

Prisoners' Experience with Alcohol

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The need for comprehensive information on the substance abuse patterns of people coming to prison has been discussed by a number of sources (for example, Krefft & Britain 1983 in the United States; Mott 1986, in the United Kingdom; Northcott et al. 1986 in Western Australia). In Western Australia a series of studies and surveys attempted to provide some indication of the extent of the problem (for example, Johnson & Egan 1985; Indermaur 1986). These short surveys contributed to the formation of a Substance Abuse Working Party set up by the (then) Western Australian Prisons Department to address the question of substance abuse problems amongst the prisoner population and to provide recommendations for future action. Although the Working Party undertook a small survey into the extent of substance abuse problems amongst prisoners it recommended that a comprehensive analysis be completed to provide a firm basis for the development of programs in the identified areas. The main objective of the present study was to measure the extent and nature of substance use and abuse amongst offenders entering Perth metropolitan prisons.

The present paper is an abridged version of a study of prisoners' alcohol and drug use patterns (Indermaur & Upton 1988). The present paper will be limited to a discussion of the results related to alcohol and variables associated with alcohol use. Some further comments concerning recent developments in Western Australia will also be made. Where the term 'drug' appears in the present paper it is used as a generic term for 'alcohol and other drugs'.

In recent times there has been considerable interest in the use of alcohol by offenders. Both McLean (1988) and White and Boyer (1985) have used a standard alcohol screening device (the Michigan Alcoholism Screening Test) to identify alcohol problems amongst prison inmates. White and Boyer (1985) classified 43 per cent of their Tasmanian sample as 'alcoholics' and McLean classified 50-60 per cent of his New Zealand sample as having substantial alcohol problems. A survey by the Western Australian Probation and Parole Service suggested that alcohol could be identified as a contributing factor to offences in 53 per cent of cases (Papandreou et al. 1985). Similar results are reported in studies from the United States. For example, Roffman and Froland (1976) estimate that between 20 per cent and 50 per cent of United States prisoners have major drug and alcohol problems, based on a review of survey data.

In Western Australia Aboriginal alcoholism is a major concern. Duckworth and colleagues (1982) surveyed Aborigines in prison in the north of Western Australia. Seventy-four per cent of the 96 prisoners studied classified themselves as being 'really drunk' at the time of the offence. A further 18 per cent said that they had been drinking but were not drunk, and only 8 per cent said that they were sober.

In a Massachusetts based study of 32 inmates, Cordilia (1985) found an association between heavy drinking immediately before a crime and type of crime committed, that is, spontaneous, low-profit crimes for financial gain. She states that while 'professional' criminals often drank heavily, it was not prior to committing a crime as this was seen by them as interfering with their ability to perform their crime.

Information on alcohol abuse patterns is important for both service delivery and planning purposes. Variables that are significant in certain locations need to be identified if strategic interventions are to be effective.

To achieve the objectives of the present study a number of measures were developed and applied to the target population (prisoners received into metropolitan institutions between June and September 1987). The key measure is a comprehensive interviewer administered questionnaire.

Methodology

The screening instrument

There is mounting evidence that, at least with self-referred substance abusers, self-report measures are not only as good as clinical measures but perhaps considerably more useful (Wallace & Haines 1985; Skinner

et al. 1984; Bernadt et al. 1982). Clinical indicators are limited in the types of drugs they can detect, and there are logistical problems related to reaching offenders within a sufficiently short time after the commission of an offence. Add to this the fact that clinical indicators could only ever provide an indication of substance use for one particular point in time and their utility in the development of a general data base becomes quite limited. However, urine testing of arrestees can be quite useful in providing an objective snapshot view of drugs recently consumed by arrestees as demonstrated recently by Wish (1987) in the United States.

The use of self-report measures in prisons has special problems, such as under-reporting, over-reporting and general concerns regarding reliability. However, a number of prison based studies have employed self-report measures (for example, Dobinson & Ward 1985; White & Boyer 1985).

The task of screening for alcohol problems in prison poses a particular challenge. The first task is to ensure that the instrument is appropriate to the target population. We found that most screening devices had been developed at outpatient clinics with self-referred, and usually middle class, clients. The prison population is markedly different; mainly male (95 per cent), lower class, unemployed, and forcibly detained.

The prison population is also distinct in terms of attitudes toward alcohol. This became apparent during the pilot testing. Many of the prisoners interviewed consumed significant amounts of alcohol but were often unconcerned with their use and did not respond to items which sought their degree of worry or reflection on their drug use. Many of the established questionnaires include items such as 'How often during the last year have you found it difficult to get the thought of alcohol out of your mind?' (World Health Organization Core Screening Instrument, Saunders & Aasland 1987). These items rely on the respondent having some internal conflict regarding their drug use, which is usually absent amongst the prisoner sample, for a number of reasons.

One complete and established screening test was to be incorporated into the screening instrument for comparative purposes. To overcome the problems referred to above, it was decided that the most useful items were those that focused on actual behaviours rather than thoughts or feelings about substance use. This guided our selection criteria. In searching the literature for tests which may be appropriate for use with a prison population the following screening tests were considered:

- The World Health Organization Epidemiological Data Gathering Device (Hughes et al. 1980);
- The Trauma Scale (Skinner & Horn 1984);
- The Short Michigan Alcoholism Screening Test (SMAST) (Pokorny et al. 1972);
- The CAGE (Ewing 1984);
- The World Health Organization Core Screening Instrument (Saunders & Aasland 1987); and
- The Canterbury Alcoholism Screening Test (CHST) (Elvy 1984).

Although the Trauma Scale (Skinner 1984) does focus on objective unambiguous information, it may not be valid with our population who are more likely to suffer fractured limbs and head injuries even before they start drinking. Mainly for comparative purposes, but also because of its apparent robustness (for example, see Bernadt et al. 1982) the brief MAST was chosen for the present study. McLean (1988) reports that his analysis of the MAST based on a survey of New Zealand prisoners indicates that the test is valid for that group and it has a sound internal structure.

