

Alcohol use among college students: A study of peer influence and overestimation of social norm

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ABSTRACT

The aim of this dissertation was to find a relationship between alcohol use such as excessive alcohol use and peer influence among Dublin Business School college students. Quantitative survey design was used and questionnaires were used for data collection. Research sample consisted of 209 participants. A very significant relationship was found between excessive alcohol use and peer influence. Differences for variables age, gender and ethnic background were determined. Results showed youngest age group with highest levels of alcohol use and peer influence, there were no significant gender differences in this group. Irish Caucasian ethnicity showed significantly higher level of alcohol use and peer influence compared to African ethnicity. Findings suggests the more alcohol college students consume the more influenced they are by their peers.

Keywords: Alcohol use, young adults, college students, peer influence, gender, social norms.

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INTRODUCTION

The aim of this dissertation is to find the relationship between level of alcohol use such as excessive alcohol use and peer influence. Alcohol use is a widely discussed topic. Alcohol use will be presented in a general view from figures shown World Wide from WHO (2011) to a closer view of Ireland and alcohol use shown in Survey of Lifestyle, Attitudes and Nutrition (SLAN) Survey (Morgan et al, 2009). Much of the literature found focuses on problems related to alcohol such as alcohol abuse, violence, criminal behaviour and health risks. Seen in the study Wechsler, Dowdall, Davenport and Castillo (1995) evidence clearly states that binge drinking is associated with higher risks of acute health risks such as serious injury, unsafe sex, assault and aggressive behaviour. This dissertation however will show a somewhat different approach in finding the level of alcohol use among college students, often excessive use depending on level of peer influence and what difference results will show for different gender, age and ethnic groups. Age groups should be divided into different close stages as different levels of perceptions were found among the different ages (Veliz and Granfield, 2008). Berkowitz (1990; as cited in Wheeler, 2010) put forward peer influence as the most important factor leading to excessive drinking. Research on peer influence has shown that individuals with peers who drink are more likely to begin drinking and those who binge drink are more likely to have friends who drink (Reifman et al, 1998; Manski, 1995; Moffitt, 2001; as cited in Wheeler, 2010).

Gender will be further researched, a majority of the previous studies show that young males were showing higher levels of alcohol use however two studies show that women tend to keep up with their male counterparts in the level of alcohol use and frequency of use (Cahill & Byrne, 2010; Young, Morales, McCabe, Boyd & D'Arcy, 2004).

Dublin Business School is a multicultural college with students from different ethnic backgrounds, it will be followed how differences in findings between different ethnic groups can be seen and may point in the direction of different upbringing as well as cultural and traditional differences. As argued by Pugh and Brenna (2007) African American young adults are seen to use lower levels of alcohol and marijuana than seen in Americans and South Americans. This is showed to relate to cultural norms and values with the particular ethnic group.

Literature reviewed for this dissertation show different levels of use from a global level to Ireland. Ireland for many is known for its extensive pub culture which can be seen in a recent publication by European Commission (2010) the prevalence of frequent binge drinking is highest in Ireland 44 %. This research aims to extend findings from previous research as well as finding gaps in the existing research that could be applied to an Irish College environment (Dublin Business School). Interest in the topic and the purpose of this dissertation can be seen in the widely discussed area of alcohol use in Ireland. Peer pressure is a commonly known phrase among groups of adolescents, however the level of peer influence and how the drinking norm among college students in an Irish College environment is perceived will be argued. Arguments will be shown whether students overestimate their peer group's alcohol use and how this will impact their own alcohol use. Reviewed literature from previous studies will show the level of impact on students own alcohol use and peer alcohol use, shown in various studies that can be followed. Students tend to overestimate the extent to which their peers use alcohol and see alcohol as desirable, often their own levels of alcohol use increase and drinking continues to be seen as an acceptable behaviour (Prentice & Miller 1993; as cited in Crawford & Novak, 2010).

