosis by Offense Charged

Secondary Diagnosis	Murders (n=25)	Batterers (n=56)	Total (N=81)
Schizophrenia	—	2	2
Affective Disorder (Depressed)	1	—	1
Affective Disorder (Manic)	—	2	2
Affective Disorder (Bipolar)	—	1	1
Alcoholism	8	20	28
Drug Dependence	—	1	1
Sexual Deviation	1	1	2

Table 4.   Tertiary Psychiatric Diagnosis by Offense Charged

Tertiary Diagnosis	Murderers (n=25)	Batterers (n=56)	Total (N=81)
Affective Disorder (Bipolar)	—	1	1
Alcoholism	1	3	4
Drug Dependence	1	1	2

Table 5. Michigan Alcoholism Screening Test Score by Offense
          Charged

Score	Murderers n (Column %)	Batterers n (Column %)
Less than 5	8 (32.0)	20 (37.7)
5	1 (4.0)	1 (1.8)
6	—	2 (3.8)
7	—	1 (1.8)
8	—	2 (3.8)
9	—	4 (7.5)
10	—	1 (1.8)
11-20	5 (20.0)	10 (18.9)
21 or over	11 (44.0)	12 (22.6)
Total	25 (100.0)	53 (99.7)

Table 6. Diagnosis of Any Psychotic Disorder* by Offense Charged

Any Psychotic Disorder?	Murderers n (Column %)	Batterers n (Column %)
Yes	4 (16.0)	41 (73.2)
No	21 (84.0)	15 (26.8)
Total	25 (100.0)	56 (100.0)

 * Includes schizophrenia, each type of affective disorder, organic brain syndrome, and schizo-affective illness.

STRESSFUL LIFE EVENTS PRECEDING THE OFFENSE

The Holmes and Rahe Life-Stress protocol lists 56 stressful life events ranging from making a moderately expensive purchase to family death. Table 1 lists the most prevalent stressors experienced in the 6 months prior to the offense by both murder and battery defendants. Seven individuals (one accused murderer and 6 accused batterers) refused to be interviewed for the Holmes and Rahe questionnaire.

The initial analysis suggests that the murder defendants were more likely to experience family and interpersonal relationship problems, while the battery defendants were more likely to experience health and social problems. Only stressors experienced in the six months prior to the offense have been examined thus far. Subsequent analysis may include calculation of overall life stress scores and comparison of these with scores obtained from studies of other populations, including general psychiatric patients, jail inmates, and normal volunteers.

Table 1. Stressors Reportedly Experienced Within 6 Months Prior to Offense by 20% or More of Murder or Battery Defendants

Stressor	Accused Murderers (n=24)		Accused Batterers (n=50)		Total (n=74)	
	n	(Row %)	n	(Row %)	n	(Row %)
1. Change in residence	13	(43.3)	17	(56.7)	30	(100.0)
2. Illness or injury	8	(27.6)	21	(72.4) .H	29	(100.0)
3. New job	8	(44.4)	10	(55.6)	18	(100.0)
4. Moderate purchase	7	(38.9)	11	(61.1)	18	(100.0)
5. Minor law violation	3	(17.6)	14	(82.4) Sf	17	(100.0)
6. Change in sleeping habits	3	(18.8)	13	(81.2) H	16	(100.0)
7. Change in work responsibility	5	(31.2)	11	(68.8)	16	(100.0)
8. Income change	6	(40.0)	9	(60.0) Sf	15	(100.0)
9. Arrest	5	(33.3)	10	(66.7) Sf	15	(100.0)
10. Property Loss	7	(46.7)	8	(53.3)	15	(100.0)
11. Breakup of close relationship	7	(53.8) F	6	(46.2)	13	(100.0)
12. Change in arguments w/spouse*	6	(60.0) F	4	(40.0)	10	(100.0)
13. Accident	5	(55.6)	4	(44.4)	9	(100.0)

* Spouse may have included live-in girlfriend.

BUSS-DURKEE HOSTILITY INVENTORY

Each defendant in the study was asked to complete a Buss-Durkee Hostility Inventory (BDHI). Eight individuals (one accused murderer and seven accused batterers) refused.

The BDHI is a self-rating scale of 75 true-false statements designed to rate eight different aspects of hostility -- resentment, suspicion, assault, indirect hostility, irritability, verbal hostility, negativism, and guilt. Three scores are given to each subject. The Factor 1 score is considered an attitudinal component and is equal to the combined scores on the "resentment" and "suspicion" scales. The Factor 2 score is considered the motor component and is the combined scores of the scales not included in Factor 1. The total score is the sum of the Factor 1 and Factor 2 scores.

Table 1 shows the mean BDHI scores by type of offender. T-tests showed no significant differences between the two groups.

Renson, Adams, and Tinklenberg (19XX) have suggested that the BDHI may be useful in "assessing potential violence in alcohol abusers." We correlated the three BDHI scores with Michigan Alcoholism Screening Test (MAST) scores. Table 2 shows the Pearson Correlation Coeffients for MAST and BDHI scores. The accused murderers presented strong positive correlations between MAST score and all parts of the BDHI scores. The battery defendants showed a significant correlation between MAST score and Factor 2 on the BDHI, but other correlations were weak.

Table 1. Buss-Durkee Hostility Inventory Scores

BDHI Scores	Accused Murderers		Accused Batterers	
	Mean	SD	Mean	SD
Factor 1	8.3	5.2	6.7	4.4
Factor 2	18.0	10.4	18.3	9.4
Total	33.0	17.5	31.3	15.6

Table 2. Correlations of BDHI and MAST Scores by Type of
          Offender

BDHI	Accused Murderers (n=24)		Accused Batterers (n=49)	
	r value	P	r value	P
Factor 1	.5324	.007	.0627	.669
Factor 2	.5701	.004	.3026	.035
Total Score	.6148	.001	.2249	.12

PARAPHILIAC EXPERIENCES

Each defendant was asked if he had ever engaged in each of a list of preselected sexual behaviors and fantasies. With the possible exception of rape fantasies, the behaviors and fantasies selected are those which would constitute a paraphilia (sexual deviation) if the preferred or exclusive method of achieving sexual arousal. Table 1 shows the frequencies of defendants who reported such paraphiliac experiences. One or more paraphiliac experiences were reported by 17 defendants. Table 2 shows the numbers of different types of paraphiliac experiences reported by individual defendants.