It should be noted that probably the most recent similar studies to the present one, at least in regards to prisoner alcohol use, are those of White and Boyer (1985) and McLean (1988). White and Boyer administered the brief MAST to all sentenced prisoners received into Risdon prison in Tasmania in the 12 months between October 1982 and October 1983. Of the 462 prisoners tested, 43 per cent were classified by the brief MAST as having indications of alcohol dependence. From an earlier study in Western Australia (Northcott et al. 1986) we expected similar proportions amongst Western Australian prisoners. McLean found higher proportions of 'alcoholics' in his New Zealand sample of 129 male inmates and 102 female inmates. Fifty-nine per cent of the male sample and 53 per cent of the female sample were classified as 'alcoholics' according to the MAST criteria. **The Classification Schema**

A classification system is needed to guide the analysis of substance abuse patterns.

One of the main criticisms of many of the existing screening devices is that they only attempt to measure dependency. A more contemporary approach to alcohol problems (and this can be directly extended to

other drug problems) is to recognise the existence of dependence (or a dependence syndrome) in addition to other disabling aspects of substance use. Essentially this approach recognises that problems with substance abuse can occur in three dimensions:

1. Problems directly related to use or consumption. Edwards et al. (1981) and Pols and Hawks (1986) delineate hazardous use, harmful use, dysfunctional use and unsanctioned use. 'Use' can also be determined according to established standards such as light, medium and heavy (Australian Bureau of Statistics 1986);
2. Disabilities associated with use (usually injuries and crime); and
3. Problems associated with dependency (adaptation, tolerance, addiction etc.).

The recent Victorian study of a cohort of drink driving offenders indicates that the amount of alcohol consumed is one of the best predictors of future convictions and is the single most important preventable cause of future convictions (Christie et al. 1987).

The large percentage of prisoners with substance abuse related offences underlines the need for a systematic way of describing substance abuse problems and treatment interventions. It is significant that 25 per cent of all Western Australian prisoners' major offences were substance related in the year to June 1987 (Western Australian Department of Corrective Services Annual Report 1987). Of these 76 per cent were alcohol related.

The following conceptual model or classification system was formulated:

Figure 1

A Schematic Representation of Alcohol Related Disabilities

Dimensions ----->

USE	DEPENDENCY	ASSOCIATION WITH CRIME	SELF PERCEPTION OF ABUSE
Not heavy	Not dependent	No	No
Heavy	Dependent	Yes	Yes

For each of these dimensions certain items within the screening instrument can be coded and weighted to produce an overall score. Criteria were developed in accordance with established standards.

World Health Organisation standards guided the consumption measure. Dependency on alcohol is determined in accordance with scoring criteria on the SMAST. Problems in the area of 'alcohol and crime' are determined by means of direct questions about the history of problems with alcohol abuse and crime.

In addition to the six groups described above, the subjects' own perception of alcohol abuse was measured.

Procedure

The sample

The sample frame consisted of all persons 'received' as prisoners at the seven metropolitan prisons for the four months of June through September 1987.

Since the project aimed to interview all 'distant person' receivals in this period the procedure is more accurately described as a census. Table 1 lists the numbers of receivals at the nominated institutions during the target months and the proportion of these that were screened (78 per cent). Most of those not interviewed were serving such short sentences that they were released before they could be interviewed.

Table 1

Number of 'Distinct Persons' received in the Study Time Frame and Number Interviewed

INSTITUTION	TOTAL PERSONS RECEIVED	NUMBER AND PER CENT INTERVIEWED
Bandyup Women's Prison	142	86 (61%)

Barton's Mill Prison	21	16 (76%)
Canning Vale Prison	79	52 (66%)
Canning Vale Remand Centre	376	288 (77%)
Fremantle Prisons	320	236 (74%)
Karnet Prison Farm	15	6 (40%)
Wooroloo Prison Farm	249	233 (94%)
Unknown	-	9
TOTAL	1202	926 (77%)

Table 2 provides a profile of the sample population. The profile generally matches the overall population of 'distinct person receivals' as reflected by figures available from the most recent Annual Report of the WA Department of Corrective Services (1986-87).

Application of the measurement instruments

The collection of raw data may be described by way of the separate stages at which measurement instruments were applied:

Initial administration of the screening instrument

New receivals were identified and an attempt made to interview each of them. Five interviewers conducted the initial interviews on the prison sample. Four of the interviewers (two men, two women) were professional persons, trained in the social sciences, working for the Department of Corrective Services, and one was a trained interviewer from the Australian Bureau of Statistics. Each interviewer was individually trained to use the screening instrument in an interview setting, by the Project Co-ordinator and Research Officer.

The interviewer would begin by introducing himself, stating that the following series of questions were for a research project and assuring the subject that all answers were confidential and would not affect their charge or sentence. The interviewer then asked the subject questions from the screening instrument, recording the subject's answers directly on the questionnaire. Large 'prompt' cards were used for some of the questions presenting multiple choice answers. Each interview took between 5-15 minutes, an average being 9 minutes.

Tests of association (Chi-square) were conducted to test for the effect of interviewer, interviewer gender, and interviewer type on the main dimensions under study. No significant effects were found and therefore it is assumed that there were no attributes of the interviewer that had a large or significant impact on questionnaire results. This finding supports the assertion that the screening instrument is robust and can be used by a range of personnel.

