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ABSTRACT

Persons in the Northern Territory who drink have the highest per capita daily consumption of alcohol and the highest rate of tobacco smoking in Australia. This study identifies the drinking patterns and demographic and personal variables that might predict risk levels for Northern Territory University (NTU) students and therefore give direction to health promotion programs. The sample comprised 430 NTU students ages 18 and older. Assessment of questionnaires shows that there is not on the whole a serious drinking problem at NTU, but that there is a small group of heavy drinkers that could benefit from alcohol education. Ethnic origins, position in family, and type of drink preferred were related to drinking patterns. Males drink more heavily than females, with males typically drinking beer and females drinking wine. Ethnicity showed a consistent link to alcohol consumption; the highest risk individuals tended to be beer-drinkers of Australian or United Kingdom extraction. Marital status, income, accommodation and age were related to student smoking. A higher percentage of younger females smoked than males; thus, anti-smoking campaigns should especially target younger students and females. Findings are illustrated with 11 pie charts and 6 graphs; the questionnaire is appended. (LSR)

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DRINKING AND SMOKING HABITS OF STUDENTS AT NORTHERN TERRITORY UNIVERSITY

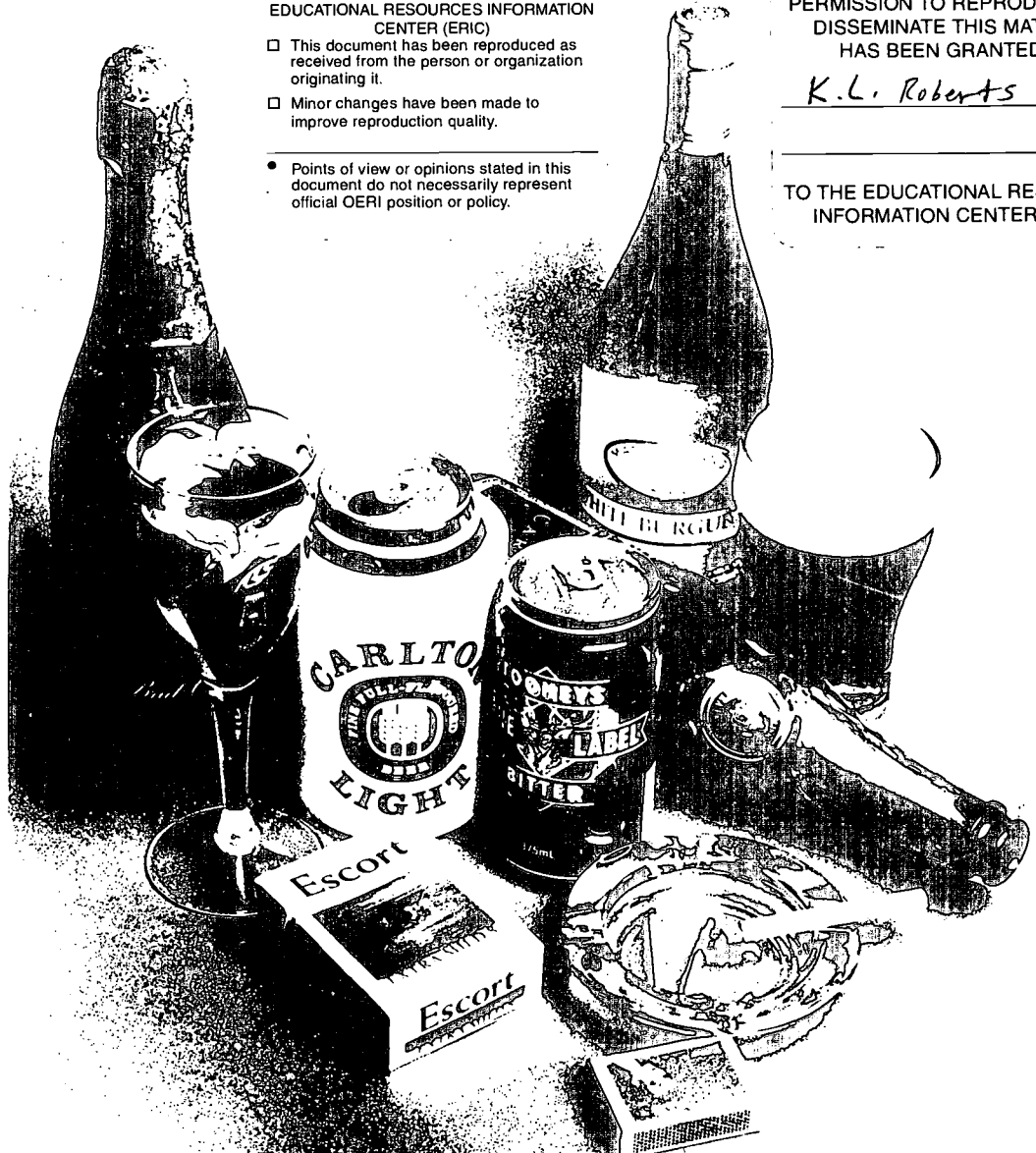
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Kathryn L Roberts and Adrian S Jackson

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by

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CHAPTER I

THE FRAMEWORK

1.1 Background

This study was undertaken in order to ascertain the drinking patterns and any demographic and personal variables that might predict risk levels for Northern Territory University (NTU) students from alcohol consumption and smoking patterns and therefore give direction to health promotion programs. Persons in the Northern Territory who drink have the highest per capita daily consumption of alcohol, the highest rate of consumption of wine and full strength beer, and the highest rate of tobacco smoking in the country (ABS 1992 a and b). NTU students live for the duration of their studies in what appears to be a geographical area that has greater risks for alcohol consumption and smoking, where the image of the Territorian is a hard-drinking frontiersperson. Many university students are also in the 18-25 year age group which proportionately consumes the most alcohol. Therefore, university students in the Northern Territory might be facing a higher risk than their interstate peers from alcohol drinking and tobacco smoking.

1.2 Literature Review

1.2.1 Students' Alcohol Consumption

Tertiary students form a particular subgroup of the Australian population with its own characteristics. In Australia, there have only been a few studies done on alcohol use and abuse by Australian university students. In 1978, Neil studied 555 teacher education students in Sydney, Australia and Leeds, U.K. She found that a much higher proportion of British students (91%) than Australian (66%) were drinkers and a higher proportion of the British students were heavy drinkers. She also found that most Australian students were light to moderate drinkers; more Australian males drank than females; males were heavier drinkers than females; and that Australian males chose beer and females chose wine and spirits. The Sydney students drank at parties, hotels, clubs, restaurants, and at home. Half of the male students and one-third of female students had experienced problems such as missing lectures and loss of memory at least once. These findings were derived from the study of Australian teacher education students only and should not be generalized to all tertiary students.

In 1979, Adams surveyed 643 undergraduates at the University of New South Wales which showed that 92% of males and 96% of females drank alcohol, with slightly over half drinking on a weekly basis (Adams, 1979). Most students stated that when they drank, their alcohol consumption was in the range of 10-40 grams per day, i.e. in the light to moderate range, which was consistent with Neil's findings. Few students (1.5%) drank alcohol heavily on a daily basis. Adams also found that the males tended to drink alcohol more frequently and more heavily on single occasions than females. He found that drinking rate was not related to students' age, year of study, domestic circumstances or family. The sample was a representative sample but the method of selection and the return rate were not given.

In 1982, Engs surveyed Australian human-service students including students in law, pharmacy, social work, applied psychology, and medicine at Queensland University. She also surveyed students from the police academy, religious seminaries and nursing schools in Brisbane (Engs, 1982). Her findings were that 85% of students drank, but only 60% had drunk alcohol in the last month. Wine was the beverage consumed in the last year by most students (85%) with beer (57%) and spirits (50%) the next most popular. However, beer was the beverage consumed in the greatest quantity with 100 litres of beer, 13 litres of wine and 6.5 litres of spirits being consumed per year by those respondents who drank. She found that two-thirds of students (68%) were light drinkers consuming up to 20 gm alcohol per day, with very few (3.4%) being heavy drinkers (>60 gm/day). She also found that men consumed more than twice as much alcohol per day as women, with more women drinking but most being classified in the light to moderate range. The few heavy drinkers tended to be men. She found that the male students in this study consumed less alcohol than men in Australia generally or in Queensland in particular. Law and police students consumed most alcohol and most of the health related student groups had the lowest intakes; however, the former were predominantly male and the latter predominantly female.

A questionnaire survey by Wilks (1986) of 232 undergraduates in introductory psychology classes at the University of Queensland showed that most students (90%) currently drank alcoholic beverages, with about half drinking on a weekly basis. The heavier drinkers (3-4 times a week or more) drank beer, but when this was broken down by gender, the male heavier drinkers drank beer while the females drank wine or spirits. He found that more males than females drank on a weekly basis, males drank more frequently than females, and that males chose beer while females chose wine and spirits. The female drinkers were clustered predominantly in the light drinker category (79%), with some (5%) in the moderate category with almost no one in the heavy drinker category. Males had

fewer (58%) in the light category and more (23%) in the moderate and heavy (3.5%) drinker categories. These findings were similar to those of Adams and Neil.

O'Callaghan, Wilks and Callan (1990) surveyed 122 students from Queensland University. The age range was from 18-22 years. Most students (90%) did use alcohol, but the heavy drinkers were males, who chose spirits and beer while females chose wine and spirits. This study was done on first year psychology students only and thus would not be representative of all university students. The participation rate was not given.

Bush (1990) comparing 17-24 year olds in various drinking contexts, found that students in a tertiary residential college drank an average of less than three drinks per day. The heaviest consumers were males.