LITERATURE REVIEW

General Overview Alcohol Use

As shown in a World Health Organisation (WHO) Publication, in 2005 worldwide consumption of alcohol was equal to 6.13 litres of pure alcohol consumed per person aged 15 years and older WHO (2011). It shows in a Global World Health Organisation Survey on Alcohol and Health conducted in 2008, a five year drinking trend was followed for 18 – 25 year olds. Out of 82 responding countries 80% showed an increase, 11% a decrease, 6% were stable and 12% showed inconclusive trends. Further shown in WHO publication by McAllister and Lancet (WHO, 2011) harmful drinking patterns such as drinking to intoxication and binge drinking seem to be on a rise among adolescent and young adults.

In a Publication by the European Commission it shows that young people are far more likely to drink 5 or more drinks once a week than older people aged over 55, this puts younger people at greater risk of the harmful effects related to binge drinking. Binge drinking is defined as having 5 drinks or more on at least one occasion. Alcohol consumption levels are highest among the youngest age group (between 15-24) and regarding measured occupational groups the highest percentage of respondents who usually have 3-4 or more drinks per occasion are students at 46% (European Commission, 2010). In a country by country analysis, a variation in the frequency of binge drinking was shown to be present between EU countries. Frequent binge drinking was seen to be highest in Ireland at 44%, Romania 39%, Germany and Austria showed 36% and with a great level also in the United Kingdom, Spain and Greece at 34% (European Commission, 2010).

It is outlined in SLAN 2007 survey approximately four in five Irish adults 81% reported drinking alcohol. The proportion of non-drinkers 19% is lower than the average in Europe 25% (Morgan et al, 2009).

Definition - One Standard Drink

For this dissertation it is of importance for data collection sampling methods and further analysis to define the alcohol 'standard drink' measurement in Ireland. In the United Kingdom the measure used is called a 'unit of alcohol'. A UK unit of alcohol is equal to 8ml of pure alcohol however the UK unit of alcohol measure was used in Ireland and did not reflect the typical strength of serving measure of drinks served in Ireland. Such as; a single measure used for spirits is larger in Ireland. A pilot study undertaken in Ireland in 2000 showed a typical drink in Ireland was equal to 10 ml of pure alcohol and called a 'standard drink' reflecting the alcohol content and typical serving sizes in Ireland (Hope, 2009). In data collection by questionnaire, participants are answering for one 'standard drink' Ireland defined as a half pint of beer (4.3%) 9.8 ml of pure alcohol, half pint of cider (4.5%) 10.2 ml of pure alcohol, one small glass of wine 100 ml (12.5%) 10 ml of pure alcohol and one single measure of spirits (37.5%) 10.7 ml of pure alcohol (Hope, 2009).

Drinking Behaviour Young Adults

A College Lifestyle and Attitudinal National (CLAN) survey was conducted among undergraduate full-time students in twenty one colleges in Ireland (Hope, Dring & Dring, 2005). The reasons for students to use alcohol were for sociability, enjoyment and relaxation. Higher level of males chose sociability (71%) whereas higher proportion of females showed for enjoyment (74%). A similar study in a US College showed the majority of the participants (63%) considered themselves social drinkers (Fisher, Fried & Anushko, 2007). Further research shows that peer influence is a strong indicator of drinking behaviour in late adolescence. Two types of social influences have been determined; 'passive' and 'active'. Active social influences are seen where a substance has been offered to be used, such as being bought a drink and passive social influences relate to an individual's perception and

interpretation of others drinking pattern (Graham, Marks & Hansen 1991; Oostveen, Knibbe & De Vries 1996; as cited in Wood, Read, Mitchell & Brand, 2004).