Table 2

Demographic Characteristics of the Sample Compared to the Population of Distinct Persons Received into Metropolitan Prisons in the Year 1986-87

 	SAMPLE	RECEIVALS (1986-87)
NUMBER	926 (100%)	2735 (100%)
MEDIAN AGE	24	24
ETHNICITY (where recorded = 91% of cases)		
Aboriginal	191 (22.7%)	602 (22.8%)
Non-Aboriginal	649 (77.3%)	2133 (77.2%)
RECIDIVISM		
First imprisonment	368 (39.7%)	1699 (37.1%)*
OFFENCE TYPE		
Against the person	18.7%	(12.9%)*

Against property	36.9%	(22.6%)
Against justice	5.5%	(11.0%)
Against good order	4.6%	(4.5%)
Alcohol related	7.0%	(19.3%)
Cannabis related	5.9%	(5.0%)
Heroin related	1.7%	(0.6%)
Other drugs related	0.0%	(0.4%)
Driving/traffic	19.7%	(21.9%)
Miscellaneous	 	(2.4%)
PRISON		
Fremantle	26%	25%
Remand Centre	31%	24%
Canning Vale	6%	12%
Woorloo	25%	25%
Bandyup (women)	9%	10%
Karnet	7%	2%
Barton's Mill	2%	2%

*These figures are based on the percentage of total receivals rather than 'distinct person receivals' for which information was not available. For offence type, the calculation is made on the basis of the major offence of each person received.

Medical assessment

Staff from the medical branch in each prison provided information on prisoners' substance abuse. In two prisons, the medical officer completed forms for each prisoner following the routine examination conducted for each receival. In the remaining five prisons, nursing staff, with the consent of the medical officer in charge, completed the forms from information contained on the medical files based on the examination.

Prisoner file examination

Files held by the Department of Corrective Services for prisoners with previous offences were examined by a records clerk. Specific types of documents were examined for information which could indicate a potential substance abuse problem. Drug and alcohol related offences were noted for those prisoners with a previous record. This information was gauged from Warrant Histories (obtained from the Police Department) and court records.

Professional case assessment

Clinical psychologists and social workers employed by the Western Australia Department of Corrective Services assessed a randomly selected list of prisoners from the sample for signs of substance abuse. At the conclusion, a pro-forma was completed, designed to summarise whether the interviewer had found indications of a substance abuse problem and on which dimensions the problem was indicated.

At least three separate measures were collated for each prisoner in the sample: the initial interview, medical screen and prisoner file analysis. Table 3 lists the numbers of each record type gathered.

Table 3

Numbers for Each Record Type

RECORD TYPE	NUMBER	PROPORTION OF TOTAL SAMPLE
Initial Screen	926	100%
Medical Screen	926	100%
Prisoner File Screen	926	100%
Professional Case Assessment	79	8%

Results

Patterns of use

ALCOHOL USE. National Health and Medical Research Council (NHMRC) sources (Pols & Hawks 1986) recommend that consumption of 28 to 42 'units' or standard drinks per week be considered 'hazardous' (equivalent to approximately 40 grams of absolute alcohol per day). Consumption of more than 42 units (standard drinks) per week is classified as 'harmful'. This criteria generally agrees with the standards used by Wallace and Haines (1985) and Bungey and Winter (1986). These figures are determined for men. The criteria for females is different as a result of metabolic differences between the sexes. For females consumption of 14 - 28 units per week is considered hazardous and more than 28 units per week is considered harmful. These figures also agree with a study by Wallace et al. (1985) which showed that although there was considerable lack of consensus on the questions of safe limits of alcohol consumption among a sample of alcohol experts, the mean suggested level for men was approximately 24.0 units per week and 16 units per week for women. Wallace et al. (1985) also report that the British Health Education Council recommended weekly consumption below 21 units for men and below 14 units for women.

According to the NHMRC criteria, based on the 'consumption' questions of the interviewer administered questionnaire it is estimated that 30 per cent of the men and 36 per cent of women in the sample consume hazardous amounts of alcohol with 27 per cent of men and 16.3 per cent of women in the sample in the 'harmful' category.

How do these figures compare with the general community? The Australian Bureau of Statistics (ABS) conducted a survey of alcohol use patterns in Perth in October 1985. The way the ABS classified alcohol use was different to the criteria used above. Alcohol use was defined as 'heavy' if the average consumption exceeded 49 units per week. This is well above the criteria for harmful use referred to above (42 units). Drinking was classified as medium if it was between 24.5 and 49 units per week. By this classification most drinkers classified as 'medium' by the ABS are consuming hazardous levels according to the NHMRC recommendations. This disparity is not unusual. The NHMRC figures are considered more useful in terms of reflecting health problems. However, the ABS figures will be used for comparative purposes.

Figure 2 shows the proportion of the sample classified according to their reported consumption of alcohol. The breakdown in prison sample is compared with the Australian Bureau of Statistics figures (October 1985). The ABS survey figures relate to consumption by the respondent in the week immediately preceding the interview. Therefore, the figures in the two types of groups result from slightly different questions and should simply be considered as an indication of the likely differences between the two groups.

Figure 3 also shows that while the majority of both the general community and the prison population are categorised as light drinkers, there are significantly greater numbers of medium and heavy drinkers in the prison sample. Very few prisoners appear to be non-drinkers, based on self-report results.

Christie et al. (1987) has recently published work on the alcohol consumption patterns of offenders convicted of drink driving offences in Victoria. Alcohol consumption patterns reported by the 426 male drink drivers were somewhat similar to the patterns of prisoners in the present study (8 per cent reported no use, 72 per cent light use, 15 per cent medium use and 5 per cent heavy use).

Using a criteria for excessive alcohol consumption of 42 units per week for men and 21 units per week for women, Wallace and Haines (1985) found that 11 per cent of men and 5 per cent of women in the sample from the British general community indicated excessive alcohol consumption on the basis of a self-report questionnaire.

Closer to home, Bungey and Winter (1986) conducted a study of the drinking patterns of South Australian adults in 1983. Bungey and Winter used the ABS category of 'heavy drinker' (that is, greater than 75 mL per day on average for men) although they relabelled it as 'high risk group' for men (women classified as high risk were those classified as heavy or medium drinkers under the ABS system). Bungey and Winter's results are quite similar to those reported for the ABS survey in Perth in 1985. For females, 95 per cent of women were classified as non-drinkers or light drinkers, 2 per cent as heavy drinkers and 3 per cent as medium drinkers. For males, 84 per cent were classified as non-drinkers or light drinkers, 10 per cent as medium drinkers and 6 per cent as heavy drinkers.

