

**Title**

Drink and Drug Driving among University Students: What's the Skipper up to?

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**Abstract/Summary**

**Research Objectives:** Since the introduction of random breath testing (RBT) in Australia there has been a significant reduction in drink driving, as measured by alcohol-related crashes. In contrast, the prevalence of drug-related road fatalities is on the increase. One strategy that targets drink and or drug driving is the promotion of a designated driver or 'skipper'. This paper determines to what extent the 'skipper' is driving alcohol or drug free.

**Methods:** A convenience sample of university students from The University of Western Australia completed a confidential questionnaire that included questions on drug and alcohol use while driving as the designated 'skipper'.

**Results:** The mean age of the 286 participants was 21 years. Among the students who reported regularly drinking alcohol, 26% of drivers drove, as the designated 'skipper,' while feeling the effects of alcohol. Similarly, 17% of students who reported using drugs drove, as the 'skipper', while feeling the effects of the drug. Multivariate analysis identified that the presence of random drug testing would act as a deterrent for drug driving whilst the designated 'skipper'.

**Discussion:** Although three quarters of designated 'skippers' do not drink and or drug drive, a sizeable proportion of young drivers continue to place themselves and more importantly, their passengers, at an elevated risk of injury. Campaigns that target the responsibility of the 'skipper' and that are included as part of drink-driving campaigns would be beneficial.

**Keywords**

Drink Driving, Drug Driving, Designated Skipper

## **INTRODUCTION**

Since random breath testing (RBT) was introduced in Australia there has been a significant reduction in serious motor-vehicle related crashes (1). A six-year review following the introduction of RBT in Western Australia, found a 43% reduction in nighttime alcohol-related serious crashes (2). The success of RBT has led to a change in cultural norms with regard to drink driving.

Whilst the prevalence of drink driving may be declining, there is evidence to suggest that the drug-driving problem (in combination with alcohol) is on the increase (3). Research from South Australia (4) found almost one quarter of non-fatally injured drivers tested positive for drugs. Cannabinoids were the most frequently detected drugs after alcohol. Similarly, in Western Australia, of the 223 road fatalities in 1998, drugs (including alcohol) were detected in 160 of these fatalities (5).

One strategy that targets drink and or drug driving is the promotion of a designated driver or 'skipper'. Although this strategy has been advocated since the early 1990's, there are few studies that have reported its success. In particular, there is a paucity of research that has determined to what extent the 'skipper' is driving alcohol or drug free. This paper documents the characteristics as well as the proportion of 'skippers' who are drinking alcohol or taking drugs and driving. The paper discusses these findings in relation to designated 'skippers' as a public health strategy.

## **METHODS**

A convenience sample of 286 university students from The University of Western Australia participated in the study. The students were selected to represent the faculties of the university: science; medicine and dentistry; arts; economics, commerce, education and law; and engineering & mathematical science. Students were approached to participate in the survey 15 minutes prior to the cessation of the lectures. Each student completed, anonymously, a questionnaire that included questions on general health, drug and alcohol use, drug and alcohol use whilst driving and as the designated skipper, and attitudes and beliefs about drug and alcohol driving and drug driving education. The questionnaire was piloted on a sample of students prior to its administration.

The proportion of 'skippers' who drove whilst under the influence of alcohol and or drugs was estimated from the sample. Both univariate and multivariate statistics were undertaken. The latter involved assessing the independent contributions of variables to the risk of driving under the influence of alcohol or drugs whilst a designated 'skipper'. This was conducted using unconditional logistic regression on STATA software (6).

## **RESULTS**

Over half of the respondents were female (51%, n=146) with the mean age of 21 years for both males and females. Thirty percent of the respondents came from the Faculty of Engineering and Mathematical Science, 28% from Medicine and Dentistry, 16% from Arts, 16% from Science and 10% from Economics, Commerce, Education and Law. Ninety two percent of the respondents drove a motor vehicle and 4% rode a motorcycle on a regular basis.