In a study of New South Wales TAFE students, Prill and Newman (1987) found that approximately one-third (35%) of the students had not drunk alcohol in the week prior to the survey. Most students drank in hotels and clubs. More males reported drinking than females, more males indulged in heavy drinking sessions, and more males stated that they "felt sick" from alcohol. Prill and Newman found that the number of nights out for fun was a significant predictor of drinking and that males with higher incomes, who went out more nights to enjoy themselves tended to be the heaviest drinkers. Male students preferred beer (65%) or spirits (26%) while females preferred spirits (44%) and wine (23%). Only a few men (6%) preferred wine and only a few females (12%) preferred beer. It is of note that only 1% of all students preferred low alcohol beer. Prill and Newman also found that students in the \$150-200 weekly income range drank significantly more than those whose incomes were above or below that level. This was the income level of an apprentice in a trade. They found some cultural differences in that a greater percentage of students born in Western Europe or the United Kingdom than Australian students were weekly drinkers but there was no difference in the percentage of daily drinkers for the UK and Australia, although a lower proportion of those born in Western Europe were daily drinkers.

1.2.2 Students' Smoking Habits

A search of the literature found few studies on tertiary students smoking habits in Australia, perhaps because attention is focussed on the younger groups such as high school students and others who are just beginning to smoke.

Adams (1979) reported that about one quarter of students were tobacco smokers, with 28% of male subjects being smokers compared with 23% of females. Among current smokers, 60% of males and 76% of females smoked most days, with a further fifth of the subjects, 23% of males and 16% of females, smoking occasion-

ally during the week. The differences between males and females were not statistically significant except for the finding that more females than males had never smoked. Smoking was not related to students' age, year of study or place of residence. However it did vary across faculties with 13% of students in applied science and 38% of students in Law smoking.

Prill and Newman (1987) investigated smoking behaviour in TAFE students. They found that 29% of TAFE students smoked cigarettes regularly and a further 9% smoked occasionally. Thirty-two percent of the students claimed never to have smoked. There was little difference in the percentage of males and females who were regular smokers. They found that the heavier smokers tended to come from the middle income brackets, with 41% of students earning between \$100 to \$200 per week and 48% who smoked more than a packet per day falling into the same salary bracket. No students in the under \$50 per week group regularly smoked more than a packet of cigarettes per day. Also, the number of nights out for fun was the variable most associated with smoking.

1.3 Aims and Hypotheses

The aim of the study was to identify student drinking and smoking patterns in general and to identify factors which would predict which students might be at risk from alcohol drinking and smoking.

From the literature, it was hypothesized that:

1. Males would drink more than females.
2. Males would prefer beer and females would prefer wine or spirits.
3. Males would be more likely to be in the medium and high risk groups than females.
4. Those born in Australia would be more likely to be in the medium and high risk groups than those born in the U.K.
5. Those who go out more nights for fun would be more likely to be in the medium and high risk groups for alcohol than those who go out fewer nights for fun.
6. There would be no difference in amounts of cigarettes smoked by males and females.
7. The heaviest smokers would be in the middle income bracket.
8. The heaviest smokers would go out most nights for fun.

CHAPTER II

METHOD

2.1 The Setting and Subjects

This study took place at the Northern Territory University, Darwin, N.T. The Northern Territory University is a new university, a product of the wave of amalgamations in the late 1980's. It had approximately 7,000 students at the time of the study. It is an unusual Australian University in that it includes the Institute of TAFE, giving a diversity of students not found in other universities. At the time of the study, it had four faculties and eight ITAFE schools.

A computer program was used to select a 10% random sample of 732 students from all faculties and schools. The sample was stratified for Faculty/school, full-time/part-time enrolment and gender.

2.2 Instrument and Procedure

The instrument was a questionnaire modelled on one used by the Northern Territory Drug and Alcohol Bureau of the Department of Health and Community Services (ABS, 1990). A copy of the questionnaire can be found in Appendix A. The alcohol usage questions were taken from the latter, while the items concerning personal and demographic data were developed by the researchers. The questionnaire was piloted for clarity by a small group of students who were instructed not to answer the questionnaire again if they received it in the main survey.

The questionnaires were sent out by post to the students. A letter was included which explained the nature of the research and that the replies would be anonymous and the data would be kept confidential. A stamped, self-addressed envelope was included as well as a stamped, self-addressed postcard with the student's name on it, to be posted by separate mail by those who had posted the questionnaires, so that a follow-up would not be necessary for those who returned the postcard. A follow-up round of questionnaires and stamped, self-addressed envelope was sent out to non-responders one month after the first round.

The students were asked for data about their drinking alcohol during the previous week, and to respond as if the week were typical if it were not.

In the questionnaire, information was sought about independent variables concerning personal factors such as age, gender, position in the family, step-siblings, country of birth, country of birth of parents, race, language spoken, and marital status. Information was also sought about educational factors such as faculty or ITAFE school, full or part time enrolment, level of course. Information was also sought about social variables such as income or allowance, accommodation, employment status, and number of nights spent socializing for fun.

Information was requested about alcohol drinking in terms of whether the student had drunk alcohol before entering university, whether the student had drunk alcohol at all, amounts of alcohol usually consumed, and effects of alcohol on self and others. Information was requested about smoking patterns. These factors were used as dependent variables in the analysis.

2.3 Data Analysis

The data were entered into a Macintosh computer and analyzed using appropriate statistical procedures on StatView. Frequencies were done to elicit descriptive data. Chi squares, contingency tables, and other appropriate non-parametric tests were used to establish relationships in the data. Non-parametric tests were done because the dependent variables were highly skewed. A 95% level of confidence was set.

In calculating the risk levels of the subjects, the average daily consumption of alcohol was calculated from the number and type of drinks. The volume of alcohol per drink was the normal volume for the Territory. Beer contains 17 ml of alcohol per can, wine contains 18 ml of alcohol per standard glass and spirits contain 12 ml of alcohol per nip. The risk levels were based on the National Health and Medical Research Council recommendations (ABS, 1992a). Females who drank 1-24 ml of alcohol per day were classified as low risk, with those consuming 25-49 ml of alcohol per day classified as medium risk and those consuming over 50 ml of alcohol per day classified as being in the high risk category. Males who drank less than 50 ml per day were classified as low risk, those with 50-75 ml were classified as medium risk, and those consuming over 75 ml per day were classified as high risk (ABS, 1992a).

CHAPTER III

RESULTS

3.1 The Return Rate

The researchers sent out 732 questionnaires. The return rate was 58%, which was good for a postal questionnaire. Within Higher Education, the overall return rate was 75%. Arts had a return rate of 70%, Business 74%, Education 76% and Science 89%. None of these was significantly over-represented or under-represented, according to a goodness of fit statistic. Within ITAFE, the overall return rate was 40%. The return rates for Tourism and Hospitality (68%) and Business (60%) were fairly high, while those for Mechanical Trades (19%), Technology (24%) and Electrical Trades (23%) were low. Vocational Studies, Construction, and General Studies were representative.

3.2 The Sample

The sample comprised 430 NTU Students from age 18 and up. Figure 1 shows the age composition of the sample.

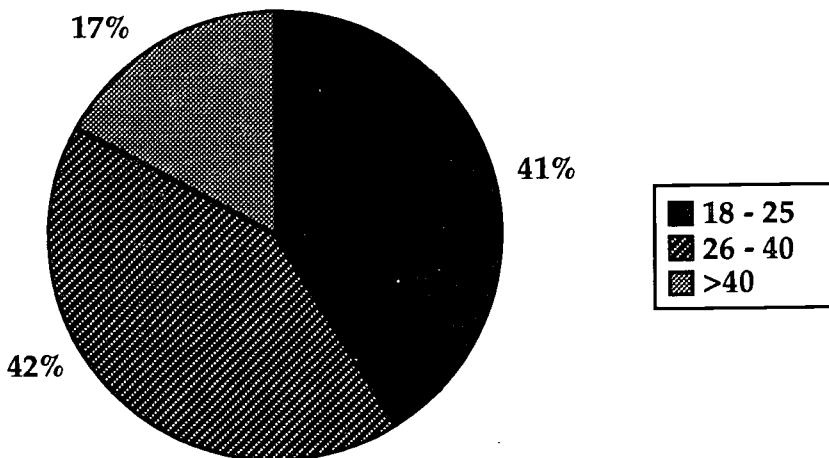


FIGURE 1

Age Distribution of Sample

Figure 1 shows that almost half of the sample was in the 18-25 year old group, whose drinkers in the national survey had the highest average daily intake of alcohol.

Females comprised 58% of the sample and males 42%. In the population, females comprised 49%, so in this sample, females were slightly over-represented.

Figure 2 shows the birthplace distribution of the sample.

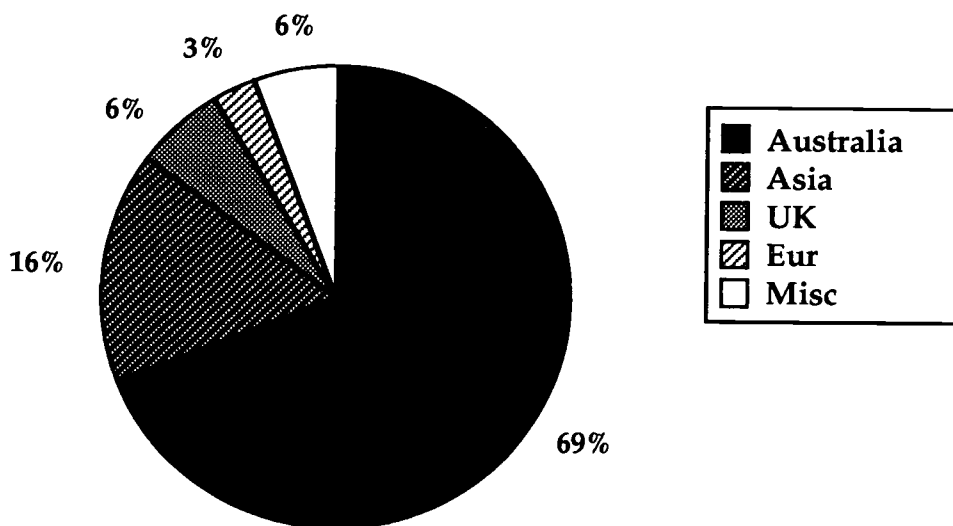


FIGURE 2

Birthplace Distribution of the Sample

Figure 2 shows that most subjects were born in Australia, with the next largest group born in Asia and some born the United Kingdom and Europe. Slightly over half (57%) had parents born in Australia, while the next largest group (16%) had parents born in Asia, and some (12%) had parents born in the UK and Europe (9%). There was no difference in percentages between the mothers' and fathers' birthplace. Figure 3 shows the distribution of the birthplace of the parents.