Of the 17 defendants reporting paraphiliac experiences, 15 had never been married, one was currently married, and the other was separated. Although the numbers are quite small, we regard it as a theoretically important observation that four (80%) of the five murderers reporting paraphiliac experiences had killed women, as contrasted with 10 (50%) of the 20 murderers denying such experiences. Likewise, 6 (50%) of the 12 batterers reporting paraphiliac experiences had battered women, as contrasted with 12 (27.3%) of the 44 men denying such experiences. This finding, though quantitatively weak, is of importance because it lends a new form of support to Stoller's (1975) view, based on experience with noncriminal patients, that hostility toward women is a central underlying dynamic in all forms of perversion. To our knowledge, paraphiliac experiences have not previously been studied among men charged with nonsexual, violent offenses.

Table 1. Paraphiliac Experiences Among Murder and Battery
Defendants

Paraphiliac Experiences	Number Reporting One or More Experiences		
	Murderers	Batterers	Total
Voyeurism	2 (28.6)	5 (71.4)	7 (100.0)
Exhibitionism	__ (0.0)	3 (100.0)	3 (100.0)
Fetishism	1 (25.0)	3 (75.0)	4 (100.0)
Transvestism	__ (0.0)	5 (100.0)	5 (100.0)
Rape Fantasies	2 (25.0)	6 (75.0)	8 (100.0)
Bondage Fantasies	__ (0.0)	3 (100.0)	3 (100.0)
Bondage	2 (50.0)	2 (50.0)	4 (100.0)
Other Paraphiliac Experience	1 (20.0)	4 (80.0)	5 (100.0)
No Paraphiliac Experience	20 (31.2)	44 (68.8)	64 (100.0)
Total n	25 (30.9)	56 (69.1)	81 (100.0)

Table 2. Number of Different Forms of Paraphiliac Experience
          Reported by Individual Defendants

Forms of Paraphiliac Experience	Murderers	Batterers	Total
1	3 (37.5)	5 (62.5)	8 (100.0)
2	1 (25.0)	3 (75.0)	4 (100.0)
3	1 (100.0)	__ (0.0)	1 (100.0)
4	__ (0.0)	1 (100.0)	1 (100.0)
5	__ (0.0)	2 (100.0)	2 (100.0)
6	__ (0.0)	1 (100.0)	1 (100.0)
	5 (29.4)	12 (70.6)	17 (100.0)

MULTIVARIATE ANALYSIS OF CHILDHOOD "PREDICTORS"

In this analysis we examine the prevalence of bivariate relationships between and possible underlying dimensionality among a set of nine childhood behaviors or experiences--firesetting, cruelty to animals, enuresis, tantrums, fighting, truancy, observation of mother being abused, observation of father being abused, and a history of having been abused as a child--as they occur in this population of murderers and batterers. These factors have been suggested on the basis of clinical observation as being predictors of violent behavior in adulthood, though research evidence for their predictive reliability is inconsistent and shows them to be less specific than clinicians have assumed.

We address the prevalence of these factors in Table 1, where we present the frequency distributions of individuals reporting various numbers of these supposed predictors. As shown here, 77.8 percent of the sample reported at least one predictor, and 55.7 percent reported two or more.

The extent to which these factors tend to covary is examined in Table 2, where we present Pearson product-moment correlations between the predictors along with their one tailed significance levels. (These variables have been coded such that an individual reporting a given predictor receives a "1" on the corresponding variable, and a "0" otherwise. Thus the mean of each variable, which we also report in Table 2, represents the proportion of the sample reporting a positive history of the predictor measured by that variable.)

As can be seen from this table, a substantial number of these factors have significant bivariate relationships, some of which were expected on the basis of existing research literature that seeks to confirm or refute the clinical hypothesis that a childhood "triad" of firesetting, enuresis, and cruelty to animals is predictive of adult violence. As shown in Table 2, these three variables do covary to some degree. Cruelty to animals is significantly correlated at or beyond the .05 level with both enuresis and firesetting. Firesetting and enuresis are not significantly correlated, however. We also note that two of these factors (firesetting and cruelty to animals) are also significantly correlated with truancy.

A history of a substantial amount of fighting in childhood appears to covary positively and significantly with a number of other factors, including a history of observing parents abused and of the individual having been abused himself. It is also significantly associated with a history of tantrums, and particularly strongly with a history of truancy.

Among the strongest correlations are those between the variables measuring a history of the individual's having observed mother abused, father abused, and of having been abused himself in childhood. The strongest relationship in this group of variables (and the second largest of any in the matrix) is that between observation of mother being abused and the individual himself having been abused, a pattern suggestive, perhaps, of the presence of an abusive male in the household.

The overall pattern of significant relationships observed in the correlation matrix discussed above would seem to suggest that

there are clusterings of predictors, such as the "triad" variables and those measuring intra-familial assault, in which the member variables are for the most part all correlated with one another, but only weakly correlated with most of the other variables.

In order to further investigate this pattern of relationships observed among the bivariate correlations we performed principal components analysis on the correlation matrix shown in Table 2. This procedure allows us to examine whether a set of variables are in fact multiple indicators of one or more unmeasured variables which are linear combinations of the original measures and which may be conceptually meaningful (Greenbert, 1982). The procedure is one in which a principal component is extracted which is that linear combination of the variables that accounts for more of the shared variance in the variable set than would any other. A second principal component is extracted which accounts for the second largest amount of the shared variance, subject to the restriction that the linear function must be orthogonal to (uncorrelated with) the first component. This procedure is repeated until as many principal components have been extracted as there are variables in the analysis, although in practice only those principal components with eigenvalues (a measure of the total amount of variance accounted for by a given principal component) greater than or equal to unity are evaluated. The principal components presented here have, in addition, undergone a varimax rotation procedure which yields simpler, more conceptually meaningful components (Nie et. al., 1975).

