

Capital Versus Noncapital Murderers

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This study compares three groups of murderers: those who have received a death sentence ($n = 18$), those who were eligible to receive a death sentence but did not have it sought against them ($n = 18$), and those who were not eligible for the death penalty ($n = 18$). A retrospective record review of these 54 pretrial detainees in South Carolina who underwent court-ordered competency and criminal responsibility evaluations was completed comparing the following variables: age, race, marital status, educational level, prior legal history, relationship to the victim, race of the victim, existence of a codefendant, prior psychiatric history, psychiatric diagnoses, substance abuse history, use of substances at the time of the crime, Wechsler Adult Intelligence Scale (WAIS) or WAIS-Revised Full Scale IQ, and evidence of organic impairment. Statistically significant findings included race of the murderer, race of the victim, relationship to the victim, and existence of a codefendant. Death row inmates were more likely to be Caucasian and much more likely to have murdered a Caucasian than a non-Caucasian victim. Death row inmates were less likely to know their victims and more likely to have a codefendant. Psychiatric and organic findings did not differ among the groups, but the rate of organic findings and substance abuse was high in all three groups.

In 1977, South Carolina became one of many states to reinstate the death penalty following the U.S. Supreme Court decision in *Gregg v. Georgia*,¹ which de-

clared the death penalty constitutional provided that it was not arbitrary in its application. Many states subsequently enacted statutes that created guidelines for the application of the death penalty to those convicted of murder. South Carolina created a separate sentencing phase in which the fact finder balances the presence of aggravating and mitigating factors. Aggravating circumstances include committing murder during the commission of another serious felony, committing a double murder, murdering a peace officer or court officer, soliciting another to commit murder, or causing a risk of death to other persons during a murder.

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Mitigating factors include, but are not limited to, the presence of a mental or emotional disturbance at the time of the murder, impaired capacity of a defendant to appreciate the criminality of his conduct or to conform his conduct to the requirements of the law, acting under duress, having no significant criminal record, and having impaired mentality.² As mitigating factors, psychiatric and neurological impairments frequently become issues in the sentencing phase of death penalty trials.

Few studies have examined psychiatric characteristics of death row inmates. Lewis *et al.*³ evaluated 15 death row inmates with imminent executions. All had histories of severe head injury, 5 had major neurological impairment, and 7 others had less severe neurological problems. Eight had a major mental illness. No studies show whether these findings are specific to murderers condemned to death. Lewis hypothesized that death row inmates comprise an especially neuropsychiatrically impaired population whose psychiatric and neurological impairment make them less capable than other defendants to obtain competent legal representation or to report their impairments to their attorneys for use in mitigation. In one study comparing death row murderers and life sentence murderers, Heilbrun⁴ found a "dangerous" profile of high antisociality and low intelligence measures among men sentenced to death.

Characteristics of murderers, regardless of the sentence imposed, have been reported in other studies. Nestor⁵ examined the characteristics of younger murderers (age <25) and older murderers

(age >30) and found that the full scale IQ, as measured by the Wechsler Adult Intelligence Scale-Revised (WAIS-R), was in the average range for both groups, 101.7 and 97.7, respectively. However, the younger group scored significantly lower on reading and spelling tests, suggesting a developmental learning disability, despite a normal average intelligence. Yarvis⁶ studied 100 men and women charged with homicide. Using DSM III criteria, 35 percent had a substance abuse condition, 29 percent had schizophrenia or an affective psychosis, 9 percent had dysthymic disorder, and 13 percent had other Axis I disorders. Antisocial personality disorder criteria were met in 38 percent and borderline personality disorder criteria in 18 percent. Tiihonen *et al.*⁷ reported the prevalence of psychiatric diagnoses in a study of 107 subjects who had committed homicide. A personality disorder was found in 65 percent of the male subjects, and alcohol dependence was found in 60 percent. Major mental illness was less common, with schizophrenia found in 5 percent and a major affective disorder found in 8 percent. Other studies have duplicated the prevalence of substance abuse among defendants accused of homicide. Yarvis⁸ conducted an eight-year study of substance abuse patterns in 100 subjects charged with murder or non-negligent manslaughter. More than half of the subjects experienced an active substance abuse problem in proximity to their homicidal behavior, and almost half were intoxicated at the time of the homicidal events. Alcohol was the predominant substance abused. Furthermore, murderers were

