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ALCOHOL, DRUGS AND MURDER: A STUDY OF CONVICTED HOMICIDE OFFENDERS

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ABSTRACT

Data on 1,887 convicted homicide offenders were examined to discern the relationships between alcohol and/or drug use and murder. Information obtained through confidential interviews at state prisons and local jails provided demographics and information on drinking and drug use immediately before the crime and relevant data on the offenders' typical drinking style. About 50 percent of the offenders were under the influence of alcohol at the time of the crime, similar to the rate found by other studies. Substance use was more prevalent than nonuse before the homicide: 36 percent used alcohol only, 13 percent used both alcohol and drugs, 7 percent used drugs only, and 43 percent did not use either. A heavier style of drinking is much more prevalent among homicide offenders than in the general population. Blacks showed the least involvement with alcohol before homicide. A direct role for alcohol is indicated by the finding that homicides were associated with a heavier than usual episode of drinking and the large mean alcohol consumption contiguous to the crime (9.3 ounces of alcohol or about 18 drinks). Evidence also indicates that a unique relationship existed between drug use and homicide.

A large body of literature depicts the well-known association of alcohol and drugs with crime and delinquency (e.g., Collins, 1981; Elliott, Huizinga and Ageton, 1985; Inciardi, 1981; Johnson et al., 1985). However, much less is known about the impact of drug and alcohol use immediately prior to the commission of specific crimes. This study examined the relationship between substance use and violent interpersonal aggression, in particular the most violent of crimes—homicide. Homicide was selected because it is the

ultimate act of violence, one that may reasonably be thought to be affected by substance use because it is a crime of passion that often is the result of a loss of self-control.

The alcohol-violence nexus has more support, both theoretical and in terms of studies of violent behavior, than does the drug-violence relationship. The question of how alcohol is linked to or causes violent behavior, however, is still unclear although many explanations have been offered, including 1) a direct central nervous system/biochemical impact (Berry and Brain, 1986); 2) an indirect disinhibition effect (Room and Collins, 1983); 3) sociocultural factors, for example, societal variations in normative behavior (Coid, 1986; MacAndrew and Edgerton, 1969); 4) interaction with certain personality characteristics, for example, power, (McClelland and Davis, 1972); 5) impairment of cognitive ability leading to miscommunication (Leonard, 1984; Pernanen, 1981); 6) situational factors, for example, the drinking environment (Roman, 1981); 7) expectations, for example, believing it is easier to pick a fight after a few drinks (Brown et al., 1980); or 8) a combination of several of the above factors (Collins, 1983; for a current review, see Collins, 1988).

Studies of violent offenders have found that they are much heavier drinkers than demographically matched samples of the general population (Crawford et al., 1982; Welte and Miller, 1987). In the case of homicide, it has frequently been found that both the perpetrator and the victim had been drinking. Wolfgang's (1958) classic study of homicide in Philadelphia found that 55 percent of homicide offenders were under the influence of alcohol at the time of the offense. In the most methodologically sound studies of arrestees reviewed by Roizen (1982), 55 percent of those arrested for homicide had been drinking immediately prior to the crime. In both New York City (Haberman and Baden, 1978) and in upstate Erie County, New York (Welte and Abel, 1989), 42 percent of homicide victims were under the influence of alcohol, while 46 percent of victims in Los Angeles tested positive for alcohol (Goodman et al., 1986). It should be noted that data on drinking by victims are much more readily available than similar data on offenders.

Most drug-related crime is nonviolent, economic crime performed to gain the money required for survival and to purchase more drugs (Johnson et al., 1985; Wish and Johnson, 1986). To explicate drug-related violence, Goldstein (1985) has posited a "tripartite conceptual framework." The first component is psychopharmacological violence resulting from the direct effects of drug use on the central nervous system. There is some evidence that relates violent crime to withdrawal (Goldstein, 1979), but much more evidence links the pharmacological effects of PCP (phencyclidine) to violent outbursts (Peterson and Stillman, 1978; Simonds and Kashani, 1980). However, some drugs, such as antipsychotics and most antidepressants, can be expected to decrease aggression (Leavitt, 1982:450). Economic compulsive violence to acquire money for drugs, such as mugging, is the second component of the conceptual framework. However, studies of heroin addicts have shown that they avoid violent methods of economic crime when nonviolent alternatives (e.g., shoplifting) are available (Johnson et al., 1985). Systemic violence associated with the distribution of drugs, such as territorial disputes among dealers, retribution for either bad debts or bad drugs, and robberies of dealers, comprises the third component of Goldstein's framework.