The substantive interpretation of these factors is accomplished through examination of the relative magnitudes of the "loadings" of the variables on each component. As Table 3 shows, the first

of the three principal components, which accounted for the largest
amount (25.9 percent) of the variance in the set of predictors,
shows high loadings for those variables associated with the
individual having observed parents being abused or with having
been abused himself. The highest-loading variables on the second
component were those measuring a history of childhood fighting,
tantrums, and truancy. The final factor, and that accounting
for the least amount of variance, has as its highest loading
variables those factors--enuresis, firesetting, and cruelty to
animals--which are commonly thought to comprise a predictive
triad.

It is customary when possible to attach labels to principal
components based on the substantive interpretation suggested by
observed patterns of loadings. We label the first principal
component a "familial violence" factor, the second an "acting
out" factor, and the third a "classic triad" factor (based on the
emphasis given to this last grouping of variables in the clinical
literature).

Given the relative conceptual clarity of the principal
components obtained in our analysis, a logical next step would
be to utilize the principal component score coefficients obtained
(but not shown here) to derive three functions corresponding to
the three principal components described above, and to use these
as predictors in one set of ordinary least squares or logistic
regression equations in which the dependant variables would be
diagnostic categories, and a second set in which the principal
components and diagnostic categories would be used to predict
various features of the offenses committed, such as whether or
not the victim was a family member.

Table 1.   Frequency Distribution of Individuals with Varying
           Numbers of Childhood Predictors

Number of Predictors	Number of Individuals	Relative Frequency	Cumulative Frequency
0	18	22.8	22.8
1	17	21.5	44.3
2	12	15.2	59.5
3	16	20.3	79.7
4	6	7.6	87.3
5	4	5.1	92.4
6	5	6.3	98.7
7	0	0.0	98.7
8	1	.1.3	100.0
TOTAL	79	100.0	

Table 2. Correlation Matrix of Childhood Predictors[†]
(N=79)

		1	2	3	4	5	6	7	8	9
1.	Firesetting	1:00	.1421	.2417*	.1286	.2398*	.0796	.1624	-.0567	-.0167
2.	Enuresis		1.00	.3094**	-.0552	.0937	.0146	-.0497	.0636	.0779
3.	Cruelty to Animals			1.00	.0556	.2726*	.1522	.1522	.0420	-.0517
4.	Tantrums				1.00	.2475*	.1851	.1218	.1109	.2494
5.	Truancy					1.00	.4838**	.1456	-.0141	.2014*
6.	Fighting						1.00	.3417*	.2256*	.1963*
7.	Abused as Child							1.00	.4125**	.2829**
8.	Saw Mother Abused								1.00	.3254**
9.	Saw Father Abused									1.00
Mean		.1266	.2405	.1646	.2532	.3924	.3038	.3038	.2658	.1139
Std. Dev.		.3346	.4301	.3731	.4376	.4914	.4628	.4628	.4446	.3197

[†]   Pearson product-moment correlations

* $p < .05$, one-tailed

** $p < .01$, one-tailed

Table 3. Principal Components Analysis of Childhood
Predictors (Varimax Rotated Factor Matrix)

Variable Loadings on Principal Components

Variable	1	2	3
Firesetting	− .13025	.38123	.48079
Enuresis	.10482	− .20050	.75519
Cruelty to Animals	.02630	.17577	.76363
Tantrums	.14291	.61365	-− .15669
Truancy	.01860	.78472	.26242
Fighting	.35936	.62382	.09400
Child Abuse	.69033	.22463	.10761
Saw Mother Abused	.84321	− .10385	.03736
Saw Father Abused	.63517	.23037	− .09973
Eigenvalue	2.32774	1.51128	1.15254
Pct. of Variance Explained	25.9	16.8	12.8

(TOTAL=55.5)

PSYCHIATRIC HISTORY

Seventy-nine percent of the study sample had previously received counseling or psychiatric treatment. Battery defendants were significantly more likely to have had previous contact with psychiatric services than murder defendants   (see Table 1).

For those having received prior treatment the mean age at first treatment was 22.5± 3.1 (S.E.) for the accused murderers (n=15) and 23.4± 1.1 (S.E.) for the accused batterers (n=49).

Looking at all defendants, the mean number of prior psychiatric hospitalizations was 0.84± 0.4 (S.E.) for the accused murderers and 5.7± 1.0 (S.E.) for the accused batterers, a difference that was statistically significant (t=-3.23; df=78; p=.002).

Two of the murder defendants (8%) had been psychiatrically hospitalized during the year prior to the offense, while 28 (50%) of the accused batterers had hospitalizations during this time period (Table 2, x^2=11.33; d.f.=1; p=.0008).

Both of the accused murderers who had been hospitalized in the year before the offense had been discharged within three months prior to the offense. Fifteen (53.6%) of the accused batterers had been discharged within that same time period.

Seven (28%) of the murder defendants had been seen in outpatient treatment in the year prior to the offense, while 28(50%) of the batterers had been treated on an outpatient basis during the prior year. Five of the accused murderers and 23 of the accused batterers who were in outpatient therapy had seen their therapist or counselor within three months prior to the offense. Table 3 shows length of treatment by offense charged.

Five of the seven murder defendants who were in therapy
stopped treatment within three months prior to the offense while
16 of the 30 battery defendants in treatment ceased therapy within
3 months before the offense.