One of the interesting trends that appear from comparing the ABS surveys is the increasing medium and

heavy alcohol use amongst women and a decreasing medium and heavy use amongst men. McLean (1988) cites his research as 'confirming recent concerns about the high and growing incidence of alcoholism among some New Zealand female groups'. Comprehensive and large national and state surveys of alcohol use are necessary to monitor important demographic changes in the use and abuse of this popular drug. The increasing number of females in the high risk groups is of particular concern and likely to have significant social consequences. Further, it should be remembered that the ABS categories underestimate the women in the high risk groups because they use the same scale for males and females, and as mentioned earlier, the criteria used are higher than those used by most medically based researchers.

Alcohol dependency. The instrument used to measure dependency to alcohol was the Short Michigan Alcoholism Screening Test. This is one of the most common measures used for this purpose and was mainly chosen to allow comparisons with other populations. Forty-eight point five per cent of the sample were classified as alcohol dependent by this measure. This figure compares with 43.5 per cent reported by White and Boyer (1985) for a sample of 440 sentenced prisoners in Tasmania's Risdon prison.

One of the main criticisms of the SMAST is that it detects both past and present dependence on alcohol. Many of the questions start with 'Have you ever....?' In other words, a reformed alcoholic would also be classified as 'dependent'. To overcome this problem we coupled the consumption measure with the SMAST to count prisoners reporting hazardous levels of consumption and also classified as dependent on the SMAST. Twenty point three per cent of males and 29.8 per cent of females were thus classified as current alcohol dependents.

Alcohol and crime. One of the main disabilities associated with alcohol is crime. This disability is usually, but not always, associated with heavy alcohol use and dependence on alcohol. If the prisoners reported consuming more than 10 drinks before committing their last offence or reported having one or more drink driving charges we classified them as having an alcohol-crime disability. Sixty-five point two per cent of the sample were indicated. Fifty-four point six per cent reported one or more drink driving charges. This compares with a figure of 58.2 per cent found by White and Boyer (1985) in Tasmania.

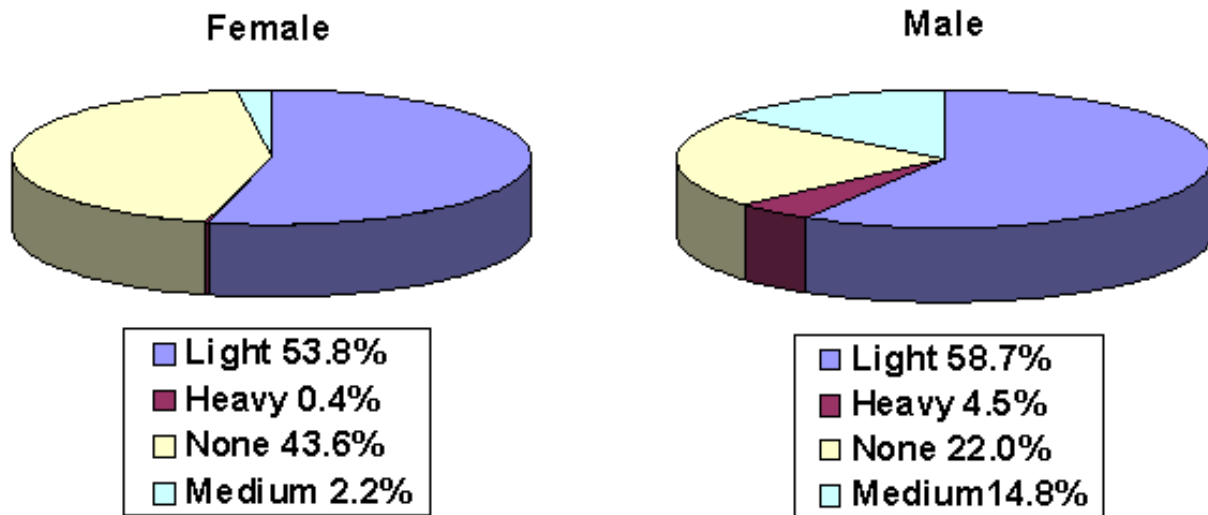
Twenty-three point two per cent reported 3 or more convictions (White and Boyer found 35.3 per cent of their sample had 3 or more drink driving convictions). It should be remembered that White and Boyer were specifically studying sentenced prisoners. The present study considered all prisoners coming into metropolitan prisons.

About half (52 per cent) of the sample reported that they had been drinking immediately prior to their last offence. Thirty-eight per cent of the sample reported drinking 10 or more drinks before committing the offence for which they were in prison. Such results are reminiscent of the Australian Senate Standing Committee Report of 1977 which estimated that 73 per cent of men who committed violent crime had been drinking prior to the commission of the crime (however, that Report does not provide detail on the extent that the men had been drinking).