Alcohol Use Age, Gender & Ethnicity

An early study of college problem drinking was conducted between year 1975 – 1985 Berkowitz and Perkins (1986) showed that problem drinkers were identified as heavy drinkers if involved in weekly drinking in excess of 5 or more drinks per occasion. Differences were reported between male and female where males were typically drinking more excessively than women. Factsheet for Alcohol Concern (2011) in the United Kingdom stated that men of age group 16 – 24 are the heaviest drinking group of the population whereas for young women alcohol consumption tend to peak in the late teenage years. It further states that alcohol consumption declines with steady relationships, parenthood and financial responsibilities (Alcohol Concern, 2011). Further shown in SLAN 2007 survey, one quarter of young adults aged 18-29 said to drink nine or more standard drinks ('standard drink' per Ireland measure) on a typical drinking occasion (Morgan et al, 2009). In a sample of college students, drinking behaviours were closely examined among students aged 18 – 23 (majority of students in sample were this age) and high rates of binge drinking were found. In this group 51% were binge drinkers of which 55% were male and 48% female students. In the same study students of all-women's colleges reported significant increase in frequent binge drinking since the first surveys in 1993 which showed a narrowing of the gap in drinking behaviour between all-women's colleges and coeducational schools (Wechsler et al, 2002).

The study as mentioned in previous section of a US College showed that men reported significantly more binge drinking; 28% men versus 11% of women reported binge drinking six or more times a month (Fisher et al, 2007). However research was conducted among

students who attended a health centre of University College of Cork (UCC), it showed that female students appeared to be binge drinking as often as their male counterparts and drink similar measures of alcohol as males which is a concern as the recommended weekly maximum intake is lower for females than males, (not to exceed 14 units versus 21 units of alcohol per week) (Cahill & Byrne, 2010).

The CLAN survey in Ireland is showing different findings that binge drinking 'at least once a week' was reported by 61% of male students and 44% of female students (Hope et al, 2005). However it is important to take into account that findings of the study in UCC was a smaller sample of students who attended a health service and not a general sample of students in this college which show a difficulty in comparing the UCC findings to the CLAN survey (Drugnet Ireland, 2010).

A study of college students in US Michigan found there has been a dramatic increase in the rate of frequent binge drinking among undergraduate women which is a similar view of findings from Cahill & Byrne study. Women participated in focus groups spoke of college women attempted to 'drink like a guy'. Participants had noted the changes in gender roles originated from men finding it attractive when their female peers were able to match them in their drinking behaviour. Women who were frequent binge drinkers in college seem to have been the most vulnerable to men's opinions because of their choice to socialize with male peers over female peers (Young, Morales, McCabe, Boyd & D'Arcy, 2004). Furthermore findings from a large survey of US college students from several different colleges showed, gender differences indicated that almost as many female as male students were consuming alcohol but that males had a higher prevalence than females of more serious drinking behaviour such as binge drinking and daily drinking (Windle, 2003).

Argument followed by Substance Abuse and Mental Health Services Administration (SAMHSA) (2004; as cited in Pugh & Brenna, 2007) a growing evidence of ethnic differences was seen in the frequency of alcohol and marijuana use with lower rates of use among African American young adults than white Americans and South Americans. A study in a US Northeast college of mainly African American students argued the relationship between this ethnic identity and substance use may be explained by cultural norms. African American cultural values emphasize on strong kinship bonds and extended family relationships which offers the comfort of security and belonging (Boyd-Franklin, 2003; as cited in Pugh & Brenna, 2007). Therefore these young adults with a strong ethnic identity may be more able to cope with psychological stress and social challenges through methods rooted in cultural values and norms. With a strong support network they may find it easier to cope without the use of alcohol and drugs (Pugh & Brenna, 2007). Furthermore it was argued from findings in the large US survey of several colleges, ethnic group differences indicated the highest alcohol use among White Americans and African Americans showed substantially lower levels of use. These findings were consistent between multiple samples used for the study (Windle, 2003).