Six (24%) of the accused murderers and 26 (46.4%) of the
accused batterers were supposed to be taking medication during
the three months prior to the offense. Table 4 shows the
types of medication the offenders had been prescribed. (Since
some individuals were on more than one type of medication, total
medications may not equal total number of patients on medication.)
Four of the murder defendants and 20 of the battery defendants
were not taking their prescribed medication during the week prior
to the offense. The mean number of days prior to the offense
for discontinuance of medication was 35.2 ± 9.5 (S.E.) for the
accused murderers and 33.5 ± 7.4 (S.E.) for the accused batterers.
(Four of the accused batterers stopped their medication more than
90 days prior to the offense and were not included in the above
calculation.)

Table 1. Prior Counseling or Psychiatric Treatment by
          Offense Charged

| | Prior Treatment | | Total |
| | No | Yes | |
Offense	n (Row %)	n (Row %)	n (Row %)
Murder	10 (40.0)	15 (60.0)	25 (100.0)
Battery	7 (12.5)	49 (87.5)	56 (100.0)
Total	17 (21.0)	64 (79.0)	81 (100.0)

x^2=6.31; d.f.=1; p=.012

Table 2. Hospitalization Within One Year Prior to Offense by
          Offense Charged

| | No | Yes | Total |
Offense	n (Row %)	n (Row %)	n (Row %)
Murder	23 (92.0)	2 (8.0)	25 (100.0)
Battery	28 (50.0)	28 (50.0)	56 (100.0)
Total	51 (63.0)	30 (50.0)	81 (100.0)

x^2=11.33; d.f.=1; p=.0008

Table 3. Duration of Pre-offense Psychiatric Treatment by
          Offense Charged

Offense	6 Months or Less n (Row %)	More than 6 Months n (Row %)	Total n (Row %)
Murder	5 (62.5)	3 (37.5)	8 (100.0)
Battery	11 (36.7)	19 (63.3)	30 (100.0)
Total	16 (42.1)	22 (57.9)	38 (100.0)

Table 4. Psychoactive Medication Prescribed* for Use During
          Three Months Prior to Offense by Offense Charged

Medication	Murderers	Batterers	Total
No medication	19	29	48
Neuroleptics (oral)	1	23	24
Antidepressants	1	—	1
Anxiolytics	4	1	5
Sedative-hypnotics	—	1	1
Anticonvulsants	—	1	1
Lithium carbonate	—	5	5
Prolixin (injections)	—	3	3
Other psychotropics	1	8	9

* A single individual may have had multiple drugs pre-
cribed, so these column totals excede the subsample sizes.

CRIMINAL HISTORY

The mean number of previous arrests for murderers (5.6± 1.5) did not differ significantly from that for batterers (4.6± 1.0) (t=0.52; d.f.=76; p=.605). The mean number of previous imprison- ments for murderers (0.5± 0.3) did not differ significantly from that for batterers (0.4± 0.2) (t=0.29; d.f.=77; p=.776). The mean number of years previously spent in correctional facilities for murderers (1.4± 0.8) did not differ significantly from that for batterers (0.6± 0.2) (t=0.99; d.f.=27.4; p=.332).

Table 1 shows the correlations between previous imprisonments and previous arrests. As expected, these were significantly posi- tively correlated for murderers, for batterers, and for the total sample. Table 2 shows the correlations between number of years spent in correctional facilities and number of previous arrests. As expected, these, too, were significantly positively correlated for murderers, for batterers, and for the total sample.

Table 3 shows the correlations between the number of previous arrests and the number of previous hospitalizations. These were significantly positively correlated for batterers, but not for murderers. Table 4 shows the correlations between number of previous imprisonments and number of previous hospitalizations. These were significantly positively associated for murderers, for batterers, and for the total sample.

Table 1. Pearson Product-Moment Correlations of Number of
          Previous Imprisonments With Number of Previous Arrests

Group	n	r	P
Murderers	24	0.53	.008
Batterers	52	0.71	.000
Total	76	0.65	.000

Table 2. Pearson Product-Moment Correlations of Number of
          Years Spent in Correctional Institutions With
          Number of Previous Arrests

Group	n	r	P
Murderers	25	0.56	.004
Batterers	52	0.36	.009
Total	77	0.42	.000

Table 3. Pearson Product-Moment Correlations of Number of
          Previous Arrests With Number of Previous Hospital-
          izations

Group	n	r	P
Murderers	25	0.19	.369
Batterers	52	0.48	.000
Total	77	0.37	.001

Table 4. Pearson Product-Moment Correlations of Number of
          Previous Imprisonments With Number of Previous
          Hospitalizations

Group	n	r	P
Murderers	24	0.54	.006
Batterers	54	0.38	.005
Total	78	0.32	.004

SIGNS AND SYMPTOMS PRECEDING THE OFFENSE

In order to explore any behavioral and psychological changes subjects may have experienced during the three months prior to the offense, each patient was rated by the examining psychiatrist as to stability, variability, increase, or decrease of ten subjective states.

The murder defendants tended to experience increasing amounts of depression and anxiety, while the battery defendants reported increases in hallucinations, delusions, and bizarre thoughts. This reflects the diagnostic differences between the two groups. Table 1 shows the frequencies of subjects reporting increases in each subjective state. Tables 2 - 4 show frequencies of reported stability, variability, or decrease of each state.

We are confident about the data on _increases_ in symptoms, but found it difficult to distinguish stability, variability, and decreases on the basis of our interviews with subjects. This may reflect the fact that the examining psychiatrists were experienced in eliciting data on symptom increases, but that they generally inquire about symptom decreases only in the context of evaluating treatment response. The data on symptom increases showed statistically significant differences between the two groups with regard to anxiety (x^2=13.58; d.f.=3; p=.003), bizarre thoughts (x^2=20.67; d.f.=2; p=.00) and delusions (x^2=13.12; d.f.=2; p=.001).

Subjects were also asked if their drinking had increased during the three months prior to the offense. Ten (40%) of the murder defendants and 10 (17.9%) of the battery defendants reported an increase.