It is the third component of Goldstein's framework, systemic violence, that appears to account for the greatest bulk of drug-related homicides. The significant number of drug-related murders reported by police and in the media supply ample evidence to support this concept. For example, the New York City Police Department (1983) considered about one-quarter of all homicides to be drug-related.

The large amount of covariation among deviant behaviors has led to the concept of a general deviance factor (Donovan and Jessor, 1985; Elliott and Huizinga, 1984). The general deviance factor, or syndrome, is based on the ideas that engaging in one type of

deviance leads to participation in other types of deviance and/or that various deviant behaviors stem from similar influences. A general deviance factor predicts significant overlap between alcohol and drug use and interpersonal violence.

The major aim of this research was to enhance understanding of how drinking and drug use are related to murder by examining the role of psycho/social/pharmacological influences versus the explanation that persons who commit murder also tend to be persons who abuse substances. Studies of substance use by offenders at the time of the crime are rather rare because of the difficulties of obtaining this type of information. For example, many offenders are not apprehended, and the possibility exists of police bias in reporting and/or recognizing that suspects are under the influence.

The sample consisted of all homicide offenders interviewed for the *Survey of Inmates of State Correctional Facilities, 1979* (Bureau of Justice Statistics, 1981) and the *Survey of Jail Inmates, 1978* (Bureau of Justice Statistics, 1983). Out of the sample of 5,247 jail inmates (in 400 jails) and 11,397 prison inmates (in 215 state prisons) throughout the United States, there were 1,887 convicted homicide offenders. The data include standard demographic variables (e.g., sex, age, race) as well as responses to a confidential, face-to-face interview that obtained detailed information on drug and/or alcohol use immediately prior to the crime and the requisite information to determine average daily alcohol consumption for the year prior to the crime.

These data were used to make the following three comparisons:

1. patterns of the various alcohol/drug-use categories (i.e., alcohol only, drugs only, both alcohol and drugs, or neither) prior to the crime;
2. drinking styles of the respondents in these categories with drinking by similar demographic groups in the general population;
3. "typical" drinking of offenders to their drinking immediately prior to the crime.

METHODOLOGY

The data used in this study were obtained by the U.S. Bureau of Census in national surveys of jail and prison inmates conducted for the Bureau of Justice Statistics (Bureau of Justice Statistics, 1981; 1983). A multistratified probability sampling scheme was used to select 400 local jails and 215 state prisons; a similar method was used to select inmates from within each facility. The sample was designed to be representative of the population of these institutions. Face-to-face interviews, with assurances of the confidentiality of responses, provided information on the inmates' backgrounds, including drug and alcohol use. The results of the two separate surveys were merged to create one unified data set with no significant difficulty because the questions pertinent to this study were nearly identical in the two surveys. This study focused on the 1,887 convicted homicide offenders. Of these, only 144 were in local jails and were presumably awaiting transportation to prison. All of the persons convicted of homicide (1,398) and manslaughter—nonvehicular (489) were grouped as homicide offenders.

The interviews were conducted after sentencing so that the likelihood of prisoners misrepresenting their drug and alcohol consumption to help their court cases was minimized. Offender reports of alcohol and drug use in previous research were found to be rather reliable. Wish et al. (1983) found that urinalysis confirmed reported drug use by street criminals 94 percent of the time. No significant difference in mean alcohol consumption before the crime was found by Myers (1983) when comparing prisoners' self-reports with reports by their female cohabitants on the prisoners' use. The murder is apt to be an event of rather great saliency to the offender, even after a substantial period of time/incarceration has passed. Thus, it is likely that murderers remember much of their activities surrounding this event. Moreover, research has found long-term recall of alcohol use and life events, over about eight years, to be reliable (Sobell et al., 1988). The findings of

previous research on the self-reports of criminals and the reliability of long-term recall support making comparisons among the various incarcerated groups.