Social Norms and Alcohol Use

Perkins argued the primary intervention of social norms is to ‘communicate the truth about norms as per what the majority of students actually think and do’ (Dunnagan, Haynes, Linkenbach & Summers, 2007). Further put forward is the view shown by Maisto, Cary and Bradizza (1999; as cited in Wood, Read, Mitchell & Brand, 2004) social modelling refers to imitation of drinking behaviour of others such as close friends. Perceived norms relate to beliefs about how much and how often ‘typical’ college students drink as argued by (Baer et al. 1991; as cited in Wood et al, 2004). In addition perceptions of attitudes and behaviour that are approved of by others i.e. norms appear to be particularly influential with regards to

college drinking. Watching peers drink will inform the student how to use alcohol and how other students will react to different levels of alcohol use such as; approve or disapprove of the behaviour (Borsari & Carey, 2006). Furthermore is the argument shown that students tend to overestimate the extend of which their peers use alcohol and see alcohol as desirable, often their own levels of alcohol use increase which perpetuates the perception that drinking is an acceptable behaviour (Prentice & Miller 1993; as cited in Crawford & Novak, 2010).

Delamater and Myers (2007; as cited in Crawford & Novak, 2010) show that it is likely that the notion of abuse of alcohol is a legitimate student behaviour will worsen the relationship between perceived drinking norms and own personal use. Learning and adapting to roles for various social statuses is an important part of the socialisation process. Students who believe that drinking heavily is something students should do are especially vulnerable to the perception or misperception that alcohol abuse is a common and accepted behaviour on their campus. Found in this research the effect of Beliefs about Alcohol and the College Experience (BACE) on the relationship between general injunctive norms and drinking behaviour was shown. The perception of the norm that campus drinking was regarded as acceptable and desirable increased levels of alcohol use but only among students who associated the student role with alcohol abuse. Individuals who shared their view that drinking was acceptable at their school but rejected the notion that students are allowed to drink irresponsibly, showed the lowest level of alcohol consumption in this research (Crawford & Novak, 2010).

As concluded in Franca, Dautzenberg, Fallissard and Reynaud (2010) social norms of substance use including alcohol use and heavy episodic drinking is an important factor amongst students own personal use. Further shown overestimating these norms was

associated with increased levels of use which agrees with above argument by Prentice and Miller. Concluded in Franca et al, (2010) alcohol and heavy episodic drinkers are at higher risk of overestimating peer substance use norms. A possible explanation is shown that heavy substance users have a personal motivation for overestimating the norm. It allows them to justify their own use and deny it is a problem. An association has also been seen in students that are more prone to overestimate peer group norms are more likely to increase their own substance use in order to meet the perceived expected norm (Berkowitz, 2004; as cited in Franca et al, 2010).

A study conducted at a commuter College in US different peer crowds were identified among the students participating in the study, the students were then asked the perceived level of alcohol use within the different peer crowds. Other researchers as Baer et al (1991; as cited in Sessa, 2007) has focused in the typical student or the close friend in reviewing the role of perceived norms on student's own use of alcohol. The peer crowd may provide a more specific social reference group that could influence the individual behaviour. Students in own peer crowd (exception of Jocks and Loners) reported significantly more frequent use by others in their own crowd than their own individual alcohol use. Furthermore another study of college students, research evaluated perceptions of gender specific and gender non specific drinking norms. Findings demonstrated that both men and women overestimate the quantity and frequency of the drinking of their same-sex peers. In addition research showed perceived same-sex norms are more strongly associated with problematic drinking and are stronger predictors of alcohol consumption for women than men (Lewis & Neighbors, 2004).

Findings suggest similarly to previous findings, the perceived norms for alcohol use among students own peer crowds are greater than the frequency of self reported alcohol use.