Table 1. Frequencies of Subjects Reporting Symptom Increases
Prior to Offense

Symptom	Murderers (n=25) n (Row %)	Batterers (n=56) n (Row %)	Total (n=81) n (Row %)
Depression	15 (41.7)	21 (58.3)	36 (100.0)
Anxiety	10 (41.7)	14 (58.3)	24 (100.0)
Excitement	3 (13.0)	20 (87.0)	23 (100.0)
Agitation	8 (30.8)	18 (69.2)	26 (100.0)
Irritability	10 (28.6)	25 (71.4)	35 (100.0)
Hallucinations	2 (13.3)	13 (86.7)	15 (100.0)
Delusions	1 (4.3)	22 (95.7)	23 (100.0)
Bizarre Thoughts	__ (0.0)	28 (100.0)	28 (100.0)
Confusion	5 (20.0)	20 (80.0)	25 (100.0)
Alienation	7 (28.0)	18 (72.0)	25 (100.0)

Table 2. Frequencies of Subjects Reporting Symptom Stability

Symptom	Murderers (n=25) n (Row %)		Batterers (n=56) n (Row %)		Total (N=81) n (Row %)	
Depression	8	(22.9)	27	(71.1)	35	(100.0)
Anxiety	7	(15.9)	37	(84.1)	44	(100.0)
Excitement	16	(37.2)	27	(62.8)	43	(100.0)
Agitation	12	(27.3)	32	(72.7)	44	(100.0)
Irritability	10	(25.6)	29	(74.4)	39	(100.0)
Hallucinations	21	(33.3)	42	(66.7)	63	(100.0)
Delusions	24	(43.6)	31	(56.4)	55	(100.0)
Bizarre thoughts	22	(44.9)	27	(55.1)	49	(100.0)
Confusion	18	(35.3)	33	(64.7)	51	(100.0)
Alienation	14	(29.8)	33	(70.2)	47	(100.0)

Table 3. Frequencies of Subjects Reporting Symptom Variability

Symptom	Murderers (n=25) n (Row %)		Batterers (n=56) n (Row %)		Total (n=81) n Row %)	
Depression	__	(0.0)	6	(100.0)	6	(100.0)
Anxiety	8	(66.7)	4	(33.3)	12	(100.0)
Excitement	3	(42.9)	4	(57.1)	7	(100.0)
Agitation	5	(50.0)	5	(50.0)	10	(100.0)
Irritability	5	(71.4)	2	(28.6)	7	(100.0)
Hallucinations	2	(66.7)	1	(33.3)	3	(100.0)
Delusions	__	(0.0)	3	(100.0)	3	(100.0)
Bizarre Thoughts	3	(75.0)	1	(25.0)	4	(100.0)
Confusion	2	(40.0)	3	(60.0)	5	(100.0)
Alienation	4	(66.7)	2	(33.3)	6	(100.0)

Table 4. Frequencies of Subjects Reporting Symptom Decreases

Symptom	Murderers (n=25) n (Row %)	Batterers (n=56) n (Row %)	Total (n=81) n (Row %)
Depression	2 (50.0)	2 (50.0)	4 (100.0)
Anxiety	__ (0.0)	1 (100.0)	1 (100.0)
Excitement	3 (37.5)	5 (62.5)	8 (100.0)
Agitation	__ (0.0)	1 (100.0)	1 (100.0)
Irritability	__	__	__
Hallucinations	__	__	__
Delusions	__	__	__
Bizarre Thoughts	__	__	__
Confusion	__	__	__
Alienation	(0.0)	3 (100.0)	3 (100.0)

HELP-SEEKING BEFORE THE OFFENSE

Each subject was asked if he had attempted "to get help from"
a variety of professionals and agencies during the 30 days pre-
ceding the offense. (An effort was made, of course, to find
suitable reference points on the calendar to aid the subjects'
accurate recall.) Thirty-eight (46.9%) of the total sample had
sought help. These help-seekers included nine (36.0%) of the
murderers and 29 (51.8%) of the batterers. The proportion of
batterers seeking help from each type of agency was greater than
the corresponding proportion of murderers.

Table 1 shows the frequencies with which each offender
group sought help from each agency, but these data do not begin
to convey the meaning of this help-seeking. The interview pro-
tocols provide a rich source of descriptive information about the
efforts of these defendants to seek help. Some told of enormous
frustrations with public services. At least one murderer made
repeated efforts to turn himself in to the police prior to the
murder, having been permitted to escape from custody because he
witnessed another prisoner's suicide due to the negligence of
jail personnel.

The final report on help-seeking will be largely descriptive.
The two principal observations are the repeated efforts of a
few offenders to seek help and the fact that the majority of help-
seeking efforts included no verbalization of threats or other
requests for help in controlling violent impulses.

Table 1. Agencies from which Help was Sought Prior to the
          Offense by Offense Charged

Agency	Murderer n (Row %)	Batterer n (Row %)	Total n (Row %)
Medical[1]	5 (26.3)	14 (73.7)	19 (100.0)
Mental Health[2]	3 (18.8)	13 (81.2)	16 (100.0)
Legal[3]	3 (15.0)	17 (85.0)	20 (100.0)
Did not seek help	16 (37.2)	27 (62.8)	43 (100.0)
Total[4]	25 (30.9)	56 (69.1)	81 (100.0)

[1]"Medical" includes medical doctors, emergency rooms, and hospitals.

[2]"Mental Health" includes psychiatrists, psychologists, social workers, mental health clinics, psychiatric hospitals, and other mental health services.

[3]"Legal" includes lawyers, policemen, probation and parole officers, and other legal or court services.

[4]Note that some individuals sought help from more than one source.

PARASUICIDE HISTORY

No significant differences were observed between murder and battery defendants with regard to parasuicidal (non-fatal self-destructive) behavior.

Seven (28.0%) of the accused murderers reported serious threats and/or attempts to kill themselves in the past. Six of these seven had made serious suicide attempts. During the three months prior to the offense one murder defendant attempted suicide, and five others reported that they had experienced some suicidal ideation during that period.