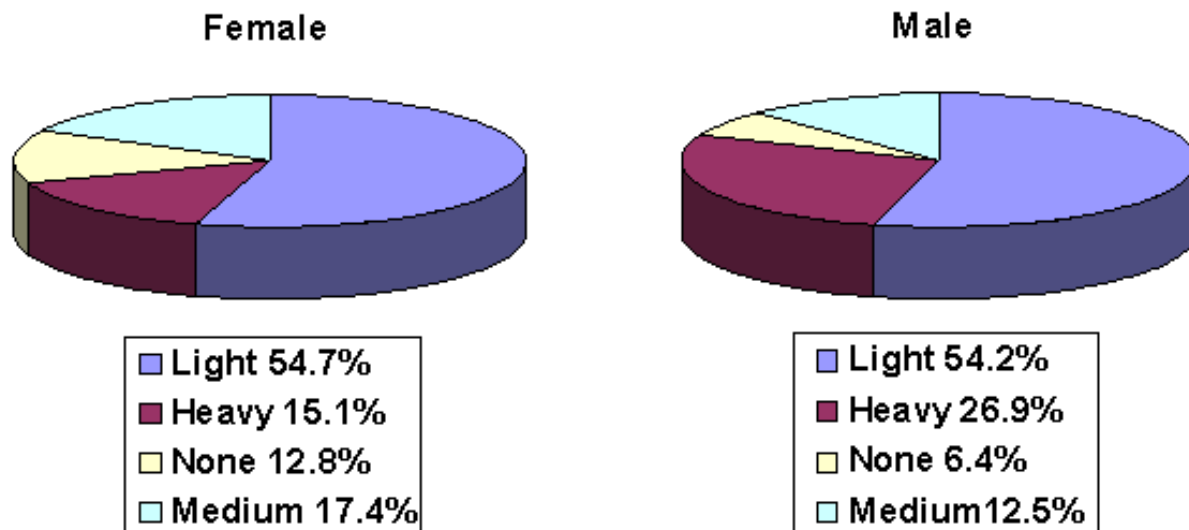
Figure 2

Consumption Level by Sex Compared with Australian Bureau of Statistics Survey of Perth Community in 1985

1. ABS Perth Survey, 1985



2. Prison Survey, 1987



Perception of alcohol problems. One aspect, not often studied, is the prisoner's own perception of their alcohol problem. We asked the following two questions: 'Do you think alcohol had anything to do with you being in prison this time?' Forty-seven point eight per cent of the sample answered 'yes'. Secondly, 'Do you have any concerns about your use of alcohol?' Only 26.8 per cent of prisoners answered in the affirmative - perhaps it is alright to blame alcohol for imprisonment, but not to be 'concerned' about it. It further emphasises the greater utility of questions that focus on concrete behaviours (for example, linking actions to prison) rather than more subjective questions.

Overall, 52.4 per cent were either 'concerned' or thought alcohol had something to do with their imprisonment. One of the crucial questions here is 'How many of those classified as having alcohol problems are concerned about their use of alcohol?'. Table 4 lists the proportion of prisoners in the alcohol problem categories who are classified as 'concerned' about their alcohol use. This table should be of considerable interest to those planning programs that rely on prisoners volunteering or seeking help on their own behalf.

Table 4

Prisoners with Various Alcohol Problems who are Concerned About their Use of Alcohol

ALCOHOL PROBLEM GROUP	PROPORTION OF GROUP CONCERNED ABOUT THEIR USE OF ALCOHOL
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Hazardous consumption	50%
Hazardous consumption and dependent	66%
One or two drink driving charges	28%
Three or more drink driving charges	43%
Alcohol/crime association	37%

Important variations in abuse patterns

Alcohol use. Age did not appear to be a significant factor relating to alcohol abuse. However, race accounted for the largest discrepancy between groups. Forty-two point four per cent of Aboriginal prisoners are in the 'hazardous' category, compared to only 25 per cent of the non-Aboriginals.

There were noticeable variations in the proportion of alcohol abusers between prisons. Wooroloo had the largest proportion of heavy drinkers (34.3 per cent). As a minimum security prison it contains a greater percentage of prisoners on relatively minor charges, such as those that are alcohol related, and also has a larger percentage of Aboriginals.

Hazardous use is also more common amongst those who have been to prison before. Thirty-three point eight per cent of recidivists were classified as hazardous users compared with 20.8 per cent of those imprisoned in Western Australia for the first time. This would seem to suggest a relationship between offending and the hazardous use of alcohol. In fact, most of the 'hazardous users' were also classified as having an alcohol-crime problem (86.7 per cent of all hazardous users). The reverse was not true, however, as only 38 per cent of those within the alcohol-crime group were rated hazardous alcohol users. This finding can be expected since the alcohol/crime group is large (65 per cent of the sample) and the hazardous user group is about half the size. In total, 24.8 per cent of the prisoner sample fell within both the hazardous user and alcohol-crime groups.

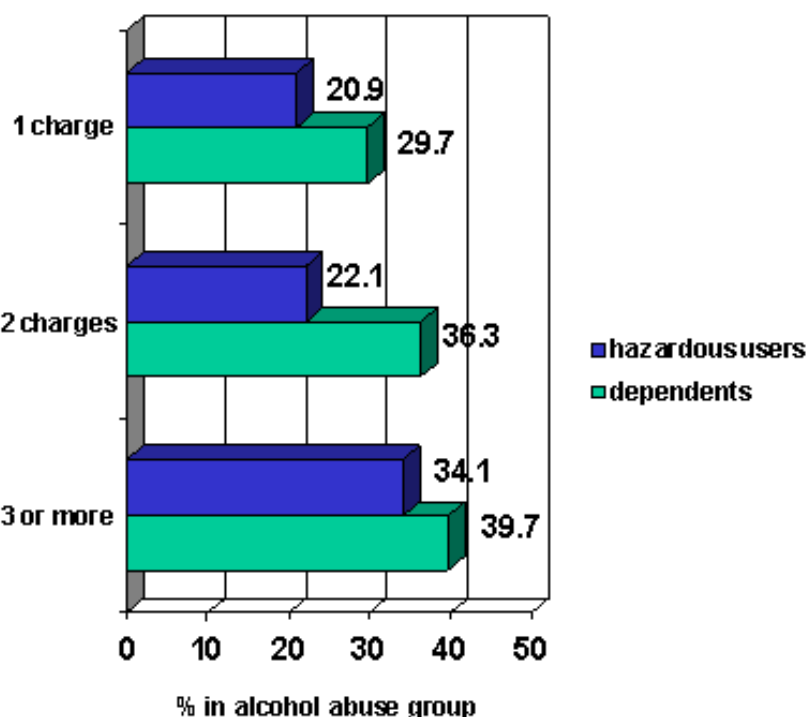
Alcohol dependency. The analysis of variation in alcohol dependency was restricted to alcohol dependents reporting current hazardous consumption levels. As with alcohol consumption the biggest variation occurred with race. Aboriginals were almost twice as likely to be classified as current dependents - 30 per cent compared to 17 per cent for non-Aboriginals.