The offender's age at the time of the crime was estimated by using the earliest date of involvement with the criminal justice system after the crime. The Hispanic variable is mutually exclusive from the Black, white, and "other" race categories. A racial category called "other" was used because only a small number of cases represented a variety of racial groups, such as American Indians, Asians, Pacific Islanders, and any others.

To examine and contrast the patterns of drug and alcohol use by the homicide offenders, the means of various groups were compared using ANOVA, and cross-tabulations were examined for categorical variables. Kendall's Tau-c was used as a statistical measure of the strength and significance of the relationships shown in the cross-tabulations. Some percentages may not total 100 percent because of rounding.

RESULTS AND DISCUSSION

In this sample of homicide offenders it was found that more than half (56 percent) were under the influence of either alcohol or drugs at the time of the crime. Of those offenders using a substance, alcohol was the most commonly used (36 percent), followed by a combination of alcohol and drugs (13 percent), and the least common pattern was drug use only (7 percent). The total percent using alcohol, alone or in combination with other drugs, was 49 percent, which is similar to that found by other studies (see Voss and Hepburn, 1968; Wolfgang, 1958). When these results were compared to the overall prevalence for all types of offenders included in the surveys, it was found that more murderers used alcohol only (36 percent versus 29 percent) and that fewer murderers used drugs only (7 percent versus 14 percent).

The age pattern for substance use by homicide offenders is shown in Table 1. The most notable finding is that the youngest cohort (ages 15–24) showed the most drug involvement, as they comprised more than two-thirds of those who used drugs prior to the homicide. Drug and alcohol use show inverse relationships with age. Drug use decreased with age and was virtually absent in those offenders over 44 years of age. The mean ages of each of the groups (also shown in Table 1) confirm the differences among the alcohol/drug use groups. The mean ages of the drug-involved groups were significantly lower than the ages of the alcohol-only and no-substance-use groups (23.5 and 23.3 years versus 30.7 and 28.8 years), which reflects the national trend in the United States of significantly less drug use by persons older than 25 years of age. This finding is likely the result of a period effect for drug use in that drugs were less available to the older homicide offenders and to offenders who commited their crimes before the increased prevalence of drug use during the 1970s and 1980s.

Men comprised the great preponderance (94 percent) of homicide offenders in this sample (see Table 2). A majority of women (59 percent), as compared to a minority of the men (42 percent), did not use any psychoactive substance. Male offenders used alcohol, alone or in combination with other drugs, prior to the crime much more frequently than did women (51 percent versus 34 percent), which reflects the fact of greater drinking by men in the general population (Clark and Midanik, 1982:9). The frequency of using only drugs, however, was the same (7 percent) for both sexes, although the national trend is for greater drug use by males than by females (Miller et al., 1983).

The most conspicuous result of comparing substance use by race was that Blacks were the group with the least overall involvement with substances, as shown by a majority (52 percent) not under the influence of any psychoactive substance at the time of the crime (Table 3). National surveys have found that Blacks have high rates of alcohol abstention but also have rates of heavy drinking similar to those for whites (Clark and Midanik, 1982: 30). However, the use of alcohol by Blacks before the homicide was much less frequent than that by other racial groups, particularly

TABLE 1

ALCOHOL/DRUG USE PRIOR TO THE HOMICIDE BY AGE (IN PERCENT)

	Percentage in Each Age Group with Abuse Pattern						*Mean Age of Each Abuse Group*
Abuse Pattern	*15–24*	*25–34*	*35–44*	*45–54*	*Over 55*	*Total*	
No drugs or alcohol	48	28	13	6	4	43	28.8
Alcohol only	37	33	16	10	4	36	30.7
Drugs only	67	26	6	1	0	7	23.3
Both alcohol and drugs	69	23	7	1	0	13	23.5

Note: Mean age ANOVA N = 1,823 F = 36.8 df = 3 Significance = .0000
Tau-c = −.08 t = −4.8 Significance <.0005

when the alcohol-only and both-drugs-and-alcohol categories were summed and compared. This indicates that Black homicides are less related to alcohol consumption than are homicides by other races. Also noticeable is the finding that approximately similar percentages of each race used only drugs before the crime. Although different drugs may have been used, this similarity existed for all races, indicating that it is likely that a general characteristic of drug use or users accounts for this result.