Capital Versus Noncapital Murderers

found to abuse substances at rates that exceeded 1.8 to 8 times the rates observed in the general population. Finally, there is existing literature indicating that murderers of white victims are overrepresented in capital convictions.⁹

Since relatively few studies have attempted to document the psychiatric and neurological impairments of death penalty defendants, the authors wanted to investigate the prevalence of these impairments in pretrial defendants who subsequently received a death sentence. More important, we wished to identify differences between three groups: murderers who received a death sentence, murders who were eligible to have the death penalty sought against them but did not, and murderers who were not eligible, by virtue of a lack of aggravating circumstances, to receive a death sentence.

Method

All of the subjects in this retrospective record review underwent court-ordered pretrial competency and criminal responsibility evaluations at the South Carolina Department of Mental Health. These subjects were referred from counties across South Carolina.

As of July 1, 1996, there were 75 inmates awaiting execution on South Carolina's death row.¹⁰ All of these inmates are men. From this group, 25 had been evaluated at the South Carolina Department of Mental Health between 1982 and 1996. Complete psychiatric records for 18 of these subjects were located; these were the subjects who comprised our death penalty (DP) group ($n = 18$). Two groups matched for evaluation time pe-

riod and sex were randomized. The first group consisted of 25 murder defendants charged with a capital murder but who did not have the death penalty sought against them. Complete records were obtained on 18 of these subjects and these comprised our capital murder (CM) group ($n = 18$). The second control group consisted of 25 subjects who had been charged with a murder that did not meet the aggravating circumstance criteria for a capital offense. Complete records were obtained for 18 of these subjects, who comprised our murder-only (MO) group ($n = 18$).

Variables reviewed included age, race, marital status, educational level, prior legal history, relationship to the victim, race of the victim, existence of a codefendant, prior psychiatric history, psychiatric diagnosis, substance abuse history and use of alcohol or drugs at the time of the crime, WAIS or WAIS-R Full Scale IQ, and evidence of organic impairment. Organic impairment was defined as an abnormal electroencephalogram (EEG), an abnormal magnetic resonance imaging (MRI) or computed tomography (CT) scan of the brain, an abnormal neurological examination conducted by a board-certified neurologist, a history of a head injury with a documented loss of consciousness, or a difference in verbal and performance IQ of more than 15 points.

Results

The mean ages of the control groups were similar to the DP group mean age of 29.7 years, with the CM group mean age at 29.5 years and the MO group mean age at 31.9 years. The racial composition of

Table 1
Rates of Mental Illness Among the Three Study Groups

	DP Group (<i>n</i> = 18)	CM Group (<i>n</i> = 18)	MO Group (<i>n</i> = 18)
Major mental illness	1 (6) ^a	2 (11)	3 (17)
Organic mental disorder	0	1 (6)	2 (11)
Antisocial personality disorder	0	2 (11)	3 (17)
Other personality disorder	1 (6)	1 (6)	1 (6)
Mental retardation/BIF ^b	5 (28)	8 (44)	10 (55)

^aNumbers in parentheses represent percent of total.

^bBIF, borderline intellectual functioning.

the DP group was 11 Caucasians and 7 African Americans. The CM group contained only 2 Caucasians and 16 African Americans. The MO group was composed of 9 Caucasians and 9 African Americans. The differences in these racial compositions were statistically significant ($p < .005$ using χ^2 analysis). Marital status at the time of the murder was similar among groups. The DP group contained six married subjects and the other groups each contained five. The educational level of the groups was also similar, with the DP and CM groups containing slightly more subjects having 12 or more years of education (DP = 12 years, CM = 11 years) compared with the MO group (MO = 7 years). Fifteen DP subjects had prior felony convictions compared with 13 CM subjects and 11 MO subjects.