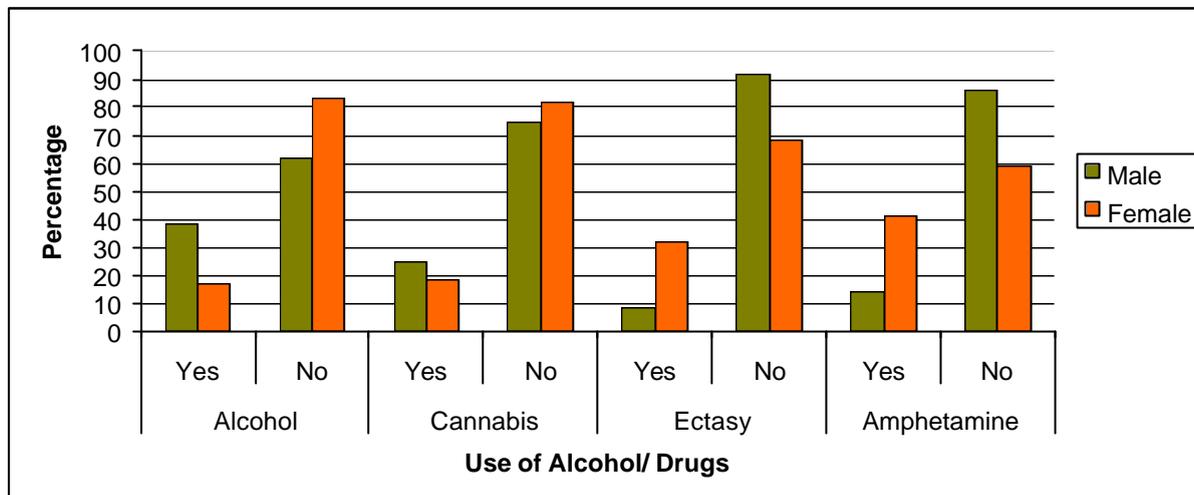
Almost half (47% n=133) of the respondents reported having a drink containing alcohol approximately once a week, with 15% (n=42) of the respondents drinking most days of the week. Eleven percent (n=31) of the respondents did not drink alcoholic beverages. There was a significant association between gender and alcohol consumption with a higher proportion of males consuming alcoholic beverages on a regular basis ( $\chi^2=19.7$ , df=5, p=0.001).

The respondents were asked to report the frequency of drug use over the past 12 months. Cannabis was the most frequently used drug with 37% (n=103) reporting having used cannabis in the preceding 12 months. Of those who reported using cannabis, 17% (n=18) reported regular use (more than once a week). Ecstasy use was reported by 21% (n=58) of the respondents, whilst amphetamine (speed) and dexamphetamine (dexies) use was reported by 13% (n=35) and 15% (n=40) of respondents, respectively. The use of LSD or hallucinogens was reported by 9% (n=23) of respondents while cocaine and heroin use was low: 2% (n=6) and 1% (n=4), respectively.

Among those drivers who drove a motor vehicle (92% n=264), 85% (n=221) had reported acting as the designated 'skipper' sometime during the last 12 months. There was no association between the frequency of reporting being the designated 'skipper' and the gender of the driver ( $\chi^2=0.69$ , df=1, p=0.406).

Twenty six percent (n=57) of drivers, when nominated as the designated ‘skipper’, reported driving whilst feeling the effects of alcohol in the past 12 months.

**Figure 1: Use of Alcohol/Drugs Whilst the Designated ‘Skipper’**



Among the designated ‘skippers’, significantly more male drivers (38%, n=38) compared with female drivers (17%, n=19) reported driving while feeling the effects of alcohol ( $\chi^2=11.8$ ,  $df=1$ ,  $p=0.001$ ) (see Figure 1).

Figure 1 also highlights the proportion of designated ‘skippers’ who drove in the past 12 months while feeling the effects of cannabis, ecstasy or amphetamines. Overall, approximately 21% of cannabis users (n=19) and 21% of ecstasy users (n=11) drove, as the ‘skipper’, while feeling the effects of these drugs. Twenty nine percent (n=9) of amphetamine users did the same.

Among the designated ‘skippers’ who reported drinking alcohol and or taking drugs, 14% indicated they had driven as the designated ‘skipper’ while feeling the effects of both alcohol and drugs, combined. Significantly more males (22%) reported this behaviour compared to females (6%) ( $\chi^2=4.60$ ,  $df=1$ ,  $p=0.032$ ).

As might be expected, 95% of respondents reported that driving under the influence of alcohol would increase their likelihood of crashing. The responses were more varied in relation to the effects of cannabis on the risk of crashing. Ten percent of respondents believed cannabis reduced the risk of crashing whilst a further 8% of respondents were unsure. Forty two percent of the designated ‘skippers’ who drove whilst over the legal blood alcohol limit did not believe they would be caught by police and a further 15% were unsure.

