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ALCOHOL AND CRIME

A Study of the Urine Alcohol Concentration Found in 882 Persons Arrested During or Immediately After the Commission of a Felony.

Lloyd M. Shupe

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One of the great needs of students of the relationship between crime and alcohol is an accurate picture of the drinking behavior of persons during the commission of crime. Such a picture to be complete would not only include those who were sober and those who had been drinking, but also to what degree those who had been drinking were under the influence of alcohol. One of the means of obtaining such information would be the survey technic in which judges, prosecutors, police officials, and criminals in penal institutions were asked their opinion. This would probably be very inaccurate since the thinking of the polled individuals would be clouded by certain particular cases which stood out in their minds. The only accurate method would be a survey of a number of individuals while they were in the act of committing a crime and an analysis of their blood or urine for the percent of alcohol present at that time. Such a program has been going on in the Columbus Police Department since 1945. This study presents a report of the urine alcohol concentration of 882 persons picked up during or immediately after the commission of a felony during the last two years. (March 1951 to March 1953.)

Table 1 shows the number of persons arrested in each crime classification and the percent of those arrested in each crime class whose urine contained the following concentrations of alcohol: nil, .09%, .10 to .19%, .20 to .29%, .30 to .39%, and .40% or over. The percent of those having .10% urine alcohol or more was also calculated because .10% and over may be associated with the release of inhibitions.

The analyses herein reported were made on urine specimens which were analyzed by simple distillation, an aliquot of the distillate being oxidized with standard potassium dichromate in sulfuric acid, the transmittance of the resulting colored solution measured in a photronic filter photometer, and the ethanol concentration determined from a previously calibrated graph.¹

1. Dubowski, K. M., and Shupe, L. M., Improved semimicro distillation apparatus. *Am. J. Clin. Path.*, 22: 147-149, 1952. Shupe, L. M., and Dubowski, K. M., Ethyl alcohol in blood and urine. *Am. J. Clin. Path.*, 22: 901-910, 1952.

TABLE 1

PERCENT OF PERSONS ARRESTED IN EACH CRIME CLASS SHOWING VARIOUS PERCENTAGES OF URINE ALCOHOL

	Cases studied	ALCOHOL CONCENTRATION						
		nil	.00-.09%	.10-.19%	.20-.29%	.30-.39%	.40 plus	.10% plus
Rape	42	50%	5%	19%	21%	5%	0%	45%
Felonious Assault ..	64	52%	5%	9%	20%	13%	2%	43%
Cutting	40	8%	5%	20%	35%	25%	8%	88%
Concealed Weapons	48	8%	8%	21%	25%	33%	4%	83%
Other Assaults	60	8%	13%	25%	33%	18%	2%	78%
Murder	30	17%	17%	30%	23%	13%	0%	67%
Shooting	33	18%	3%	27%	33%	18%	0%	79%
Robbery	85	28%	12%	15%	29%	15%	0%	60%
Burglary	181	29%	7%	24%	24%	14%	2%	64%
Larceny	141	27%	9%	13%	27%	19%	5%	65%
Auto Theft	138	30%	11%	25%	22%	8%	4%	59%
Forgery	20	40%	0%	20%	20%	20%	0%	60%
Average total ..	882	27.3%	8.4%	20.2%	25.8%	15.6%	2.6%	

It is the opinion of the author that the following percentages of alcohol in the urine are associated with the following degrees of alcoholic influence.

I—nil—Subject is not under the influence of alcohol.

II—.05 to .25%—STAGE OF EUPHORIA—The subject's higher inhibitory control centers of the central nervous system are depressed causing a feeling of well being, lessening of anxiety, and an increased desire to obey impulses even though they be wrong.

III—.15 to .35%—STAGE OF INCOORDINATION—The subject has loss of muscular coordination and a tendency to sway on his feet due to the depression of the central nervous system controlling these faculties, is talkative and cocky particularly in the lower percentages of this stage.

IV—.30 to .50%—STAGE OF CONFUSION—Subject staggers, movements are largely incoordinated, reactions are slow, vision is affected, speech is slurred and thick, subject is mentally dull and confused, and there is a tendency to relax and go to sleep, particularly in the higher percentages.

V—.40 to .60%—STAGE OF ANESTHESIA—Subject is usually unable to walk, falls, speech is incoherent, stuporous, asleep, or unconscious.

No attempt was made in this study to differentiate between the chronic alcoholic and the impulsive drinker.

The following crime classifications are included in this study: MURDER—including first and second degree murder and manslaughter, but not including manslaughter by illegal operation of a motor vehicle. Negligent homicide cases involving motor vehicles do not enter into this survey at all. CUTTING—including cutting to kill, cutting to wound, and stabbing. SHOOTING—including shooting to kill and shooting to wound but not including ordinary discharge of firearms within the city

limits. RAPE. FELONIOUS ASSAULT—defined, in Ohio, as one who exposes himself to or handles the person of a female child under the age of 16 years. OTHER ASSAULTS—including assault to kill, assault to wound, and assault and battery. ROBBERY—including armed and unarmed robbery and assault to rob. CARRYING CONCEALED WEAPONS—including concealed guns, knives, billies, brass knuckles, etc. BURGLARY—including all types of breaking and entering of business places or homes, in day or night, to steal or commit a felony, unless one of the above felonies was committed. LARCENY—including ordinary theft, pocket picking, and larceny from cars or parking meters. AUTO THEFT. FORGERY—including not only bad checks but also forgery of charge accounts.

SUMMARY

Rape and Felonious Assault are just as much crimes of sober passion as crimes of alcoholic passion. The chances are practically 50-50 that the person committing rape or felonious assault is either sober or under the influence of alcohol. In fact, the figures show that a high percent of alcohol may depress the desire for sex practices.

The figures show that crimes of physical violence are associated with intoxicated persons. Cuttings (11 to 1 under the influence of alcohol), the carrying of concealed weapons (8 to 1 under the influence of alcohol) and other assaults (10 to 1 under the influence of alcohol) are definitely crimes of alcoholic influence, even crimes of true intoxication. Although a fewer percent of persons involved in shootings and murders are under the influence of alcohol, and a greater percentage are actually sober, than those committing similar crimes of cutting, concealed weapons, and other assaults, the chances are still better than 4 to 1 that these crimes are committed by persons under the influence of alcohol.

A study of persons picked up during or immediately after the commission of robbery, burglary, larceny, and auto theft (crimes of illegal appropriation of property) shows that, although alcohol plays a large part in the commission of these crimes (2 to 1 are under the influence of alcohol), there are just as many sober persons committing these crimes as there are in any one alcoholic category.

It is doubtful if the figures on forgery give an accurate picture of the relation of alcohol to this crime, because most forgers are not arrested at the time of their crime but several days later when the rubber checks fail to clear the bank on which they are written. The cases herein reported are only those who were caught during or immediately after a forgery, but it should be understood that they represent only a small portion of those arrested for the crime of forgery over the last two years.

Finally, the conclusions reached from the figures herein presented

as to the part alcohol plays in crime, may be extremely misleading, because we have analyses from only those persons who were caught at their crime. What about those persons who do not get caught during their crime or do not get caught at all? Criminals do not always commit crime when they are drinking. Neither do persons who drink always commit crime. This study is not presented to show that persons who drink commit crimes or even that two thirds of the criminals are drunkards. We do know that of those who were caught in the City of Columbus, Ohio, during the past two years, during or immediately after the commission of a crime, 64% were under the influence of alcohol to such an extent that their inhibitions were reduced.