The relationship of the murderer to the victim was another statistically significant difference between groups ($p < .025$ using χ^2 analysis). Only one DP subject had murdered a victim who was a family member or girlfriend. Four CM subjects and nine MO group subjects had committed homicide against a family member or girlfriend. The most distinguishing variable between groups

was the race of the victims ($p < .005$). In the DP group, 22 of 25 total victims were Caucasian. In contrast, the majority of victims (16 of 21) in the CM group were African Americans, while the MO group had 10 Caucasian and 8 African American victims. Also, the subjects in the DP group were much more likely to have committed their crimes with a codefendant ($p < .01$). Eleven of the DP subjects had a codefendant compared with only four of the CM subjects and three of the MO subjects.

Forty-seven percent of all the subjects in this study had a history of prior inpatient or outpatient psychiatric treatment. Nine DP subjects, 7 CM subjects, and 10 MO subjects had prior contact with a psychiatrist. In all three groups, there were low rates of major mental illness (formal thought disorder or major mood disorder) compared with the rate of major mental illness found in pretrial forensic evaluations conducted in our facility (25%). Organic mental disorders, antisocial personality disorder, and other personality disorders (Table 1) were also found at low rates in all three groups. Impaired intellectual function, either mental retardation or borderline intellec-

Capital Versus Noncapital Murderers

Table 2
Rates of Substance Abuse Diagnoses and Substance Use at the Time of Murder Among the Three Study Groups

	DP Group (n = 18)	CM Group (n = 18)	MO Group (n = 18)
Substance abuse or dependence	14 (78%)	14 (78%)	12 (67%)
Substance use at time of crime	6 (33%)	6 (33%)	7 (39%)

tual functioning, was more common. There was no significant difference in the prevalence of psychiatric diagnoses among groups.

The rate of substance abuse and dependence was high in all three groups with 75 percent of all subjects meeting diagnostic criteria for a substance use disorder (Table 2). Approximately half of the subjects with a substance use disorder were under the influence of a substance at the time of the homicide. There was no significant difference in substance use patterns among groups.

The mean IQ of the DP group was 90.3 compared with 80.2 for the CM group and 79.1 for the MO group. Due to the wide range of IQ in the DP group (59 to 122), this difference between groups was not statistically significant.

Finally, there were a wide variety of organic findings in all groups (Table 3). Forty-eight percent of the subjects in this study had evidence of organic impair-

ment. EEG abnormalities included abnormal spikes, low-voltage irregular background activity, isolated left temporal sharp waves, occipital and temporal asymmetry, and irregular foci. CT and MRI abnormalities included enlarged lateral ventricles, a hamartoma in a right lateral ventricle frontal horn, an old frontal infarct, moderate cerebral atrophy, and gliosis and encephalomalacia in a right temporal lobe. Neurological exam findings included abnormal and asymmetric reflexes, seizure disorders, familial spinocerebellar disease, and an impaired tandem gait. Twenty-four percent of all subjects had a history of a significant head injury with documented loss of consciousness, and several subjects had significant differences in their verbal and performance IQ (Verbal-Performance IQ difference, 16 to 33). There was no significant difference in the rate of organic findings among groups.

Table 3
Rate of Organic Findings Among the Three Study Groups

	DP Group (n = 18)	CM Group (n = 18)	MO Group (n = 18)
EEG abnormality	3	3	2
MRI/CT abnormality	1	1	3
Abnormal neurological exam	2	2	4
Head injury/loss of consciousness	4	3	6
Verbal-Performance IQ >15	3	3	1
None	9	9	10
Any	9	9	8

Discussion

There were four statistically significant findings among groups: the different racial composition, the racial composition of the victims, the presence of a codefendant at the time of the crime, and the relationship to the murder victim. There were more Caucasians in the DP group than in the other groups. There were substantially more African Americans in the CM group. The racial composition of the DP group does not differ significantly from the racial composition of South Carolina's death row population as a whole.¹⁰ Thus, Caucasian death row inmates are not overrepresented in our sample, nor does it appear that Caucasian death penalty defendants are more likely to be referred for a pretrial competency and criminal responsibility evaluation. A likely explanation for these racial differences involves the race of the victim, as the difference between groups was most pronounced on this variable. From this data, it would appear that the race of the victim is the more important factor in determining whether the death penalty is sought, with defendants who have murdered Caucasian victims being more likely to face the death penalty. Further studies are needed in which the race of the victim is a controlled variable.