The self-reported drinking styles of homicide offenders for the year prior to the crime were: 17 percent abstained from alcohol; 34 percent were light-to-moderate drinkers (2 drinks or less per day); 17 percent were heavier drinkers (2–5 drinks per day); and 33 percent were much heavier drinkers (more than 5 drinks per day). The prevalence of a heavier or a much heavier style of drinking was substantially higher in this population of homicide offenders than in the general population (50 percent versus 13 percent overall or 21 percent for males in the general population; see Clark and Midanik, 1982:46). A full third of the prisoners averaged 5 or more drinks per day for the year prior to the murder. This finding lends credence to the idea that persons who commit murder are also the type of people who drink a great deal of alcohol.

TABLE 2

ALCOHOL/DRUG USE PRIOR TO THE HOMICIDE BY SEX (IN PERCENT)

Abuse Pattern	*Male*	*Female*	*Total*
No drugs or alcohol	92* (42)**	8 (59)	43
Alcohol only	95 (37)	5 (29)	36
Drugs only	94 (7)	6 (7)	7
Both alcohol and drugs	98 (14)	2 (5)	13
Total	(94)	(6)	

*Row percentages above column percentages.
**Column percentages in parens.
Note: N = 1,844 Tau-c = .04 t = 3.7 Significance <.001

The age distribution (figure 1) shows that about a third of each of the groups under 45 years of age had a much heavier style of drinking. The prevalence of a heavier or much heavier style of drinking was greater for all of the homicide offenders' age groups than that found for similar groupings in a national survey (Clark and Midanik, 1982:29). Black and Hispanic murderers had lower rates of heavier drinking than offenders of other races (figure 1).

The relationship between drinking style and alcohol and/or drug use at the time of the homicide is illustrated in Table 4. It was uncommon for much heavier drinkers to abstain from alcohol at the time of the crime; only 18 percent of this group did so. Three-quarters of those not under the influence of any

TABLE 3

ALCOHOL/DRUG USE PRIOR TO THE HOMICIDE BY RACE (IN PERCENT)

Abuse Pattern	*White*	*Black*	*Hispanic*	*Other*	*Total*
No drugs or alcohol	30*	61	8	1	43
	(34)**	(52)	(39)	(19)	
Alcohol only	43	45	9	3	36
	(41)	(32)	(37)	(48)	
Drugs only	39	44	9	3	7
	(8)	(7)	(7)	(9)	
Both alcohol and drugs	48	37	12	4	13
	(17)	(10)	(17)	(24)	
Total	(38)	(51)	(9)	(2)	

*Row percentages above column percentages.
**Column percentages in parens.
Note: N = 1,844 Tau-c = −.07 t = 3.7 Significance <.001

substance at the time of the crime were abstainers or light-moderate drinkers. The group that used drugs only was primarily composed of abstainers and light-moderate drinkers, but about one-quarter were much heavier drinkers, giving some support to the concept of generalized drug deviance. Providing much greater support to the general deviance concept was the large proportion of much heavier drinkers who made up 64 percent of those on both drugs and alcohol during commission of the homicide. The proportion of much heavier drinkers in the both-alcohol-and-drugs group was even higher than the proportion of much heavier drinkers in the alcohol-only group.

The group that used both alcohol and drugs coincident with the homicide had the greatest mean alcohol consumption per day for the year previous to the crime (figure 2). This finding adds more support to the general deviance