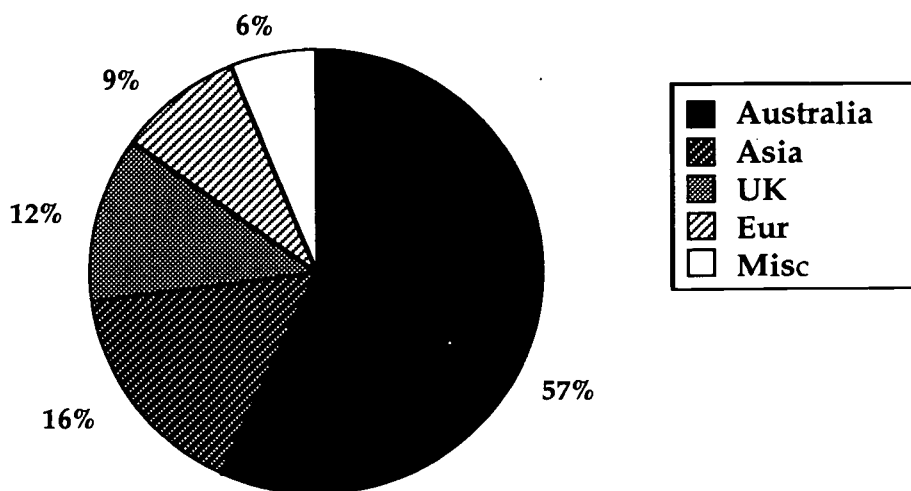


FIGURE 3

Birthplace Distribution of the Parents of the Sample

A few (5%) considered themselves to be Aboriginal/Torres Strait Islanders. Three-quarters (76%) spoke only English at home while one-fifth (20%) spoke English plus another language and a few (4%) spoke another language only. Almost half were either only children (4%) or first born with brothers and sisters, (38%) while about one third (36%) were between the oldest and youngest and one fifth (22%) were the youngest in the family. Fifteen per cent had step-siblings. More were never married (44%) than married (35%), in a partnership other than marriage (13%), or divorced/separated (8%).

The Higher Education sector accounted for 65% of the sample, while ITAFE accounted for 35%. Higher Education was significantly over-represented in the whole sample, while ITAFE was significantly under-represented. In the Higher Education Sector, Arts accounted for 24% of the total sample, Business accounted for 16%, Education accounted for 15% and Science accounted for 10%. All of these were over-represented. In the ITAFE Schools, Business comprised 12% of the sample, Construction and Technology each comprised 5%, Tourism and Hospitality and General Studies each comprised 4%, Vocational Studies and Mechanical Trades each comprised 2%, and Electrical Trades comprised 1%. Technology, Electrical Trades and Mechanical Trades were under-represented. The proportional representation was calculated using a goodness of fit statistic, with the expected frequency 58% of the number of questionnaires sent out for each group. Figure 4 shows the distribution of the sample according to higher education faculty and ITAFE School.

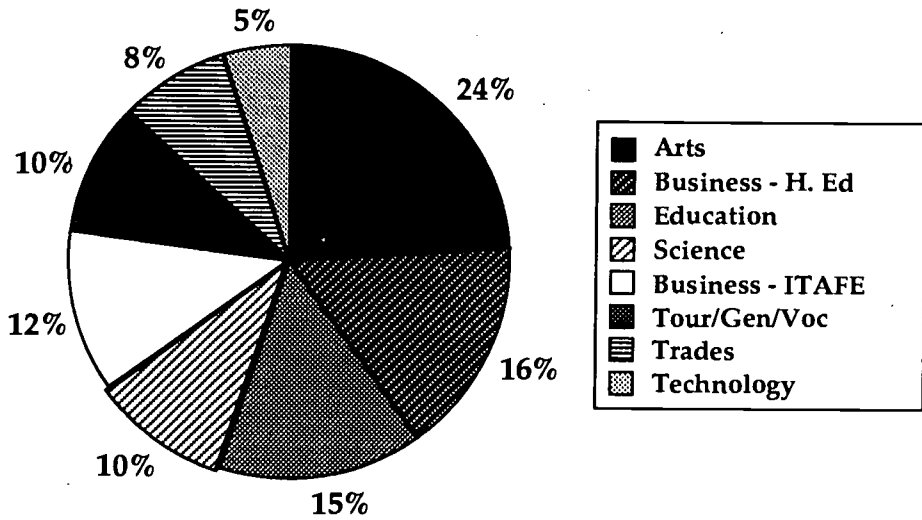


FIGURE 4

Distribution of Sample by Faculty/School

The sample was evenly divided between full-time students (52%) and part-time students (48%). Figure 5 shows the distribution of the sample by level of course that they were undertaking.

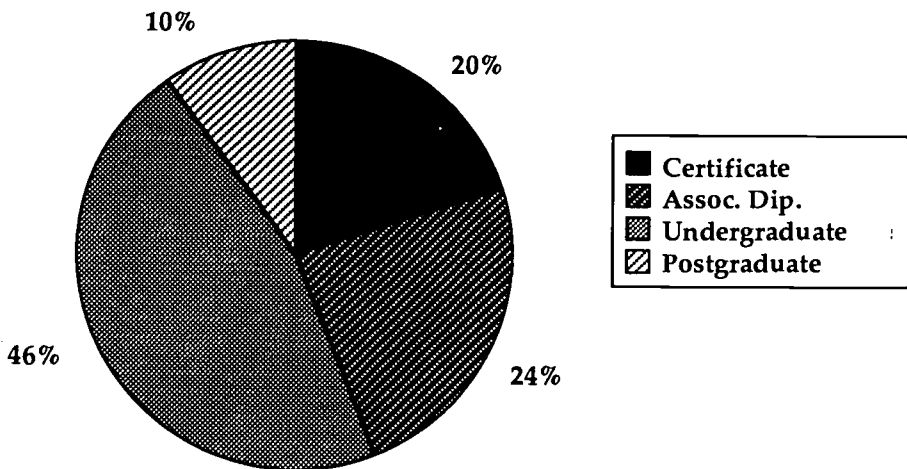


FIGURE 5

Distribution of Sample by Type of Course

Figure 5 shows that undergraduates accounted for the majority of the sample. Undergraduate degree (including Honours) and diploma students accounted for

46% and post-graduate students accounted for the rest of the Higher Education students (10%). Certificate students accounted for one-fifth of the sample, while Associate Diploma students accounted for about one-quarter. The latter two were combined for subsequent analysis.

About one-third (39%) of subjects owned their own home, or were in rented accommodation (35%) while one-fifth (22%) lived at home with their parents and a few (5%) lived in university accommodation. The latter were combined with those in rented accommodation for further analysis because for the purposes of alcohol consumption that was the most similar group in terms of supervision and because students in university accommodation rent their rooms.

Many students (40%) were in full-time employment, while about one-quarter (29%) were not employed, and some were employed part-time or casual (31%). About one-third reported an income from work of less than \$50 per week, while one-fifth (34%) earned from \$50-200 per week and the remainder (49%) earned over \$200 per week. Most (82%) reported that they received less than \$50 per week allowance or income from other sources, while some (15%) received an allowance of \$50 to \$200 per week and some (3%) received over \$200 per week.

3.3 Portrait of the Student Drinking Population

3.3.1 Drinkers or Abstainers?

Most (85%) of the students reported that they had had an alcoholic drink at some time in their lives. About one-third (36%) of the students stated that they did not normally drink. Slightly more females (39%) than males (31%) reported that they did not normally drink. However, this was not a statistically significant difference. Most students (80%) had had an alcoholic drink before they enrolled at university. Equal numbers of males and females had drunk alcohol before enrolling in university.

Cross-tabulations showed that many variables were related to whether a person drinks alcohol or not. The non-drinkers were more likely to be younger ($p = 0.04$), firstborn or only children ($p = 0.03$), and Asian-born ($p = 0.001$) with Asian-born parents ($p = 0.0001$). Only one-third of Asian-born students were drinkers while three-quarters of Australian-born (73%), UK-born (75%) and European-born (79%) were drinkers. Students of Asian extraction who were born in Asia were more likely to be non-drinkers than those who were born in Australia ($p = 0.04$). Non-drinkers were more likely to be in full-time enrolment ($p = 0.007$), doing a certificate or associate diploma at ITAFE ($p = 0.007$), living in rented accommodation or with their parents ($p = 0.009$). They were also more likely to be unemployed ($p = 0.0001$), with low incomes ($p = 0.0001$), and going out fewer nights for fun ($p = 0.0011$). Many

of these variables were correlated such as age and income. Conversely, the drinkers were more likely to be older, to be middle or youngest children, and to be Australian, UK or European-born. They were more likely to be studying part-time at the undergraduate degree or diploma level, employed with higher incomes, living in their own homes and going out more nights for fun.

Most drinkers (82%) had had an alcoholic drink before coming to university while most (77%) non-drinkers had not ($p = 0.0001$). This suggests that drinking patterns have been established before university and are continued there.

3.3.2 Family Members

Few subjects (5%) reported that they had a spouse or partner who had problems with alcohol. Few subjects (3%) reported a mother with alcohol problems, while more (15%) reported a father with alcohol problems. Few drinkers (10%) reported a sibling with alcohol problems. There were no differences between drinkers and non-drinkers on family members with alcohol problems.