Nineteen (33.9%) of the accused batterers reported serious threats and/or attempts to kill themselves in the past. Eighteen of these had made serious attempts. During the three months prior to the offense four battery defendants attempted suicide, and fourteen others thought about or threatened to kill themselves.

Twelve (48%) of the murder defendants and 15 (26.8%) of the battery defendants reported thinking about suicide subsequent to the offense.

Table 1 shows parasuicidal behaviors by type of offense. (Since some offenders reported more than one behavior, column totals are greater than total number of offenders.)

Table 1.   Parasuicide Behaviors by Offense Charged

Behavior	Murderers n (Row %)	Batterers n (Row %)	Total n (Row %)
Suicide threat any time in past	6 (27.3)	16 (72.7)	22 (100.0)
Suicide attempt any time in past	6 (25.0)	18 (75.0)	24 (100.0)
Suicide threat in 3 months prior to offense	3 (27.3)	8 (72.7)	11 (100.0)
Suicide attempt in 3 months prior to offense	1 (20.0)	4 (80.0)	5 (100.0)
Suicidal thoughts in 3 months prior to offense	5 (26.3)	14 (73.7)	19 (100.0)
Suicidal thoughts after offense	12 (44.4)	15 (55.6)	27 (100.0)
Total	25 (30.9)	56 (69.1)	81 (100.0)

    * Individual defendants reported more than one form of para-
suicidal behavior, so the columns should not be added.

ALCOHOL AND OTHER DRUGS AT THE TIME OF THE OFFENSE

Fourteen (56.0%) of the murder defendants and sixteen (28.6%) of the battery defendants reported drinking at the time of the offense. The association between drinking at the time of the offense and type of offense was statistically significant (x^2=4.46; d.f.=1; p=.05). Of those who were drinking at the time of the offense, 46.7% committed murder and 53.3% committed battery.

Subjects who reported drinking at the time of the offense were asked to estimate the amount consumed. All of the accused murderers (except one who refused to answer) reported drinking the equivalent of 5 or more beers, while 11 (68.7%) of the batterers who were drinking reported consuming the equivalent of 5 or more beers.

Eight (61.5%) of the murder defendants and one (6.2%) of the battery defendants who reported drinking at the time of the offense reported that their victims were also drinking. Among all defendants, one (4.0%) of the murderers and four (7.8%) of the batterers reported that they had not been drinking but their victims had been. Victim's sex was independent of drinking at the time of the offense for both murder and battery.

Overall, alcohol was present in 58.3% of the homicides and 37.2% of the batteries. Table 1 shows the presence of alcohol by type of offense.

Table 2 shows the frequencies of victims reported to have been drinking by offense type. Of the victims who were killed,

37.5% had been drinking, as contrasted with 9.8% of the victims who were not killed. The association between type of offense and victim's drinking was statistically significant (x^2=6.52; d.f.=1; p <.02).

Five (20.0%) of the murder defendants and eleven (19.6%) of the battery defendants reported taking drugs at the time of the offense. Defendants' accounts of drug ingestion, however, were not regarded as uniformly credible.

Table 1.   Presence of Alcohol (Offender and/or Victim) by
           Offense Charged

Presence of Alcohol	Murder n (Row %)	Battery n (Row %)	Total n (Row %)
Alcohol Present	14 (42.4)	19 (57.6)	33 (100.0)
No Alcohol Present	10 (23.8)	32 (76.2)	42 (100.0)
Total	24 (32.0)	51 (68.0)	75 (100.0)

Table 2.   Victim Drinking by Offense Charged

Victim Drinking	Murder n (Row %)	Battery n (Row %)	Total n (Row %)
Victim Drinking	9 (64.3)	5 (35.7)	14 (100.0)
Victim Not Drinking	15 (24.6)	46 (75.4)	61 (100.0)
Total	24 (32.0)	51 (68.0)	75 (100.0)

LOCATION OF THE OFFENSE

Twenty (80.0%) of the murders and 27 (48.2%) of the batteries occurred indoors. Table 1 shows indoor vs. outdoor locations by offense charged. The association between offense and location was statistically significant (x^2=5.92; d.f.=1; p $<$.02).

For offenses occurring indoors both murder and battery occurred in a home more frequently than in any other single location. Of the offenses occurring indoors, 85.0% of the murders and 70.3% of the batteries occurred in the home. Table 2 shows the frequency of murder and battery in different rooms within the home.

For those offenses occurring outdoors, two (40.0%) of the murder defendants and 25 (92.6%) of the battery defendants reported being less than 100 yards from the nearest residence, open business, or traffic (Table 3). The association between distance from potential observers and offense charged is of substantive interest despite the small cell frequencies. Only two murders of the 25 studied took place in areas with high visual surveillance opportunities. The locations of outdoor offenses are shown in Table 4.

Table 1. Location of Offense by Offense Charged

Location	Murder n (Row %)	Battery n (Row %)	Total n (Row %)
Indoors	20 (42.6)	27 (57.4)	47 (100.0)
Outdoors	5 (14.7)	29 (85.3)	34 (100.0)
Total	25 (30.9)	56 (69.1)	81 (100.0)

Table 2.   Room Within the Home in Which Offense Occurred

Room	Murder n (Row %)	Battery n (Row %)	Total n (Row %)
Bedroom	10 (62.5)	6 (37.5)	16 (100.0)
Kitchen	4 (57.1)	3 (42.9)	7 (100.0)
Living Room	3 (30.0)	7 (70.0)	10 (100.0)
Bath	__ (0.0)	1(100.0)	1 (100.0)
Other	1 (25.0)	3 (75.0)	4 (100.0)
Not in the home	7 (16.3)	36 (83.7)	43 (100.0)
Total	25 (30.9)	56 (69.1)	81 (100.0)

Table 3. Distance From Nearest Residence, Open Business, or
          Traffic for Outdoor Offenses, by Offense Charged