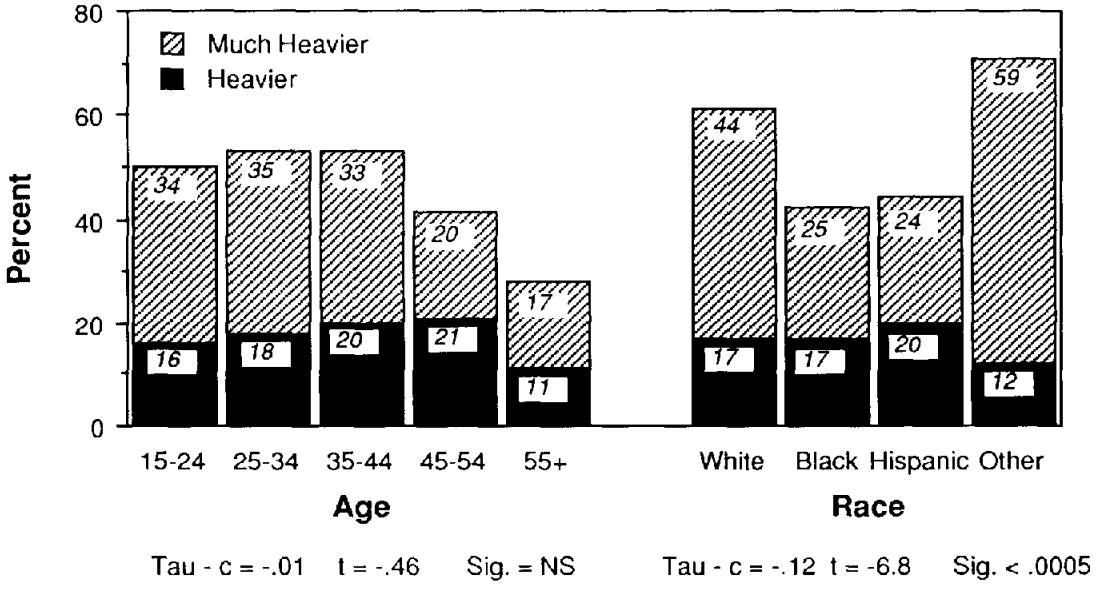

Figure 1. Age and Race Patterns of Heavier and Much Heavier Drinking Styles by Homicide Offenders

TABLE 4

ALCOHOL/DRUG USE PRIOR TO THE HOMICIDE BY TYPICAL DRINKING STYLE (IN PERCENT)

	Typical Daily Drinking in Year Before the Crime				
Alcohol/Drug Use Prior to the Crime	*Abstainer*	*Light-Moderate (2 drinks or less/day)*	*Heavier (2–5 drinks/day)*	*Much Heavier (>5 drinks/day)*	*Total*
No drugs or alcohol	32*	43	11	13	44
	(84)**	(56)	(29)	(18)	
Alcohol only	0	30	24	46	36
	(0)	(31)	(52)	(51)	
Drugs only	35	27	11	26	7
	(15)	(6)	(5)	(6)	
Both alcohol and drugs	0	18	18	64	13
	(0)	(7)	(14)	(26)	
Total	(17)	(34)	(17)	(33)	

*Row percentages above column percentages.
**Column percentages in parens.
Note: N = 1,828 Tau-c = .36 t = 21.7 Significance <.0005

hypothesis because these offenders appear to have spent much of their time under the influence of any psychoactive substance that was available, as shown by their average daily alcohol intake of about 8 ounces (more than 16 drinks/day). The second highest daily alcohol consumption was that of the alcohol-only group, which averaged about 5 ounces (10 drinks) per day. The drinkers in the no-drugs-or-alcohol group consumed the least amount of alcohol on a daily basis (2 ounces or 4 drinks), although the amount was still greater than that of the general population.

An examination of the quantity of alcohol consumed before the crime by sex found that women drank about as much alcohol as men