3.3.3 How Much Do They Drink?

Most of the drinkers (80%) reported drinking fewer than 3 standard drinks per day, with 17% drinking from 3-5 drinks per day and 3% reporting drinking 5 or more per day. Figure 6 shows the distribution of average number of drinks per day. These figures were significantly less than the estimates for amount drunk on a day on which the subject drinks because they were averaged across the week. Subjects estimated that they drank 2 3/4 drinks per day when drinking. This points to a pattern of drinking on some days and not drinking on others.

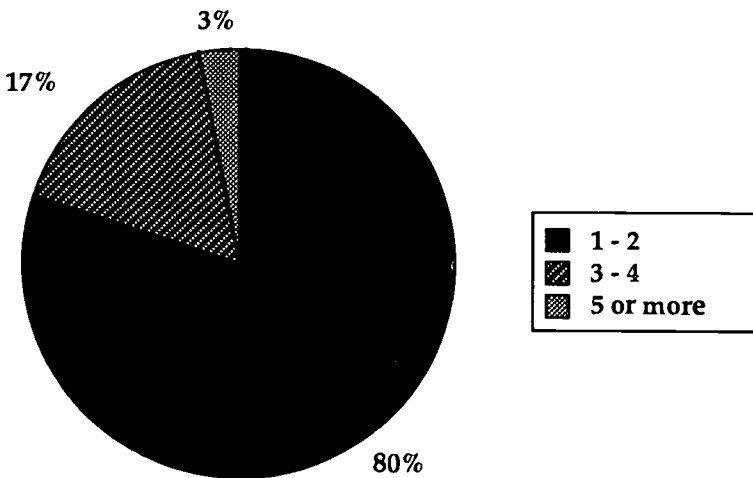


FIGURE 6
Average Number of Drinks Per Day

Male drinkers estimated that they drank 3 1/4 drinks per day when drinking, and the equivalent figure for females was 2 1/2 drinks. Males actually drank slightly more than females, averaging 1.7 drinks per day, compared to 1 for females. This difference was statistically significant (Mann-Whitney U-test; $p = 0.0001$). Therefore hypothesis 1 was supported.

3.3.4 When Do They Drink?

The students drink primarily at the weekend on Friday and Saturday evenings. Figure 7 shows the drinking pattern for days in the week.

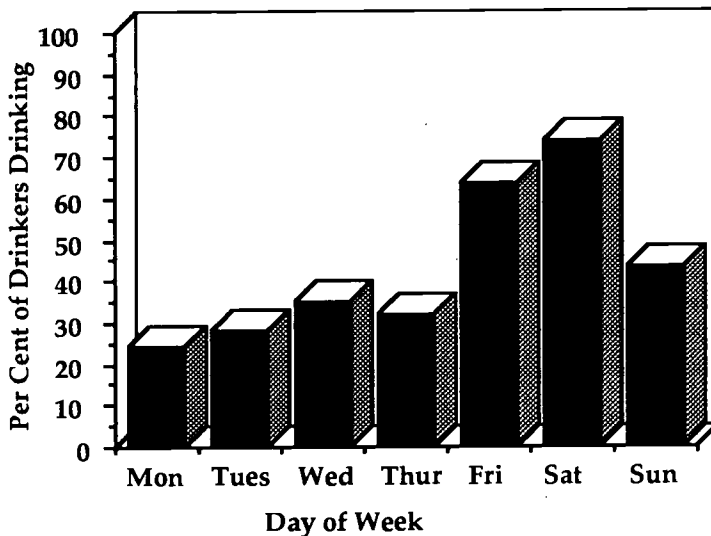


FIGURE 7

Alcohol Consumption by Days of the Week

There was a noticeable upsurge in drinking on Friday, Saturday and Sunday, with Saturday being the most popular (74% of drinkers drinking), Friday the next most popular (64% drinking), and Sunday the third most popular (43% drinking) days. On weekdays, from one-quarter to one-third (24-32%) stated that they drank alcoholic beverages.

3.3.5 Purchasing Patterns

Students primarily purchased alcohol at the supermarket or bottle shop. Figure 8 shows the places at which alcohol was purchased.

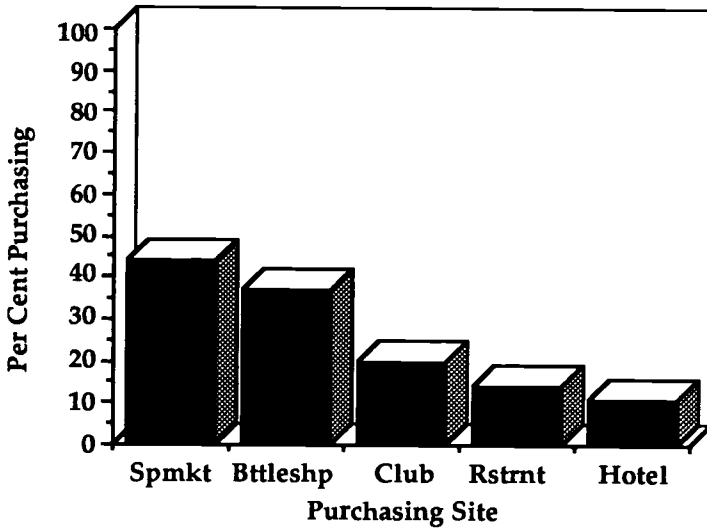


FIGURE 8

Places at Which Alcohol Was Purchased

The purchase of alcohol was mainly off licence at the supermarket (44%) or a bottle shop (37%). Some purchased alcohol on licence at a club (21%), a hotel (11%) or a restaurant (15%).

3.3.6 Where Do They Drink?

Figure 9 shows the places at which alcohol was consumed.

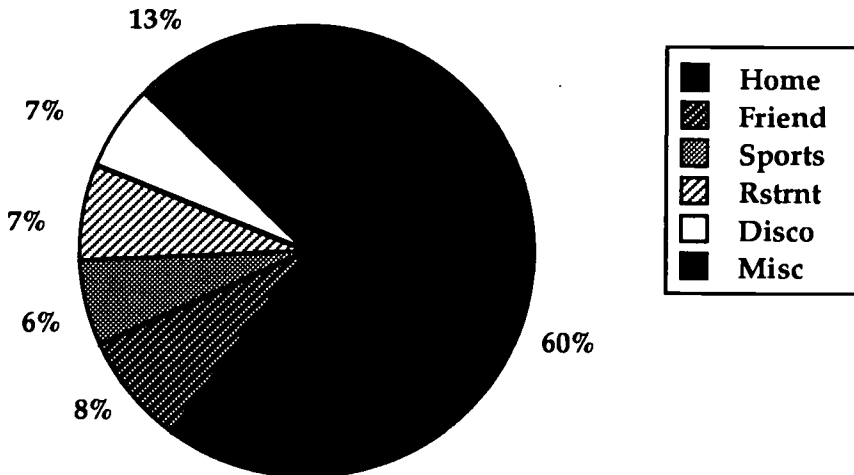


FIGURE 9

Places at Which Alcohol Was Consumed

As far as places that alcohol was most often consumed, more (60%) reported drinking at home than at any other place. The 60% comprised 54% drinking with family or friends and 6% drinking alone. Few (8%) reported drinking in a friend's house or at a sporting event (6%). Few also reported drinking in a restaurant (7%) or at a dance or disco (7%). Hardly anyone reported drinking, in a car/street or open air, at the beach, private party, hotel, university or in a club.

3.3.7 What Do They Like to Drink?

The favourite drinks of the drinkers were regular strength beer (12%), wine (including champagne) (13%) low alcohol drinks (11% comprising 10% light beer and 1% wine coolers) and spirits (9%). Some people stated that they preferred more than one drink, and combinations of drinks such as wine and spirits (15%), beer wine and spirits (13%), and beer and spirits (11%) were reported. The heaviest drinkers in terms of total drinks in the reference week were the regular strength beer drinkers (11 drinks) and those who reported a mixture of drinks such as beer, spirits and wine (8 drinks), followed by spirits drinkers (5 drinks), wine drinkers (4 drinks) and light beer drinkers (6 drinks).

There were some differences for males and females. Figure 10 shows the different beverage preferences of male and female drinkers.

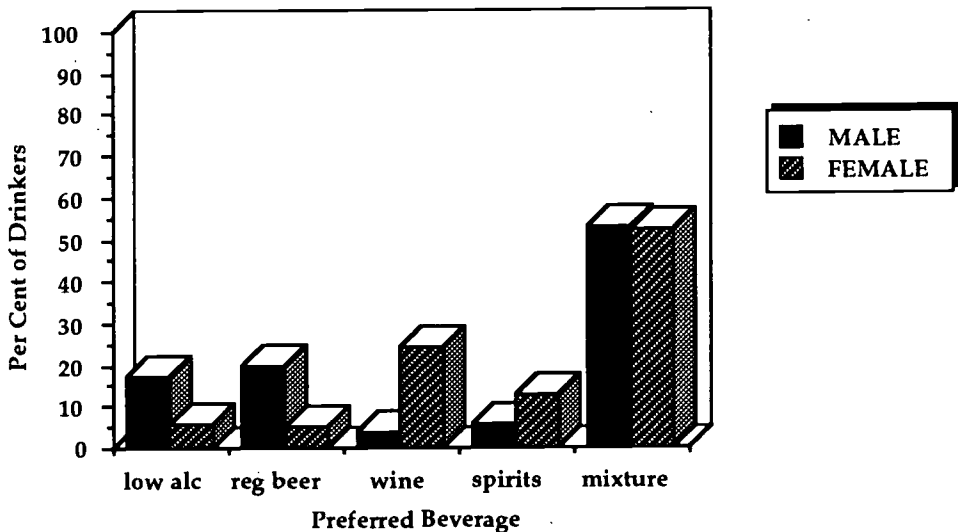


FIGURE 10

Gender and Beverage Preference

When considering only those drinkers who stated a preference for one type of drink (45%), half of the females (51%) preferred wine, with some preferring spirits (26%) and few preferring beer (11%) and low alcohol drinks such as light beer and wine coolers (12%). Of the males, almost half preferred beer (43%) and low alcohol drinks (36%), with some preferring spirits (12%) and few preferring wine (9%). Three-quarters of the beer drinkers were males and three-quarters of the spirit drinkers were females, with 89% of the wine drinkers being females. Thus, hypothesis 2 was supported ($p = 0.0001$).