Distance	Murder n (Row %)	Battery n (Row %)	Total n (Row %)
$\leq$ 100 yds.	2 (7.4)	25 (92.6)	27 (100.0)
>100 yds.	3 (60.0)	2 (40.0)	5 (100.0)
	5 (15.6)	27 (84.4)	32 (100.0)

x^2=5.31; d.f.=1; p<.03 (3 out of 4 cells have expected frequencies of less than 5)

Table 4. Location of Outdoor Offenses by Offense Charged

	Murder n (Row %)	Battery n (Row %)	Total n (Row %)
Yard	1 (16.7)	5 (83.3)	6 (100.0)
Woods	2 (66.7)	1 (33.3)	3 (100.0)
Parking Lot	__ (0.0)	2 (100.0)	2 (100.0)
Street	1 (6.2)	15 (93.8)	16 (100.0)
Field	1 (100.0)	__ (0.0)	1 (100.0)
Other	__ (0.0)	5 (100.0)	5 (100.0)
Total	5 (15.2)	28 (84.8)	33 (100.0)

WEAPON USED

Table 1 shows the frequencies of weapon types by offense charged. The most prevalent weapon in murders was a cutting or piercing instrument (44.0%) and in batteries was a bodily weapon (31.5%). Only five (20.0%) of the murders and one (1.8%) of the batteries involved a firearm. These are substantially lower than the proportion of these offenses involving firearms nationwide, but the state in which the study was conducted has unusually restrictive firearm regulations and state-specific comparative data would be preferable. When compared to 1979 regional data on weapons used in murder, the murder sample studied appears to have used cutting or piercing instruments and blunt instruments in a greater proportion of cases and firearms in a smaller proportion of cases than is true of murderers in general. Our data will be compared with 1980 regional UCR data on weapons used in murder.

Table 2 shows the location of non-bodily weapons at the time the offender first encountered his victim. Proportionately more batterers carried the weapon on their persons, while proportionately more murderers located the weapon at a site beyond their reach when the victim was first encountered.

Five defendants reported that they had acquired their weapons for protection of self or others. These included two murderers (one firearm; one cutting or piercing instrument) and three batterers (all cutting or piercing instruments). The other four firearms used in murders were acquired for recreation (2), criminal purposes (1), and other reasons (1). The one firearm used in a battery was not acquired until the time of the offense. Of the

cutting or piercing instruments used, 53.8% of those used in murders and 70.6% of those used in batteries were acquired for household or tool use.

Table 1. Weapon Used by Offense Charged

Weapon	Murder n (Row %)	Battery n (Row %)	Total n (Row %)
Bodily Weapon	0 (0.0)	26 (100.0)	26 (100.0)
Cutting or Piercing Instrument	11 (39.3)	17 (60.7)	28 (100.0)
Firearm	5 (83.3)	1 (16.7)	6 (100.0)
Blunt Instrument	8 (44.4)	10 (55.6)	18 (100.0)
Fire	1 (100.0)	__ (0.0)	1 (100.0)
Total	25 (31.6)	54 (68.4)	79 (100.0)

Table 2. Location of Weapon When Victim was First Encountered
          by Offense Charged (Non-Bodily Weapons Only)

Weapon Location	Murder n (Row %)	Battery n (Row %)	Total n (Row %)
On Person	11 (36.7)	19 (63.3)	30 (100.0)
Arms Reach	7 (58.3)	5 (41.7)	12 (100.0)
Out of Reach	6 (75.0)	2 (25.0)	8 (100.0)
Other	1 (33.3)	2 (66.7)	3 (100.0)
Total	25 (47.2)	28 (52.8)	53 (100.0)

VICTIMS

The ages of the murder victims ranged from 7 to 81 years with a mean of 38.8 ± 4.5 (S.E.). The ages of the battery victims ranged from 15 to 79 years with a mean of 40.0 ± 2.4 (S.E.). Fourteen (56.0%) of the murder victims and 18 (32.1%) of the battery victims were female (see Table 1). Victim's sex was statistically independent of type of offense ($x^2=3.17$; d.f.=1; p=.07).

Murder victims were of the same race as the offender in 96% of the cases, but only 48.7% of the batteries were intraracial. For murder cases, the association between victims' and offenders' race was statistically significant ($x^2=11.5$; d.f.=1; p$<$.001; 3 out of 4 cells had expected cell frequencies of less than 5). For battery cases, victim's race was statistically independent of offender's race ($x^2=3.19$; d.f.=1; p=.07). Tables 2 and 3 show victim and offender race for murder and battery, respectively.

Murder victims were more likely to be friends, relatives, or acquaintances (84.0%) than battery victims (44.6%). Table 4 shows victim relationships to offender. Tables 5 and 6 present victim-offender relationship data for male and female victims, respectively.

Table 1. Victim's Sex by Offense Charged

Victim Sex	Murder	Battery	Total
	n (Row %)	n (Row %)	n (Row %)
Male	11 (22.4)	38 (77.6)	49 (100.0)
Female	14 (43.8)	18 (56.2)	32 (100.0)
Total	25 (30.9)	56 (69.1)	81 (100.0)

Table 2. Victim's Race by Offender's Race for Murder Cases

| Race of Murder Victims | Offender's Race | | Total |
	White n (Row %)	Nonwhite n (Row %)	n (Row %)
White	21 (100.0)	__ (0.0)	21 (100.0)
Nonwhite	1 (25.0)	3 (75.0)	4 (100.0)

Table 3. Victim's Race by Offender's Race for Battery Cases

| Race of Battery Victims | Offender's Race | | Total |
	White n (Row %)	Nonwhite n (Row %)	n (Row %)
White	34 (70.8)	14 (29.2)	48 (100.0)
Nonwhite	1 (20.0)	4 (80.0)	5 (100.0)