The larger number of codefendants in our DP group was not surprising, for two reasons. First, solicitation to commit murder is an aggravating circumstance in South Carolina and can be used to justify seeking a death sentence. More important, the presence of a codefendant would enable the prosecution in a death penalty

case by providing a witness to testify against the defendant in exchange for escaping a death sentence.

Finally, the lack of a prior relationship to the victim was a hallmark of our DP subjects. The one subject in our DP group who had a relationship to his victims had the aggravating circumstance of having committed a double murder. There are several reasons that prosecutors may be less likely to seek the death penalty when the victim is a family member. If the murder occurred during a domestic dispute, then there is the possibility that a "heat of passion" argument could be used by the defense to reduce the charge to manslaughter. Also, surviving family members, especially children of a deceased victim, are placed in an awkward position during the sentencing phase of a death penalty trial. This is particularly true if the murder was committed by the surviving parent. The prosecution may not seek a death sentence to avoid putting family members in such a position in regard to victim impact testimony during a sentencing phase.

A majority of subjects from each group had prior felony convictions, however, it is not surprising that more DP subjects than in other groups had this history, since such information is often presented to the jury during the sentencing phase. Although a history of psychiatric treatment was not a significant differentiating variable between groups, almost half of all our subjects had seen a psychiatrist in their lifetime. The rate of psychiatric diagnoses in this study differed from earlier studies (Table 4). Subjects in our study were more likely to have a substance

Table 4
Comparison of Rates of Psychiatric Diagnoses Among Studies of Murderers (%)

	Major Mental Illness	Substance Abuse	Substance Use at Crime	Antisocial Personality
Yarvis ⁶	29	35 (1990) 58 (1994)	48	38
Tiihonen <i>et al.</i> ⁷	13	60	—	21
Lewis <i>et al.</i> ³	53	—	—	—
This study (Frierson <i>et al.</i>)	11	75	35	9

abuse diagnosis and less likely to have a diagnosis of a major mental illness. The prevalence of antisocial personality disorder was much lower than in prior studies of murderers. It is possible that the psychiatrists conducting these evaluations were less likely to make this diagnosis because the purpose of these evaluations was to determine competency and criminal responsibility, and such a diagnosis is excluded from consideration by South Carolina's criminal responsibility statute.¹¹

Intelligence measurements and organic findings also differed from prior studies (Table 5). While the rate of organic findings was less than in the Lewis³ study, our definition of organic impairment was more stringent. Although organic findings were common in the subjects in our

study, these findings seldom led to an actual diagnosis of an organic mental disorder. The usefulness of these findings as mitigation in sentencing remains unclear. Lewis' hypothesis that death penalty inmates may be more neuropsychiatrically impaired than other murderers is not confirmed in our study. The rate of organic findings in our study was high for all three groups. Subjects in our DP group tended to be more intelligent and more educated than other murderers. However, this difference was not statistically significant, and members of our study groups had lower measured intelligence than in most prior studies.

In summary, the findings in this study suggest that death row inmates referred for competency and criminal responsibility evaluations do not significantly differ

Table 5
Comparison of Rate of Organicity and Mean IQ Among Studies of Murderers

	Evidence of Organic Impairment (%)	Mean IQ
Lewis <i>et al.</i> ³	80	86.6 (DP study)
Heilbrun ⁴	—	98.6 (all murderers)
Nestor ⁵	—	101.7 (younger murderers) 97.7 (older murderers)
This study (Frierson <i>et al.</i>)	50 (DP group) 50 (CM group) 44 (MO group)	90.3 (DP group) 80.2 (CM group) 79.1 (MO group)

from other murderers in rates of psychiatric diagnoses, organic mental impairment, substance abuse, intelligence, legal history, or psychiatric history. Future studies are needed to determine whether this lack of statistical differences would apply to the entire group of murderers, and not just those referred for competency and criminal responsibility evaluations. Demographic characteristics of the crime appear more significant in determining who may receive a death sentence. As the understanding of the brain increases, organic findings, which appear often in murder defendants, may become more significant in the sentencing phase of death penalty trials. Other studies are needed to confirm these findings and to compare rates of these findings in capital and noncapital murderers.

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