The type of beverage was also linked to the number of nights out for fun. The beer drinkers, low alcohol drink drinkers and the drinkers of more than one type of drink went out more nights for fun while the wine drinkers went out fewer nights for fun ($p = 0.004$). Males were more likely than females to go out more nights for fun, although the difference did not reach statistical significance ($p = 0.19$). However, there may have been some influence of gender operating.

3.4 Running a Risk: Risk Levels

3.4.1 Numbers in Risk Groups

Figure 11 shows the distribution of the sample according to risk groups.

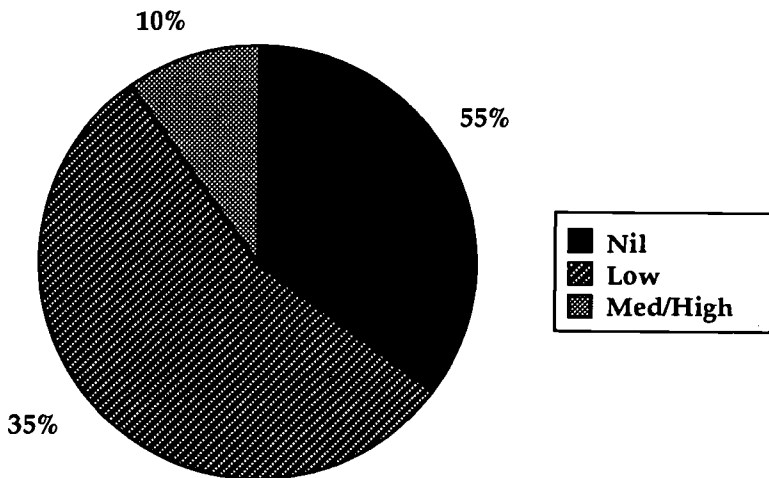


FIGURE 11

Membership in Risk Groups: All Subjects

In this sample, 35% were in the nil risk group because they did not drink alcohol in the reference week, 55% were in the low risk group, and 10% were in the medium and high risk groups combined. When considering drinkers only, most (85%) were in the low-risk group and few were in the medium and high (15%) risk groups, with slightly more in the medium (8%) than the high risk group (7%).

For drinkers, risk levels were related to position in the family, father’s birthplace, and type of drink preferred. Risk levels were not related to the subjects’ gender, birthplace, or number of nights out for fun, so hypotheses 3, 4 and 5 were not supported. As far as position in the family was concerned, fewer first-borns were in the medium/high risk group than expected and more youngest children were in the high risk group than expected ($p = 0.04$), although this relationship was only true for females. Females with step-siblings, indicative of a possible history of a broken home, were more likely to be in the medium/high risk group than the low risk group. For drinkers, one-fifth (22%) of subjects born in the UK were in the medium/high risk group. The equivalent figures for Australia, Europe and Asia were 16%, 9% and nil respectively. This difference did not reach significance although it represents a clear trend in the data for persons born in the Western world to be at greater risk than those born in Asia.

Drinkers with Australian-born and UK-born fathers were more likely to be in the moderate/high risk group than those with European-born or Asian-born fathers ($p = 0.049$). Figure 12 shows the relationship between risk levels and father’s birthplace for drinkers.

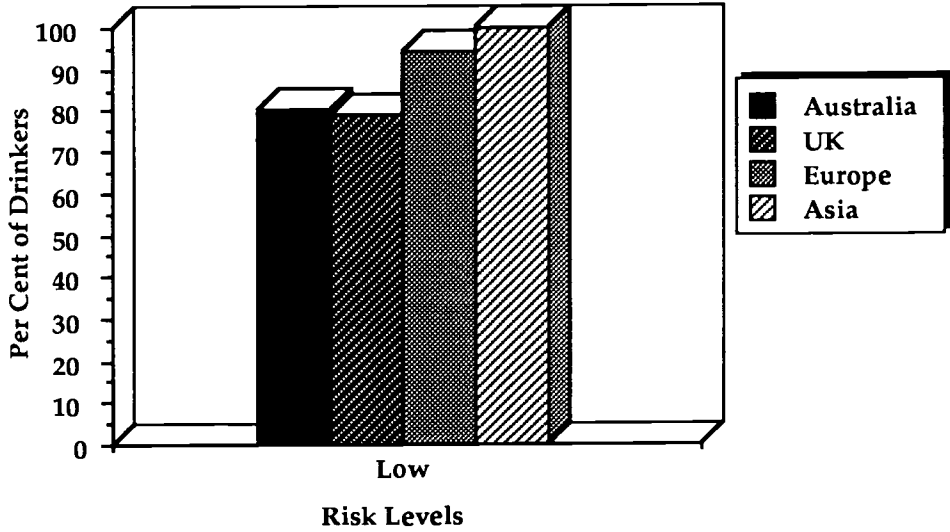


FIGURE 12

Father’s Birthplace and Risk Levels

Figure 12 shows that all drinkers with Asian-born fathers and almost all drinkers with European-born fathers (94%) were in the low risk group while fewer with Australian-born (80%) or UK-born fathers (81%) were in the low risk group, so the latter two groups of subjects accounted for almost all in the medium/high risk groups.

Those in the high risk group were more likely to be beer drinkers and less likely to be spirit drinkers ($p = 0.04$).

As might be expected, those subjects in the medium/high risk groups were significantly more likely to drink more than five drinks in a row ($p = 0.0001$), suffer from psychosocial effects such as aggression, missing classes and trouble with the law, family, and friends ($p = 0.0001$) and to have physical effects of alcohol such as headaches and vomiting ($p = 0.0001$).

It should be noted that while males drink more than females, gender did not predict risk level because gender is taken account of in the calculation of risk levels initially.

3.4.2 Heavy Drinking Sessions

A heavy drinking session was defined as having more than five drinks in a row. Half of the drinkers (48%) reported that they had had a heavy drinking session of more than five drinks in the last fortnight. Some drinkers (41%) reported that they had had a heavy drinking session up to and including four times in the last fortnight, while few (7%) had done so more than four times. Those who had done so up to four times in the last fortnight were classified as having few heavy drinking sessions, whereas those who had done so four or more times were classified as having frequent heavy drinking sessions. Figure 13 shows the frequency of heavy drinking sessions in the alcohol drinkers.

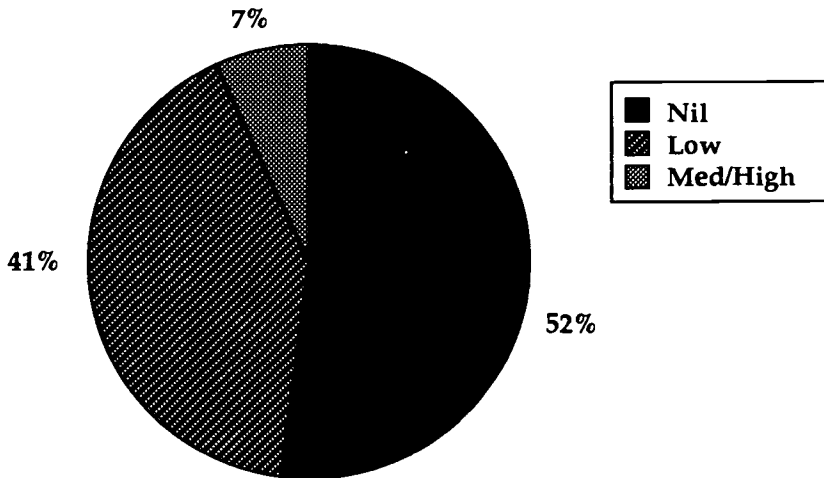


FIGURE 13

Frequency of Heavy Drinking Sessions

Those who had more heavy drinking sessions were more likely to be male ($p = 0.0002$), single ($p = 0.02$), youngest children ($p = 0.005$), born in Australia ($p = 0.007$), and enrolled in ITAFE ($p = 0.01$). They were also more likely to have a father born in the UK or Australia ($p = 0.02$), although this was true only for the 18-25 year olds. They were also more likely to have step-siblings ($p = 0.048$). They were also more likely to have never been married, although this was only true for the oldest group ($p = 0.02$). They also went out more nights for fun ($p = 0.002$), although this relationship was only significant for the 26-40 year olds and high income group. The older drinkers who had heavy drinking sessions were beer drinkers ($p = 0.007$). As might be expected, drinkers who had more heavy drinking sessions also experienced more psychosocial effects from alcohol ($p = 0.001$) and more physical effects ($p = 0.0001$). Only very few (4%) reported missing classes in the last month.

3.5 Effects of Alcohol

Most drinkers (73%) reported no effects of alcohol in the last month, while one-quarter (27%) had some psychosocial effects such as aggression or mood changes (10%), or trouble with friends (6%). Only very few (4%) reported missing classes in the last month. Persons who suffered psychosocial effects were more likely to be in the moderate to high risk group and have heavy drinking sessions as previously reported, to be beer drinkers ($p = 0.02$), and have a mother born in Australia or in Europe ($p = .046$) or a father born in Australia ($p = 0.04$).

One-fifth of the drinkers reported physical effects such as a hangover (25%), injury (10%), or vomiting (6%). Six students reported blacking out within the last month.

Gender was not significant for most of these effects of drinking; however, male drinkers (16%) were significantly more likely than female drinkers (2%) to have had trouble with the law as a result of their drinking ($p=0.0001$). Persons reporting physical effects were more likely to be in the high risk group and to have more heavy drinking sessions as previously reported, to be under 25 years of age ($p=0.0007$), never married ($p=0.003$) and to be in the ITAFE trade and technology group ($p=0.04$). Physical and psychosocial effects of alcohol were linked ($p=0.0001$) which is not surprising.