Table 4. Relationship to Victim by Offense Charged

Relationship to Victim	Murderers n (Row %)	Batterers n (Row %)	Total n (Row %)
Wife or Lover	5 (55.6)	4 (44.4)	9 (100.0)
Parent	1 (10.0)	9 (90.0)	10 (100.0)
Other Relative	4 (57.1)	3 (42.9)	7 (100.0)
Friend or Acquaintance	11 (55.0)	9 (45.0)	20 (100.0)
Stranger	2 (14.3)	12 (85.7)	14 (100.0)
Police Officer	__ (0.0)	12 (100.0)	12 (100.0)
Other	2 (22.2)	7 (77.8)	9 (100.0)
Total	25 (30.9)	56 (69.1)	81 (100.0)

Table 5.   Relationship of Male Victims to Offender by
           Offense Charged

Victim Relationship	Murder		Battery		Total	
	n	(Row %)	n	(Row %)	n	(Row %)
Wife/Lover	__	(0.0)	__	(0.0)	__	(0.0)
Parent	__	(0.0)	4	(100.0)	4	(100.0)
Other Relative	3	(50.0)	3	(50.0)	6	(100.0)
Friend or Acquaintance	7	(43.8)	9	(56.2)	16	(100.0)
Stranger	2	(28.6)	5	(71.4)	7	(100.0)
Police	__	(0.0)	12	(100.0)	12	(100.0)
Other	__	(0.0)	5	(100.0)	5	(100.0)
Total	12	(24.0)	38	(76.0)	50	(100.0)

Table 6. Relationship of Female Victims to Offender by Offense Charged

Victim Relationship	Murder n (Row %)	Battery n (Row %)	Total n (Row %)
Wife/Lover	5 (55.6)	4 (44.4)	9 (100.0)
Parent	1 (16.7)	5 (83.3)	6 (100.0)
Other Relative	2 (100.0)	__ (0.0)	2 (100.0)
Friend or Acquaintance	4 (100.0)	__ (0.0)	4 (100.0)
Stranger	__ (0.0)	7 (100.0)	7 (100.0)
Police	__ __	__ __	__ __
Other	2 (50.0)	2 (50.0)	4 (100.0)
Total	14 (43.8)	18 (56.2)	32 (100.0)

EXPECTED PRODUCTS OF THE STUDY

The sample studied includes approximately 20-25% of the
murder defendants arraigned in the state during the study period,
but only approximately 2-3% of battery defendants. Based upon
the significantly greater frequencies of psychiatric hospitaliza-
tions and of psychotic disorders among batterers than among
murderers in our sample, we believe that the extent of psychiatric
disorder necessary to generate referral to MSH is greater for
batterers than for murderers. That is, the threshold of barriers
to referral is lower for murderers than for batterers. Although
we believe the sample included most of the "sickest" men with either
charge, our efforts to compare the two offender groups must take
account of this important difference.

We had originally anticipated eight brief manuscripts from
the study. Two of these ("Murder and Suicide" and "Manic
Attacks on Police Officers") are not supported by sufficient data
to be worthy of independent publication, though the pertinent
data are readily incorporated into other manuscripts. The other
original concepts are still viable, though it may be beneficial to
combine certain topics into lengthier manuscripts (see below).

The original proposal also called for exploratory analysis
of seven other topic areas. Three of these ("Sexual Perversion,"
"Childhood Predictors," and "History of Family Violence") have
already been fruitful. Two others ("Buss-Durkee Hostility Scores"
and "Amnesia for the Offense") merit mention in the context of
more broadly focused papers. The sixth, "Discriminant Function
Analysis of Batterers vs. Murderers" we now regard as methodologically

inappropriate, though as the present document suggests, we still intend to compare the two offender groups. The seventh exploratory concept ("Marital Status Discrepancy Among Batterers and Murderers") was fruitless due to missing data on wives and small cell frequencies; to the extent the hypothesis of wives' higher status could be explored it was not supported, though the results are inconclusive for the above-stated reasons.

Our current plan calls for the following manuscripts:

(1) "Psychopathology Among Mentally Disordered Murderers and Batterers." This manuscript will review the findings on psychiatric diagnosis, alcoholism (including MAST data), and the Buss-Durkee Hostility Inventory.

(2) "Paraphiliac Experiences Among Mentally Disordered Murderers and Batterers." This brief research note will report our observation, review its theoretical significance, and suggest further study.

(3) "Psychiatric Treatment and Other Help-Seeking Preceding Murder and Battery". This manuscript will review the findings reported above under Psychiatric History, Signs and Symptoms Preceding the Offense, Parasuicide History, Stressful Life Events, and Help-Seeking Before the Offense.

(4) "Murders and Batteries by the Mentally Disordered." This manuscript will compare offense data for the two offender groups, including the above-reported data on Alcohol at the Time of the Offense, Location of the Offense, Weapon Used, Victims, and Criminal History.

(5)   The final product expected is a multivariate analysis following up the observations reported above for childhood "predictors," as noted in that section of this report.

We welcome any suggestions for further analyses or for other data sources with which to compare our results.

REFERENCES

Feighner JP, Robins E, Guze SB, Woodruff RA Jr., Winokur G, Munoz R: Diagnostic Criteria for use in psychiatric research. Arch Gen Psychiatry 26:57-63, Jan 1972.

Greenberg DF: Mathematical Criminology. New Brunswick, New Jersey: Rutgers University Press, 1982.

Nie NH, Hull CH, Jenkins JG, Steinbrenner K, Bent DH: Statistical Package for the Social Sciences. New York: McGraw-Hill, 1975.

Stoller RJ: Perversion: the Erotic Form of Hatred. New York: Pantheon Books, 1975.

FIGURE 2

CIVILIANS SHOT BY POLICE IN CHICAGO, 1974-1980

Shot

150 (137) (145)
140
130
120
110
100 (98) (99)
90 (84)
80 (79)
70
60 (61)
50
40
30
20
10
0
1974 1975 1976 1977 1978 1979 1930