The proportion of current dependents was 2.5 times higher for those that had been to prison before (25 per cent for recidivists compared to 11 per cent for first timers).

The type of offence the prisoner entered prison for was an important source of variation. The main offence was available for only 83 per cent of the sample. Of these, the proportion classified as current dependent was 21 per cent. Examining offence types, offences against the person recorded 28 per cent as current dependents, offences against justice 31 per cent and alcohol related offences 26 per cent. For those prisoners with one or more drink driving offences the proportion of hazardous users and dependents increased as shown in Figure 3.

Figure 3

Drink Driving Charges and Current Alcohol Dependents



Alcohol and crime. Prisoners were classified as demonstrating an alcohol/crime association if they reported having one or more drink driving charges or that they had consumed more than 10 drinks prior to their last offence. In our analysis we only considered those that reported hazardous levels of consumption. According to this criteria 25 per cent of the sample were classified in this category.

Fifty-two per cent of the sample reported drinking when they committed the offence they were imprisoned for, most of whom had 10 or more drinks. Such results are supportive of arguments proposing that alcohol is associated with 'spontaneous and unplanned' crimes.

Miller et al. (1986) using data from a U.S. Bureau of Justice Statistics survey of incarcerated offenders, state that usual alcohol consumption patterns are pertinent to alcohol consumption immediately before the offence. They found that heavy alcohol users tend to drink alcohol before an offence. We found that 86.7 per cent of the hazardous alcohol user group also demonstrated an association between alcohol and crime (24.8 per cent of the total sample were classified as both hazardous users and within the alcohol-crime groups). Table 5 shows a breakdown of the offence types (where available) committed by those who stated drinking 10 or more drinks prior to the offence (33.6 per cent of the total sample) for which they were imprisoned.

Table 5

Types of Offence Committed by Prisoners Drinking 10 or More Drinks

 	DRINKING AT TIME OF OFFENCE	
	10+ Drinks	At least 1 drink
Against the person	82	108
Against property	100	129
Against justice	17	22
Alcohol related	39	48
Drug related	(cannabis only) 10	(cannabis, 1 heroin) 15
Against good order	7	10
Driving related	56	82
TOTAL	311	414

Miller et al. (1986) find, as does the present study, that alcohol constitutes the most common drug regularly

consumed by prisoners. Property and person related offences were most frequently committed by heavy alcohol users.

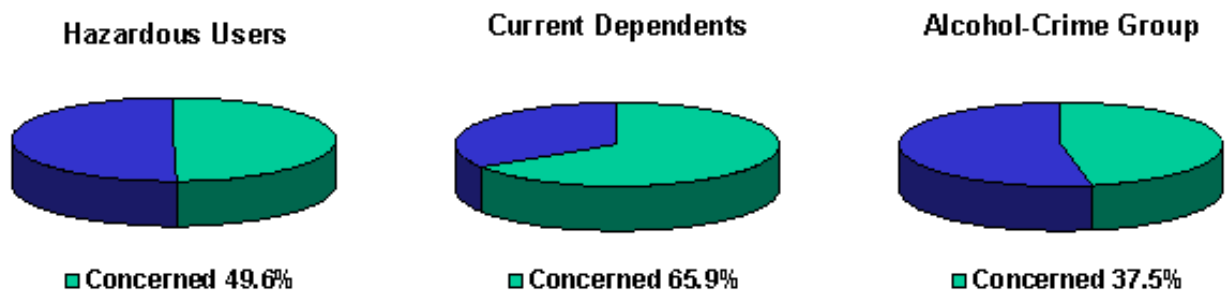
A high percentage of the hazardous user group (31.8 per cent) were rated by the prisoner file data as having an alcohol-crime problem. This means that about one-third of the hazardous alcohol consumers have a history of alcohol problems that is evident from their prisoner files.

Again the biggest variations related to race and previous imprisonment. Aboriginals and those who had been to prison before, were twice as likely to fall into the alcohol/crime group than non-Aboriginals and 'first timers' respectively.

Perception of alcohol problems. For this discussion we sought the proportion of prisoners expressing concern about their alcohol use from within the groups reporting hazardous levels of consumption and current dependents or those who were classified in the alcohol and crime group. Figure 4 lists the proportion of prisoners in these groups who also expressed concern about their alcohol use.

Figure 4

Percentage of Prisoners in Abuse Categories Expressing Concern about their Alcohol Use



The validity of the initial screening measure

One of the important questions for research in this area is 'How valid or meaningful are the measures used?' How well does the measure match other indications of substance abuse? In this area different sources often give vastly different indications of the extent of the problem. This is particularly the case for drugs, which because of their illegal nature, tend to result in much speculation and little reliable data.

The present study incorporated a number of measures which provided an estimation of convergent validity (the degree to which different measures give the same result). Four separate types of assessment were taken in addition to the initial screen (see Table 3). The same dimensions were applied to each data source in order to compare measurement scales. The categorisation made on the basis of the initial screen was then matched against the categorisation achieved on the basis of the other assessment measures. Table 6 summarises these results.

The first question to be addressed is 'How good are the validation measures?' It was found that the classification based on the medical screening generally tended to result in very few (3.1 per cent) prisoners being classified as alcohol dependent. This was partly because this classification procedure relied on the existence of symptoms of alcohol withdrawal, which are not often observed. Placed against the initial screening measure the results of the medical screening classification were used to assess the ability of the initial screen to, in fact, 'correctly' detect those few that were classified as alcohol dependent by the medical screen.

The prisoner file measure is really only useful for those prisoners who had been to prison before (because only for these prisoners are there likely to be documents that comment on substance abuse). This measure was considered for the sub-sample of prisoners who had been to prison before. As with the medical screening measure, the essential statistic is the number of prisoners classified as abusers on the prisoner file who were classified in the same way by the initial screening measure.