As far as the family was concerned, one-third of all subjects reported that members of their family were aggressive when drinking, 11% reported that family members had had trouble with friends, 10% had had injuries, and 12% had been in trouble with the law. Most (70%) did not regard anyone in the family as a problem drinker, while some regarded their father (16%), their brother or sister (11%), their spouse (5%) or their mother (3%) as problem drinkers. Females were more likely than males to regard a sibling as a problem drinker ($p=0.02$).

3.6 Smoking Behaviour

3.6.1 Description of Smoking in the Whole Sample

Figure 14 shows the distribution of smoking in the sample.

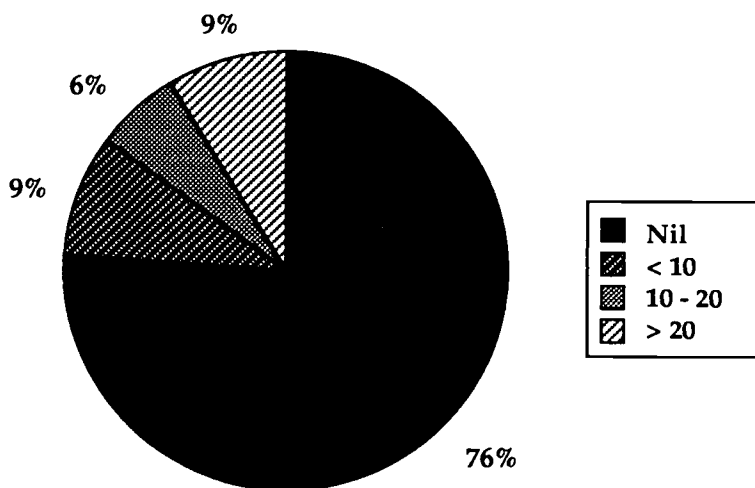


FIGURE 14

Distribution of Smoking Behaviour in Sample

Figure 14 shows that only approximately one-quarter of students (24%) at NTU smoked cigarettes and very few (9%) were heavy smokers.

About one-quarter (28%) of the sample reported that they had never smoked, not even a few puffs of one cigarette. About one-fifth of the subjects (21%) had smoked fewer than 10 cigarettes in their lives while about half (51%) had smoked more than 10 cigarettes. About one-third were ex-smokers.

A person who had smoked in the last week was classified as a smoker. By this criterion, one-quarter (24%) were smokers. Of these, about one-quarter (29%) had smoked less than 1 year, while one-fifth (21%) had smoked for 2-5 years, one-fifth (22%) had smoked for 6-10 years and one-quarter (28%) had smoked for more than 10 years.

The majority of smokers had a relative who smoked. Most frequently it was the father (75%), while about half (53%) reported a mother who smoked, a quarter reported a spouse (28%) and about two thirds (66%) reported a sibling who smoked. Smokers were more likely than non-smokers to have a father ($p = 0.01$), a mother ($p = 0.02$) or a sibling ($p = 0.0001$) who smoked.

3.6.2 Who Smokes?

The typical smoker was more likely to be younger, to earn between \$50-\$200 per week, to live in rental accommodation, and not to be married.

There was an effect for age in the whole sample, with more 18-25 year-olds and more 26-40 year-olds and fewer over 40's smoking than expected. However, this effect was contributed by the females ($p = 0.008$) and was not significant for males.

There was no significant difference overall for males (21%) and females (25%) smoking, so hypothesis 6 was supported. However, there were gender-based differences for other variables such as influence of the family. Females were influenced by parental smoking. Females were more likely to smoke if the mother smoked ($p = 0.01$), if the father smoked ($p = 0.03$), or a sibling smoked ($p = 0.0005$). While male smokers were no more likely to smoke if they had a parent who smoked, they were more likely to smoke if a sibling smoked ($p = 0.047$). There were also age-based gender differences for smoking, with a higher percentage of females in the 18-24 year old group smoking (35%) than in the 25-40 year-olds (30%) and the over 40's (8%). Figure 15 shows the differences for gender when controlled for age.

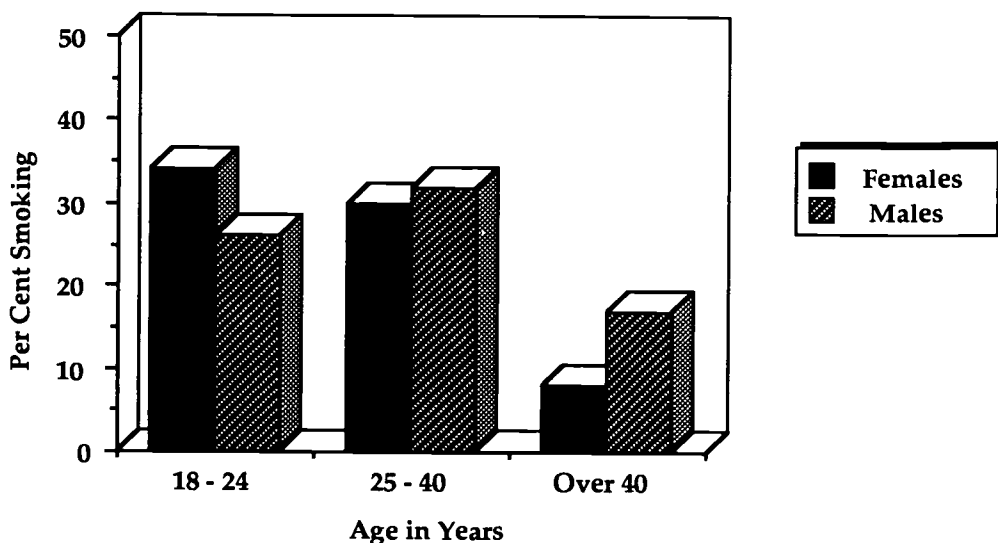


FIGURE 15

Age-based Gender Differences for Smoking

Figure 15 shows that there was a higher percentage of females than males smoking in the under 25 year old age group, a higher percentage of males than females smoking in the over-40 age group, and little difference in the 25-40's age group.

Marital status was related to smoking behaviour. Persons who were married were less likely to be smokers than those who were divorced, separated, in a defacto relationship or never married ($p = 0.0007$).

Income was related to smoking behaviour in that persons who were in the \$50-\$200 per week income bracket were more likely to smoke than those in the over \$200 income bracket ($p = 0.043$).

Accommodation was related to smoking behaviour in that persons who were in rented accommodation were more likely to smoke than persons who owned their own home or lived with their parents $p = 0.005$.

3.6.3 Levels of Smoking

The smokers comprised light smokers who had had 10 or fewer cigarettes in the last day, moderate smokers, who had had 10-20 cigarettes in the last day and heavy smokers who had had more than 20 in the last day. Figure 16 shows the distribution of light, moderate and heavy smokers.

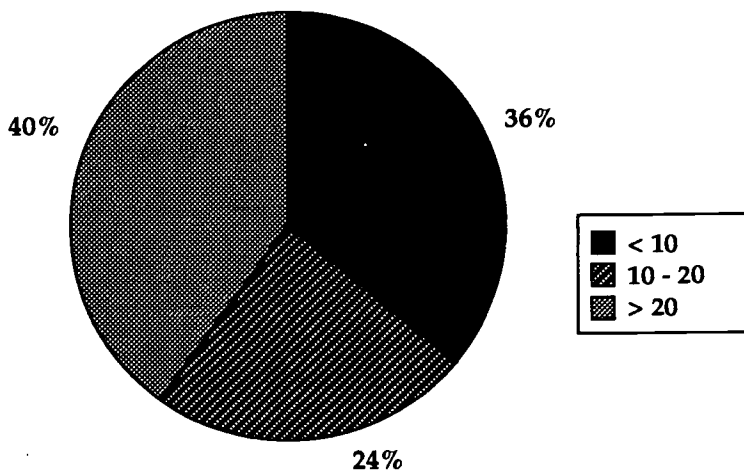


FIGURE 16

Amount Smoked per Day

In terms of percentages of the smokers, 36% were light smokers, 24% were moderate smokers and 40% were heavy smokers. None of the variables that were related to whether or not a person smoked was related to the amount smoked i.e. whether the person was a light, or medium/heavy smoker, so hypotheses 7 and 8 were not supported.

There were very few over 25 year-olds who smoked in the sample, but for the under 25's there was a difference in amount smoked for males and females. Figure 17 shows this relationship.

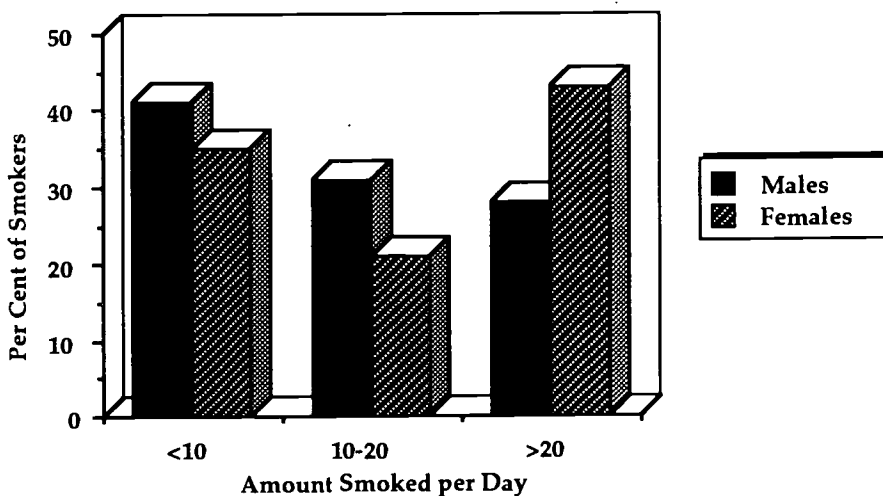


FIGURE 17

Amount Smoked per Day, Males and Females Under 25

Figure 17 shows that in the under 25 year-old smokers, almost half of the males were smoking fewer than 10 cigarettes per day, while almost half of the females were smoking more than 20 cigarettes per day. Thus, in this age group, the females were heavier smokers than the males. While this difference was not statistically significant, it represents an alarming trend in the data.