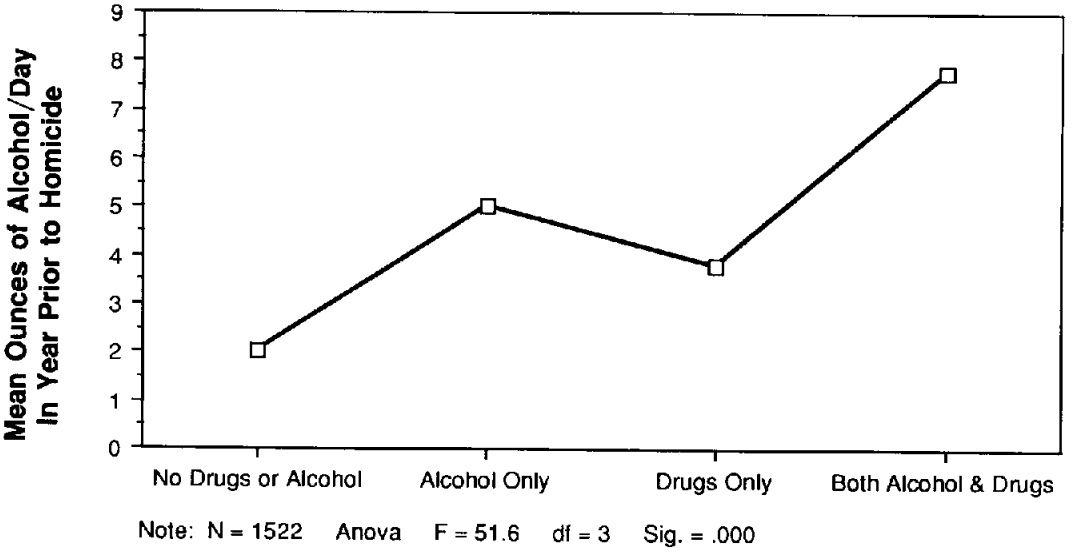

Figure 2. Mean Daily Alcohol Consumption Excluding Abstainers in the Year Before the Crime by Alcohol/Drug Use Prior to the Homicide

(6.8 ounces or 14 drinks versus 9.4 ounces or 18 drinks: 1 *df*; $F = 2.43$; $p = .12$). This result approaches significance in the general direction of sex differences in drinking among the general population, but more importantly it aptly illustrates the association of very high alcohol consumption with the commission of murder. A similar examination by race found that not only was there a lower percentage of Black drinkers (see Table 3) but that those Blacks who did drink consumed the least amount of any racial group (whites 11.7 ounces or 23 drinks; Blacks 6.2 ounces or 12 drinks; Hispanics 9.1 ounces or 18 drinks: 2 *df*: $F = 34.9$; $p = .0000$). Although in the range of about 12 drinks, the smaller-than-average alcohol intake by Blacks, along with the lower percentage of Blacks under the influence of alcohol at the time of the homicide, provides evidence that Black homicides are less related to drinking than those committed by other racial groups.

No significant differences were seen in the amount of alcohol consumed before the homicide by the various age categories (analysis not shown, $F = 1.6$; $df = 4$; $p =$ ns). This finding is important because it indicates that all age groups consumed a large amount of alcohol contiguous to the crime, regardless of the existence of differences in their typical style of drinking.

About 75 percent of those who reported not drinking before the homicide were classified as either abstainers or light-moderate drinkers in the year before the crime (see Table 5). The abstention rate before the crime decreased as the amount of typical drinking in the year before the crime increased. It is not surprising that a majority of offenders did not drink before the crime since about one-fifth of the sample abstained in the year before the crime and a majority of the light-moderate drinkers did not drink before the crime; it is not unusual for lighter drinkers to have a large number of nondrinking days. There was a tendency for alcohol consumption before the crime to be higher for those whose typical drinking style was heavier or much heavier.

The finding that a majority of murderers did not drink before the homicide does not necessarily mean that alcohol was not a substantial factor. Abstention rates show the prevalence of drinking, not its impact on the situation. It is more informative to examine the proportions within specific consumption categories of those who drank before the homicide since these are the only cases in which the influence of alcohol is indicated. Of the light-moderate drinkers who drank before the crime, almost one-half (18/38) drank 5 or more drinks, substantially more than their usual consumption. High proportions of the heavier drinkers (73 percent, 48/66) and much heavier drinkers (91 percent, 69/76) consumed at least 5 drinks before the homicide. A total of 74 percent of those who drank prior to the crime ingested at least 5 drinks. For those who drank, the light-moderate drinkers averaged 9 drinks, the heavier drinkers averaged about 14 drinks, and the much heavier drinkers averaged about 24 drinks. This relationship between homicide and a greater-than-average intake of alcohol supports a direct impact of alcohol on aggressive behavior and/or an alcohol-based impact on cognition or expectations.