One of the key checks in the validation process is to subject the validation measures to the same tests as applied to the measure being tested. In the present case the expectation is that there should be considerable overlap between the prisoners classified as abusers on the medical screen and those classified as abusers on

the prisoner file. However, the degree of agreement between classifications based on these measures was generally quite small. In order to overcome some of the problems with the validation measures themselves we decided on a pragmatic option, the use of the professional case assessment.

The professional case assessment is probably the best measure to test the classification system for a number of reasons. Firstly, the raw data for this measure is already formatted by professional case workers according to the four point classification system. Secondly, this test is quite realistic. It essentially measures the efficiency with which the screening measure can classify in the same manner as professional case workers. These results are presented in Table 6.

The professional case assessment has the advantage of face validity. This assessment is the alternative to questionnaire based screening. It is the most thorough and complete indication available regarding the existence of forms of substance abuse in the subject.

Table 6

Specificity* Measures for Classification Groups

CLASSIFICATION	MEDICAL SCREEN (N=926)	PRISONER FILE (N=560)	PROF. CASE ASSESSMENT (N=80)
alcohol use	**	61.4	66.7
alcohol dependency	71.4	60.7	75.0
alcohol/crime	77.8	97.5	76.3
alcohol-perception	**	**	75.0

* 'Specificity' here is the proportion of prisoners classified as abusers on criteria measures classified likewise on the initial screening measure.

** No corresponding classification for this screen type.

A brief screening instrument

The results of the present study suggest the probable value in the application of a short screening instrument for the detection of individuals with alcohol problems. This brief screening instrument would be useful if applied soon after a prisoner is received into prison. On the basis of the results of this screening test, referrals could be made to appropriate professionals.

A good deal of research points to the importance of consumption as the major factor to be determined in screening individuals for alcohol problem. The important work recently published by Christie et al. (1987) on predictors of recidivism of Victorian drinking drivers found that only three factors were related to re-conviction (heavy drinking, low social class, and a family history of 'problems with drinking'). Notable by its absence was any predictive value of the MAST measure of alcohol dependency. As Christie et al. (1987) point out, consumption was the only predictor variable that is amendable to change at the individual level. It should be noted, however, that McLean (1988) suggests that the MAST has an important role to play in screening prisoners for alcoholism counselling. In his New Zealand study, McLean provides evidence to support the value of the MAST in detecting alcohol abuse amongst prison inmates.

The results of the present study were examined for dimensionality by means of correspondence analysis (Greenacre 1984). Questions associated with clustering, and therefore important as indicator variables for the presence of alcohol problems, are those associated with 'help' and 'success' (Have you ever gone for help? Was treatment successful?). These two questions were good indicators of those prisoners with a large number of problems. The Chi-square components of the total Chi-square of 18,116 due to the first two eigenvectors were 3977 and 2018, denoting a high percentage explained (33 per cent).

The results of the correspondence analysis suggest that any brief screening instrument for alcohol problems should include a question on past attempts to get treatment for alcohol problems as these are good indicators of the presence of actual problems as indicated by the more extensive self-report.

Discussion

Screening

The routine administration of a brief screening measure similar to that used in the present study on offenders entering prison would enable the detection of most individuals who have a substantial alcohol problems. The results of the study suggest that one or two simple questions on consumption levels of alcohol and past attempts to get treatment are useful in selecting those who should be followed up. Further, certain categories of offenders such as drunk drivers should be more intensively assessed or routinely exposed to a systematic program. In general terms, the proportion of problem drinkers is so great that mass programs could be justified.

Given the prevalence of alcohol related problems there is an argument for the section of the screening instrument on alcohol to be routinely applied to incoming prisoners. This would take approximately 5 minutes in most cases and could be seen as an adjunct to other treatment interventions.

A second distinct advantage is that it is expected (based on the experience of this study) that the simple administration of the measure will result in heightening the awareness of at least some individuals to their alcohol consumption. The administration of the measure, therefore, can act not only as a detection procedure but also as an actual intervention.

A third advantage is that the screening will allow the maintenance of the data base and a means to evaluate other interventions and events in the criminal justice system.

Targeting groups for intervention

As a result of the project certain distinct groups emerge as targets for intervention. The five main groups are:

Aboriginal alcohol abusers. The over-representation of Aboriginals in all the alcohol abuse categories stands out. Specific programs that are culturally appropriate need to be developed or supported and expanded to meet this need. The recent development of an alcohol education program specifically tailored for Aboriginals in the Western Australia Department of Corrective Services is a welcome and timely initiative in this area.

Alcohol abusers not concerned with their alcohol use. Perhaps one of the most important groups to consider is that including individuals who are classified as having an alcohol problem about which they do not express a concern. Without some basic awareness or concern there is little chance that these individuals will do something about their alcohol abuse. Therefore, these individuals perhaps present the greatest risk to the community and their families since they are unlikely to be open to suggestions to reduce their alcohol consumption. This group should be the target of a campaign aimed at alerting them to the possible dangers associated with heavy alcohol consumption.

In the present survey, heavy alcohol use was found to be over-represented amongst particular offences such as crimes against the person, against property and against justice. Although a large proportion of the sample were classified into the alcohol/crime group this group also expressed less concern about their alcohol use than those classified into the other alcohol abuse groups (37 per cent of the alcohol-crime group were concerned, compared with 50 per cent of the hazardous users, and 66 per cent of the current dependents).

Prisoners classified as having alcohol problems are less disposed to express concerns about their alcohol use compared to prisoners with illicit drug problems. Explanations for such findings are most likely related to the heavily entrenched role of alcohol amidst Australian culture. Programs for prisoners would need to place more emphasis on awareness issues concerning alcohol use than for drug use.

Drunk drivers. The large number of prisoners with one or more drink driving charges suggests this problem needs special attention. It is recommended that prisoners sentenced for drink driving charges attend a day long course modelled along the lines of the Western Australia Department of Corrective Services (Community Based Corrections) Alcohol Education Program.