3.7 Smoking and Drinking

There was a positive correlation between number of cigarettes smoked per day and number of drinks per day ($r = 0.3$). There was also a positive correlation between number of cigarettes smoked per day and number of times more than five alcoholic drinks were consumed on one occasion ($r = 0.27$).

3.8 Summary

This study has shown that the majority of students drink alcohol, but most drink fewer than 3 standard drinks per day and are in the low risk group, and very few are in the moderate/high risk groups. Beer was the most frequently consumed beverage in this group. Males prefer beer and females prefer wine. Most drinking was done on the weekend, and at home with family or friends. Most students purchase alcohol off licence at the supermarket or bottle shop. Risk levels for alcohol were related to position in the family father's birthplace, and type of drink preferred. Persons in the higher risk groups were more likely to suffer from effects of alcohol. Most students did not smoke cigarettes and few were heavy smokers. Age, marital status, income and accommodation were related to whether or not a person smoked, and smoking was related to drinking.

CHAPTER IV

DISCUSSION

4.1 Introduction

This study has shown that the students at NTU generally have similar drinking patterns to other students in Australia. Ethnic origins, position in the family and type of drink preferred were related to drinking patterns. Marital status, income, accommodation and age were related to whether or not a student smoked.

4.2 Drinking Patterns

Most students have drunk alcoholic beverages and began to drink before entering university. The high proportion of students who have ever drunk alcohol was consistent with the findings of Adams (1979), Engs (1982), Wilks (1986), and O'Callaghan *et al.* (1990). Only about two-thirds of the students regularly drank alcohol. This finding was similar to that of Neil (1978) and Engs (1982), and lower than that of Adams (1979) and Wilks (1986). This study found that compared with non-drinkers, drinkers were older, born in Australia and the UK, youngest or middle children, studying part-time, employed with higher incomes, living in their own homes and going out more nights for fun. Most of the previous studies on students have not explored the differences between drinkers and abstainers, preferring to concentrate on levels of drinking.

The finding that beer was the most consumed beverage is consistent with the findings of Neil (1978) and O'Callaghan *et al.* (1990). This finding may be related to the fact that males drink more heavily than females and males prefer beer. Beer and wine were the beverages most often preferred, with males choosing to drink beer and females wine. This finding supports the findings of Wilks (1986), Prill and Newman (1987), and O'Callaghan *et al.* (1990).

Most students purchased alcohol at the off-licence stores and drank at the weekend at home with family or friends. The NTU students tended to drink at home with family and friends. This does not support the findings of Prill and Newman (1987). Few reported drinking at a restaurant, perhaps because students tend to be on a tight budget. More students purchased their liquor 'off licence' than 'on licence'. The finding that students patronized the off licence outlets also probably reflects limited funds available.

The NTU students followed a pattern of more people drinking and drinking more heavily on Friday and Saturday nights. When it comes to Sundays, however, the student levels dropped to about half that of the weekend. Perhaps the students were conscious of having to attend classes on Mondays.

4.3 Risk Levels and Frequent Heavy Drinking Sessions.

4.3.1 Risk Levels

Most drinkers drank fewer than three drinks per day, so not many were at risk from alcohol drinking in this sample. Level of risk was related to father's birthplace, type of drink preferred and birth order.

This study does not support the findings of Neil (1978), who showed that the UK students were heavier drinkers than the Australian students, although that trend was found in the data. However, Neil's study compared students in two specific localities, while this study measured differences according to birthplace. The Asian students were almost never at risk from drinking alcohol.

The link between birth order and risk for alcohol has not been explored by other studies on Australians and alcohol drinking relevant to this study. The finding that firstborn or only children were less likely to be at risk may be because they are raised to be more responsible.

The finding that beer drinkers were likely to be in the high risk group is interesting. Although type of drink was related to gender, gender was not related to risk levels. The finding that the drinkers more at risk drank beer was consistent with the finding of Wilks (1986) that the heavier drinkers drink beer.

4.3.2 Frequent Heavy Drinking Sessions

This study has shown that not all persons at risk have heavy drinking sessions but that those who do are more likely to be at risk. The ethnic link shows that males born in Australia were most likely to indulge in heavy drinking sessions, perhaps because of the male "mateship" ethic. This finding supports the findings of Prill and Newman (1987). In this sample, the ITAFE students were more likely to indulge in heavy drinking sessions.

4.4 Effects of Alcohol

Those students who reported psycho-social effects of alcohol were more likely to be in the high risk groups, to have heavy drinking sessions and to be beer drinkers,

which were linked together. There was also a link to ethnic origin as those with fathers born in Australia were more likely to suffer these effects. Males were more likely to have trouble with the law as a result of their drinking. Physical and psycho-social effects of alcohol were linked, which is not surprising. Students reporting physical effects were very similar to those reporting psycho-social effects in terms of risk group and heavy drinking sessions, but physical effects were also linked to age and marital status which were linked together, and to being in the ITAFE trade and technology group. The finding that effects were not gender linked does not support the findings of Neil (1978) and Prill and Newman (1987) that males have more physical effects than females, but perhaps it has become more acceptable for females to admit to effects of alcohol. However, this study did not ask about weekend drinking bouts, and confined the data to the month prior to the study rather than asking about whether the subjects had ever experienced the effects.

The magnitude of the problem of effects of alcohol on university attendance appears to be small, since only a small percentage reported missing classes due to alcohol. However, even a few hundred students missing classes from the effects of drinking alcohol is cause for concern and alcohol education programs may help rectify this problem.

A thread running through the findings for alcohol is the link between ethnicity and alcohol drinking. Birthplace and parental birthplace were linked to whether a student drinks alcohol, heavy drinking sessions and effects of alcohol. The student's own birthplace was related to whether or not a student drank alcohol or had heavy drinking sessions. Students of Asian extraction were less likely to drink, to have heavy drinking sessions, and to suffer the psycho-social effects of alcohol than students of Australian extraction. Furthermore, Asian students who were born in Australia were significantly more likely to be at risk than those born in Asia, which suggests that the Australian culture may be influencing them. There were no significant differences in extent of drinking for Asian-born males and females, which suggests that it was a general cultural effect rather than gender-linked.

Gender was important in terms of actual amount of alcohol drunk but not for risk levels as men can safely drink more alcohol than women because of higher metabolic activity related to greater hepatic cell mass (NH&MRC, 1992). Male students in this study drank almost twice as much alcohol per day on average as female students. A higher proportion of males than females normally drank, males drank more drinks per day than females and were more likely to have heavy drinking sessions. The finding that a higher percentage of males than females drank alcoholic beverages is consistent with the findings of other studies of tertiary students (Neil 1978, Adams 1979, Wilks 1986, and Prill and Newman,

1987). The findings did not support Eng's; however, Eng's sample was not representative of university students. The finding that more males were heavier drinkers and more females were light drinkers agrees with Neil (1978), Adams (1979), Eng (1982), Wilks (1986) Prill and Newman (1987), O'Callaghan *et al.* (1990), and Bush (1992). However, these studies did not address risk levels. Gender did not affect risk levels, primarily because, since males can drink more than females without running a greater risk, they would have to drink a lot more than females to show a difference in risk levels.

This study also showed that among the sample, males preferred beer and females preferred wine. This is consistent with the findings of Neil (1978), Eng (1982), Wilks (1986), and O'Callaghan *et al.* for university students. The finding that females prefer wine was not consistent with that of Neil (1978), Prill and Newman (1987), or O'Callaghan *et al.* (1990) who found that females preferred spirits rather than wine.

4.5 Smoking

In the sample, approximately one-quarter of students smoked. This is consistent with the findings of Adams (1979). The finding that 24% of ITAFE students smoked was similar to Prill and Newman's finding that 29% smoked.

This study has shown that age, marital status, income and accommodation are associated with smoking versus non-smoking, but none of these was related to amount smoked within the smoking group. This does not support the finding of Prill and Newman (1987) that for smokers income is linked to amount smoked.

There were some relationships for gender. Female smoking was more linked to a family member smoking than was male smoking, although the latter was linked to a sibling smoking. A higher percentage of younger females than males smoke and younger females smoke more heavily than their male counterparts.

The finding that the amount of smoking was correlated with the amount of drinking supports the finding of Adams (1979).

4.6 Implications

Since this study was limited to NTU students, generalizations should not be made beyond the Northern Territory University. However, this study did survey a stratified random sample and had a fairly good return rate, so the findings may be typical of NTU students. The methodology of this study included a more representative sample than those of Neil (1978), Wilks (1986), Bush (1990), or O'Callaghan *et al.* (1990), so the findings may have more external validity than theirs.

The findings of this study suggest that NTU students are not a great deal different with respect to drinking than other tertiary students in Australia. The majority of students were either non-drinkers or light drinkers, and few effects from alcohol were reported. These findings suggest that there is not on the whole a serious drinking problem at the University, but that there is a small group of heavy drinkers that could benefit from alcohol education. Since those at the highest risk levels tended to be beer-drinkers of Australian or UK extraction, any health education programs could be more profitably directed at that group. This is happening on a Territory-wide basis with the 'lighten up' commercials which feature that group. It might also be useful to incorporate alcohol education in the ITAFE curricula, especially for students in Mechanical Trades, Vocational Studies and General Studies. Study blocks for trade students would be a good place to start.

The fairly low rates of drinking among students may possibly be affected by the fact that at the time of the study, there was no outlet on campus at which students could buy and consume alcoholic drinks. This is in contrast to most universities where pubs on campus are the norm. Since the time of data collection, a student pub has been installed. Further research could investigate whether this has had any effect on student drinking patterns.