The first multivariate model identified factor(s) that predicted the likelihood of drink driving whilst the designated ‘skipper’. Table 1 highlights that ‘skippers’ who felt they were unlikely to be caught by police were twice as likely to drive (OR=2.1, 95% CI=1.02-4.31) whilst over the legal blood alcohol limit compared with skippers who thought they would be caught.

**Table 1: Predictors of Drink-Driving Among Designated ‘Skippers’\***

Variable	Odds Ratio	95% Confidence Interval
“I am likely to be caught by police if I drive over the legal blood alcohol limit”		
Agree	1.00	--
Unsure	0.86	0.30 to 2.45
Disagree	2.10	1.03 to 4.31

-2 log Likelihood 222.7

\* Model is adjusted for sex

The second model determined what factors predicted drug driving whilst the designated ‘skipper’. Designated ‘skippers’ felt the presence of random drug testing would reduce their likelihood of driving under the influence of drugs by approximately 84% (OR=0.16, 95% CI=0.05 to 0.49) (see Table 2). This is relative to designated ‘skippers’ who did not agree with random drug testing.

**Table 2: Predictors of Drug-Driving Among Designated ‘Skippers’\***

Variable	Odds Ratio	95% Confidence Interval
“I would not drive if there was random drug testing on the roads”		
Disagree	1.00	--
Unsure	0.19	0.03 to 1.03
Agree	0.16	0.05 to 0.49

-2 log Likelihood 113.9

\* Model adjusted for sex

## DISCUSSION

Almost two thirds (62%) of the respondents in this study reported consuming an alcoholic beverage at least once a week while only 6% of respondents reported using cannabis at the same frequency. Cannabis is the most frequently used illicit drug with approximately one third of respondents having used cannabis in the past 12 months. Interestingly, 21% of respondents had used ecstasy in the past 12 months. The reported levels of alcohol and drug use in this study are higher than other West Australian (2) and interstate studies (4). The elevated levels in this study could be attributed to greater homogeneity of the participants reflecting the sampling process adopted.

This study highlights that a significant proportion of designated ‘skippers’ are not alcohol (26%) or drug (predominantly cannabis) free (18%). These findings are of concern, particularly the fact that more than one quarter of ‘skippers’ drink and drive. The risks associated with drinking alcohol and driving are well documented; a driver’s risk of crashing increases 6 times if under the influence of alcohol (3). Clearly, the respondents were aware of the risk of injury but this was not a sufficient deterrent. Similarly, the likelihood of not being caught by police – approximately 42% of ‘skippers’ believe they are unlikely to be caught by police is also not a deterrent. Targeted strategies are needed in order to reduce the proportion of designated ‘skippers’ drink driving. Campaigns that target the responsibility of the ‘skipper’ and that are included as part of drink-driving campaigns would be beneficial.

In contrast to the perceptions of ‘skippers’ who drink drive, the findings from this study suggest that random drug testing on roads would reduce the likelihood of drug driving among designated ‘skippers’. In fact, the presence of random drug testing could reduce the likelihood of ‘skippers’ driving under the influence of drugs by approximately 84%. Although the proportion of designated ‘skippers’ who reported driving under the influence of drugs was small (n=39), the limitations of the research are such that generalisation to all drivers is not possible. However, it is evident from this and many other studies (4) that drink driving is a greater problem among drivers (including designated ‘skippers’). Therefore, before any decision is made on random drug testing of drivers, the cost effectiveness of such a strategy needs to be comprehensively assessed.

Although three quarters of designated ‘skippers’ do not drink and or drug drive, a sizeable proportion of young drivers continue to place themselves and more importantly, their passengers, at an elevated risk of injury. The findings suggest that campaigns that target the responsibility of the ‘skipper’ and that are included as part of drink-driving campaigns should be advocated. Although random drug testing of drivers was perceived to be a deterrent among respondents in this study, due to the low prevalence of drug driving among respondents, this may not be a cost effective strategy. Due to the nature of this research, it does not allow us to obtain a reliable estimate of the proportion of ‘skippers’ who drug drive. Consequently, further research needs to undertaken in order to obtain population-based estimates of drug driving before a recommendation on random drug testing is made.

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