Research by Conners et al. (1987) on alcohol expectancies found a direct relationship between alcohol intake and a factor measuring the belief that alcohol helps a person to feel in charge. Conners et al. found this relationship to be especially strong for heavier types of drinkers (i.e., alcoholics and problem drinkers). The present research demonstrates that the effect of alcohol on aggression may be directly impacted by the amount of alcohol consumed. Large doses of alcohol may lead to aggression and violence in situations in which smaller amounts would not. The extremely heavy intake of alcohol by homicide offenders (mean before crime =9.3 ounces or about 18 drinks) demonstrates support for this concept. The idea that the intensity and sign of the valence of the relationship between specific substances and aggression may change with dosage level is well known (see Leavitt, 1982:451).

These findings and their interpretation should be viewed with some caution, as alternative interpretations are possible. These

TABLE 5

ALCOHOL USE PRIOR TO THE HOMICIDE BY TYPICAL DRINKING STYLE (IN PERCENT)

	Typical Daily Drinking in Year Before the Crime				
Alcohol Used Prior to the Crime	*Abstainer*	*Light-Moderate (2 drinks or less/day)*	*Heavier (2–5 drinks/day)*	*Much Heavier (>5 drinks/day)*	*Total*
None	33*	41	11	15	51
	(100)**	(62)	(34)	(24)	
1–2 Drinks	0	62	22	16	7
	(0)	(12)	(8)	(3)	
2–5 Drinks	0	48	28	24	6
	(0)	(8)	(10)	(4)	
More than 5 drinks	0	17	22	61	37
	(0)	(18)	(48)	(69)	
Total	(17)	(34)	(17)	(33)	

*Row percentages above column percentages.
**Column percentages in parens.
Note: N = 1,828 Tau-c = .45 t = 32.4 Significance <.0005

findings are informative with respect to the drinking and propensity toward very heavy drinking of homicide offenders, but little is known about the number of murders committed by heavier drinkers. Drinking may also be used as an excuse for violent or reprehensible acts (McCaghy, 1968; MacAndrew and Edgerton, 1969:83–99). Since the offenders' drinking patterns in the year prior to arrest were based on mean values, the drinking immediately prior to the homicide may not have been as substantially greater than the norm as it appears. However, the consistency of very heavy drinking, for those who drank, between the various groups examined argues for a direct influence of alcohol in a substantial proportion of the murders.

What is needed are more studies of alcohol-aggression relationships at high doses of consumption that measure a variety of physiological and psychological variables, including expectancies and communication abilities among subjects representing the continuum of drinking styles. However, the ethics of carrying out studies at high levels of alcohol consumption are such that the practicality of performing this research is rather low. Some techniques, such as ethnographic observations of drinking environments, may help to disentangle some of the variables at play in high-alcohol-consumption/aggressive episodes.

CONCLUSIONS

The conclusions of this analysis of drug and alcohol use by homicide offenders support several of the hypotheses concerning the relationship of substance use to interpersonal aggression.

1. The main conclusion is that alcohol consumption—particularly in very large amounts—was directly implicated in about half of all homicides in the sample. Evidence for this conclusion includes the fact that committing homicide was associated with a heavier than usual bout of drinking and the consistency—across sex and age groups—of the large amount of alcohol (about 18 drinks) consumed contiguous to the murder. However, the exact mechanism by which alcohol produces the interpersonal aggression that results in murder is not known and requires more research, especially on the effects of very large doses of alcohol.

2. The great amount of alcohol used contiguous to the crime and the large percentage of drug users whose typical drinking was characterized as heavier or much heavier backs the concept of a general deviance factor.
3. Support was found for a special relationship between drugs and homicide through findings that the drug-use–homicide-offender relationship was invariant with respect to race, sex, and the type of drug used. This finding is worthy of further study to uncover the factors—Goldstein's systemic drug violence, for example—that may explain this relationship.
4. Overall, Black homicides were less related to drinking than those by other races, as shown by Blacks' less than average consumption and involvement with alcohol prior to committing homicide. This conclusion leads us to suspect that some other mechanism, such as subcultural violence (Wolfgang and Ferracuti, 1967), is a more significant factor than alcohol for Blacks.

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