The ethnic and gender differences seem to be among the most striking results on alcohol drinking for this study. Further research using a more in-depth method such as interviews may help to identify why the drinkers at higher risk have Australian-born fathers and why males are more likely to indulge in heavy drinking sessions than females.

While the rates for smoking were fairly low, any smoking is placing people at risk from the effects of smoking and thus smokers could benefit from anti-smoking campaigns. Even if taking up smoking is determined at an early age, the presence of smoking in the university population should be addressed by suitable health promotion. Health promotion could be directed to the younger students. While this study also found that non-smokers were unmarried lower income earners, and lived in rented accommodation, these variables were shown by chi-square analysis to be associated with the age of the students. The younger group as a target for health promotion would yield the highest dividends in terms of prevention of effects of smoking as the earlier they quit smoking, the less likely they are to suffer from conditions that result from accumulation of damage from smoking. The trend for younger females to be smoking in greater numbers and to smoke more heavily than males suggests that they will be at greater risk in later life and that there will be an increase in costs to the individual and the community from health problems associated with females smoking. Thus while all students

should be targeted for anti-smoking campaigns, younger students and females should receive some special emphasis.

In summary, it is recommended that further research be done to elucidate the effects of birthplace for alcohol and smoking. It is also recommended that anti-alcohol and anti-smoking health promotion efforts be directed at all students who smoke cigarettes and who are at moderate to high risk from alcohol.

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APPENDIX
QUESTIONNAIRE

QUESTIONNAIRE
ALCOHOL AND TOBACCO USE AT THE NTU

(A) PERSONAL INFORMATION

1. What sex are you?

Male Female

2. What is your age?

18-20 31-40

21-25 41-49

26-30 50 or over

3. What is your position in the family?

Only child

First born with brothers and/or sisters

Between oldest and youngest

Youngest

4. Does your family include step brothers/sisters?

Yes No

5. Where were you and your parents born? (tick only one box in each column)

	Yourself	Your Mother	Your Father
Australia	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
New Zealand	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
England, Ireland, Scotland or Wales	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Europe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
North America	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Asia	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other countries	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I don't know	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6. Do you consider yourself to be Aboriginal or Torres Strait Islander?

Yes No

7. (a) What language do you speak at home?

English only Another language English & another language

(b) If you regularly speak a language other than English at home, please write which language.

8. What is your marital status? (tick more than one if applicable)

- Married
- Divorced/separated
- In partnership other than marriage
- Never married

(B) EDUCATION

9. What Faculty or School at NTU are you enrolled in?

Higher education - Faculty

ITAFE - School

- | | |
|------------------------------------|--|
| <input type="checkbox"/> Arts | <input type="checkbox"/> Business |
| <input type="checkbox"/> Business | <input type="checkbox"/> Construction |
| <input type="checkbox"/> Education | <input type="checkbox"/> Electrical Trades |
| <input type="checkbox"/> Science | <input type="checkbox"/> General Studies |
| | <input type="checkbox"/> Mechanical Trades |
| | <input type="checkbox"/> Technology |
| | <input type="checkbox"/> Tourism & Hospitality |
| | <input type="checkbox"/> Vocational Studies |

10. Is your enrolment:

Full Time Part Time

11. What is the level of course in which you are currently enrolled?

- Certificate Honours year
- Associate diploma Graduate diploma
- Undergraduate diploma Masters degree
- Undergraduate degree Ph.D

12. If your answer to question 11 was undergraduate diploma or undergraduate degree, what equivalent full-time year of the course are you enrolled in?

- First Second Third Fourth

13. While you are attending NTU in what kind of accommodation do you live?

- University House, Myilly Point Own home
- University House, Casuarina At home with parents
- Rented accommodation

(C) EMPLOYMENT

14. Are you employed:

- Full Time Part Time Casual Not Employed

15. In a normal week, including the weekend, how much money do you get from a job or other work?

- | | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| None/have
no job | Under
\$50 | \$51-100 | \$101-200 | \$201-300 | Over
\$300 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

16. In a normal week, including the weekend, how much money do you get from other sources eg allowance from parents?

- | | | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| None | Under
\$25 | \$25-50 | \$51-75 | \$76-100 | \$101-200 | Over
\$200 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

17. In a normal week, including the weekend, on how many nights do you go out for fun? (Tick only one box)

None	1	2	3	4	5	6	7
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(D) ALCOHOL USE

18. Have you ever had one or more alcoholic drinks, such as beer, wine, spirits, or wine coolers? (Do not count sips or tastes)

No never Yes

19. Did you drink alcohol before enrolling at university?

No never Yes

20. Which of the following do you usually drink? (You may tick more than one)

<input type="checkbox"/> Light beer, below 2.5%	<input type="checkbox"/> Champagne
<input type="checkbox"/> Light beer, above 2.5%	<input type="checkbox"/> Alcoholic cider
<input type="checkbox"/> Ordinary beer	<input type="checkbox"/> Spirits
<input type="checkbox"/> Wine	<input type="checkbox"/> Liquers
<input type="checkbox"/> Wine coolers	

21. On a day when you have alcoholic drinks, how many drinks do you usually have? (A drink = one beer/cider, or one standard glass of wine/champagne/wine cooler, or one nip of spirits/liqueur). (Tick only one box)

I never drink	1	2	3	4	5	6	7	8	9 or more
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

22. Think back over the last two weeks, including weekends. How many times have you had five or more alcoholic drinks in a row? That is in one drinking session. (Tick only one box)

None	Once	Twice	3 times	4 times	5 times	6 times	7 or more
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

23. How many drinks did you have on each day of the last week? If last week was not a typical week, please answer as if it were. (Tick only one box in each line)

	None	1	2	3	4	5	6	7	8	9 or more
Mon.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tues.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Thurs.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fri.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sat.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sun.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

24. Here is a list of places where people drink alcohol. Please show which one you most often have had a drink at in the past four weeks

- | | |
|---|--|
| <input type="checkbox"/> I haven't had a drink in the past four weeks | <input type="checkbox"/> Dance/Disco |
| <input type="checkbox"/> In my home with family or friends | <input type="checkbox"/> Beach |
| <input type="checkbox"/> Sporting event or activity | <input type="checkbox"/> Private party |
| <input type="checkbox"/> At home alone | <input type="checkbox"/> In a hotel |
| <input type="checkbox"/> In the home of my friends | <input type="checkbox"/> University |
| <input type="checkbox"/> In a car/street/open air | <input type="checkbox"/> In a club |
| <input type="checkbox"/> Restaurant | |

25. If you bought alcohol in the past four weeks, where did you buy it?

- | | | |
|--------------------------------------|--------------------------------------|-------------------------------|
| <input type="checkbox"/> Hotel | <input type="checkbox"/> Restaurant | <input type="checkbox"/> Club |
| <input type="checkbox"/> Bottle shop | <input type="checkbox"/> Supermarket | |

26. Have you ever had the following effects from alcohol?

- | | |
|--|--|
| <input type="checkbox"/> Being aggressive/mood changes | <input type="checkbox"/> Trouble with friends/neighbours |
| <input type="checkbox"/> An injury | <input type="checkbox"/> None of these |
| <input type="checkbox"/> Trouble with the law | |

27. How many times , if ever, has drinking caused you to vomit?
(Tick only one box in each line)

	None	Once or twice	3-5 times	6-9 times	10 or more times
a) In the last 7 days	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) In the last 4 weeks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

28. How many times, if ever, have you had a hangover?
(Tick only one box in each line)

	None	Once or twice	3-5 times	6-9 times	10 or more times
a) In the last 7 days	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) In the last 4 weeks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

29. How many times, if ever, has drinking caused you to miss one or more classes/lectures? (Tick only one box in each line)

	None	Once or twice	3-5 times	6-9 times	10 or more times
a) In the last 7 days	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) In the last 4 weeks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

30. How many times , if ever, has drinking caused you to black out?
(Tick only one box in each line)

	None	Once or twice	3-5 times	6-9 times	10 or more times
a) In the last 7 days	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) In the last 4 weeks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

31. Has any member of your family ever had the following effects from alcohol?

- Being aggressive/mood changes Trouble with the law
 Trouble with friends or neighbours None of these
 An injury

32. Do you consider that any of the following members of your family were problem drinkers/alcoholics?

- | | |
|--|---|
| <input type="checkbox"/> No one | <input type="checkbox"/> Father |
| <input type="checkbox"/> Spouse or partner | <input type="checkbox"/> Brother/sister |
| <input type="checkbox"/> Mother | <input type="checkbox"/> Other, please specify..... |

33. Which of the following would influence you to drink alcohol?

	Strongly Disagree	Disagree	Don't know	Agree	Strongly agree
a) The weather	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
a) Friends drinking it	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
a) Family drinking it	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
a) Availability of alcohol	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
a) Relief of tension	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
a) Freedom at University	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(E) CIGARETTE SMOKING

34. Have you ever smoked even part of a cigarette? (Tick only one box)

- No (not even a few puffs of one cigarette)
- Yes, I have smoked fewer than 10 cigarettes in my life
- Yes, I have smoked more than 10 cigarettes in my life

35. How long have you smoked?

Less than 1 year	1-2 years	2-5 years	5-10 years	More than 10 years
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

36. If you are an ex-smoker how long is it since you smoked a cigarette?

Less than 1 year	1-2 years	2-5 years	5-10 years	More than 10 years
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

37. Have you smoked any cigarettes in the last month?

Not even a few puffs Yes

38. How many cigarettes per day did you smoke?

	None	1-2	3-5	6-9	10-19	20-39	40 or more
a) Yesterday	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
a) In the last 7 days	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
a) In the last 4 weeks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

39. Who in your family has ever been a smoker?

- No one Father
- Spouse or partner Brother/sister
- Mother Other, please specify.....

Thank you for your co-operation



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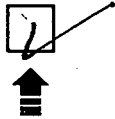
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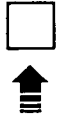
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