The recent study by Christie et al. (1987) found that a third of a cohort of drink drivers committed further alcohol related offences within nine years. Christie et al. (1987) point out (citing Vingilis 1983) that a conviction for drink driving may be one of the most useful and objective indicators of alcohol related problems. However, this must be considered against the background of other Australian studies (cited by Christie et al. 1987) which suggest that up to 30 per cent of young adult men report driving occasionally with a blood alcohol concentration above the legal limit.

Women alcohol abusers. Although women did not appear to consume the same amount of alcohol as men in absolute terms, the physiological differences between the sexes is such that in real terms a greater proportion of women prisoners consume hazardous quantities of alcohol. It is of particular concern that figures available from other studies in Australia (for example, Bungey & Winter 1986) suggest that excessive alcohol consumption by women is on the increase. Further study on this trend should be conducted to monitor its development. More importantly social policy needs to be implemented to address this growing problem.

Intervention strategies

The results of the present study suggest that whereas sizeable proportions of people entering prison seem to have disabilities associated with alcohol use, only a relatively small proportion of these express concern about their alcohol use. The results of the present study support assertions by McLean (1988) that a substantial rehabilitative effort in the criminal justice system in relation to alcohol abuse is justified.

The first priority should be to service those seeking treatment or assistance with a substance abuse problem. Therefore, increasing the availability of accessibility to programs is supported. However, as mentioned previously, probably not enough is being done to raise the awareness of those who are unconcerned with their problem. The fact that these individuals have come to prison suggests that their behaviour is affecting others in the community. It is not suggested that coercive treatment be introduced, rather that prisoners be exposed to material that will encourage reflection on the risks of substance abuse.

It is recommended that treatment interventions in Corrective Services include both those who express concern and those who may have problems but do not express concern. Further, treatment interventions need to be approximately geared to the main target groups to effect the maximum efficiency.

One advantage of the full screening procedure is that the series of questions posed requires the offender to focus on their substance (ab)use and consider it from a number of perspectives. It was observed that many interviewees became increasingly aware through their interviews that they had a number of alcohol related problems. In this respect the actual administration of the screening instrument can be viewed as an active form of intervention which increases the offenders awareness of problems associated with substance (ab)use.

The administration of the screening instrument may be even more effective than lecturing to offenders, as it puts the offender in an active rather than a passive role. Obviously the relative effectiveness of forms of intervention needs to be determined by means of carefully controlled research. However, Christie et al. (1987) point out that as 'consumption' was the only predictor of recidivism that was amenable to change, programs related to the reduction of alcohol consumption that are targeted at drink drivers are likely to be more appropriate than are goals that are aimed specifically at modification of the drink driving nexus.

On a more general level given the prevalence of alcohol use amongst offenders, state-wide or national strategies need to be developed which address the section of the population to which offenders generally belong. For example, given that a large part of the offender population is from the lower socio-economic group, cost or price of alcohol is a significant factor. In this regard encouraging the consumption of low alcohol beer through differential pricing is meaningful. The age distribution of the present study supports other results that indicate that drinking is a popular youth activity. This has implications for the marketing of alcohol and attempts to prevent alcohol abuse. Cavanagh and Clairmonte (1985) point out that:

While women's importance as a consuming segment is unparalleled in size, the youth market assumes paramount importance for yet another reason. Because of legal proscriptions against alcohol sales to adolescents in most DME's (Developed Market Economies) alcohol advertising TNC's (Trans National Corporations) can hone in on the entry level age group to recruit consumers at a formative age. To make further deep forays into this segment, TNC's often strive to reshape certain existing brands so as to enhance their youth appeal. By recourse to commercials depicting the attractiveness of dangerous and exciting occupations . . . has moved in on this market.

Further research

A feasible hypothesis, particularly regarding alcohol abuse and crime, is that these two events are both attributes of particular communities or groups. For example, it is likely that both alcohol abuse and crime

are common attributes of the lifestyle of many young males in Australia. However, it is quite a different thing to assume that alcohol abuse leads to crime. The present study found that almost 50 per cent of offenders admitted having 10 or more drinks prior to the commission of the offence they were in prison for. It could be that this was a common and perhaps even normal level of intoxication for the individuals involved (in fact, earlier questions related to consumption would support this). Therefore, the assumption that the consumption of alcohol had a primary part to play in the commission of the offence is open to question given that any sample of the offender's behaviour would reveal heavy use of alcohol. An important question concerns what else was happening during this period of intoxication that may have encouraged the commission of the offence.

It seems to be clear that the level of alcohol abuse in the Australian community is problematic. More work needs to be done to ascertain what communities and governments can, or are willing to, do about alcohol abuse. It is important to understand why the courses of action that have been recommended by various expert bodies (such as the strict enforcement of the legal drinking age and a ban on the advertising of alcohol and pricing of alcohol according to alcohol content) are not adopted despite adequate and continuing evidence of the damage associated with alcohol abuse in various Australian communities.

It was particularly disturbing to note towards the end of last year (1988) that the Western Australian Government introduced legislation to extend the opening hours of hotels. This legislation caused considerable concern amongst the alcohol-research community in Perth, as the availability of alcohol is one of the few factors which has been consistently and clearly linked with alcohol related problems. The fact that the Western Australian Government's own Alcohol and Drug Authority has been the source of much of this research establishing the link between availability and abuse confirms the belief of many in the research community and elsewhere, of the cynical and capricious attitude of the Government towards preventing alcohol related problems.

Regarding the problems referred to above, it is likely that the more relevant analyses are sociological (for example, Sargent 1979) and political. Perhaps the most useful way to close this discussion is with the opening quote from Cavanagh and Clairmonte's (1985) important work *Alcoholic Beverages: Dimensions of Corporate Power*:

To speak and write of alcohol problems without reference to the burgeoning transnational corporations that produce and market alcoholic beverages is akin to a discourse on Hamlet without reference to the Prince. Yet, this is precisely what certain institutions and individuals have done for decades and continue to do to this day.

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