Peer Influence and Alcohol use

A research amongst College Student in the US show findings supporting the notion that peer and parental factors show an important influence on the drinking behaviour and consequences of late adolescence just prior to entering college. Furthermore in particular parental permissiveness of alcohol use and parental monitoring may qualify peer influences on involvement in alcohol use (Wood et al, 2004). Alcohol Concern in United Kingdom (2011) argues young people frequently overestimate the level of alcohol use among peers and the approval of their friends around drinking alcohol. This perception is seen to play a role in determining the individuals own attitude and behaviour around alcohol. Further argued to agree with this is shown that misperceptions of alcohol use among college students do exist and that they are partially correlated with increased personal consumption (Borsari & Carey, 2001, 2003; Perkins, 2002; as cited in Franca et al, 2010).

A Report from an experimental research amongst undergraduate College students in Netherlands showed a correlation between peer drinking and observed drinking as significant. Participants with high drinking levels were more likely to socialise with a high drinking level peer group. Different personalities were examined in this research, it was found that agreeable personality (defined as making self not noticeable) adapt their drinking significantly easier than others when socializing in a high or low level drinking peer group. These results indicated that agreeable individuals were more susceptible to levels of peer influence than individuals scoring low on agreeableness measures (Schor, Bot & Engels, 2008).

Personality may play a part however a different view is argued by Hays and Oxley (1986; as cited in Borsari & Carey, 2006) where women express close friendship through physical and verbal affection whereas men express intimacy through shared activities with

friends. Social reinforcement from peers is noted to be greater for men than for women in drinking situations. Social drinking activities appear to be of importance and where men receive support from peers (Karwacki & Bradley, 1996; as cited in Borsari & Carey, 2006). Concluded in this US research showed alcohol appeared to be less involved in the development and to maintain quality peer relationships among women than men (Borsari & Carey, 2006). Furthermore it is concluded in a paper Delaney, Harmon and Wall (2007) for University College Dublin (UCD) the focus is on drinking behaviour of close friends affects the individuals drinking. Peer and sibling drinking had larger effects than parental drinking.

Areas for further research

In the research discussed earlier of US College students, it is noted that the survey did not unfortunately include gender differences. Where previous research had shown, females versus male participants compared to students in general influences the relationship between measures of injunctive norms of students alcohol use Neighbors et al. (2008; as cited in Crawford & Novak, 2010). Additional research is needed to assess the effects of drinking behaviour of gender specific measures of general norms across levels of beliefs of alcohol and the college experience (BACE) (Crawford & Novak, 2010). Gender differences are shown and some counterarguments were found, this dissertation will further develop gender differences and aim to find if males are drinking more excessively than women as argued by (Berkowitz & Perkins, 1986; Fisher et al, 2007; Hope et al, 2005). As pointed out in Veliz and Granfield (2008) the effect of age and how perceptions influence the level of alcohol use has not had enough attention. Drinking behaviour among young adults who were between 18 – 19 were the most influenced by their perceptions of the level of alcohol use in a week by a typical college student. Other age groups included in the research showed a weaker (20 – 22 year olds) or no relationship (23-24 year olds) regarding their perception of what a typical student drink in a week (Veliz & Granfield, 2008). This will be further discussed in the

discussions section of the dissertation. Further pointed out in the study of college students by Lewis and Neighbors (2004), limitations were seen where the sample consisted of students from a single university with very little ethnic diversity. Stated that it was unclear how results might have differed in a more ethnically diverse sample.

Purpose of Dissertation

Further in this dissertation it will take into account the findings from the literature reviewed which is aimed to find in this correlation research. What the level of alcohol use is depending on peer influence in Dublin Business School (DBS) Ireland. Differences will be measured within a sample of DBS students between gender, age group and ethnic background of the participants. Findings from data collection will also take into account these variables in the aim to find the relationship between alcohol use such as excessive use and peer influence. As concluded from the study of Veliz and Granfield (2008) age should be included and this dissertation will review different age groups similar to how their study had divided the age groups to see the differences between the particular age groups. It could be followed the need of further research in gender differences, where different research has show somewhat different findings such as men reporting higher level alcohol use than women (Fisher et al, 2007; Hope et al, 2005). The view that males tend to drink more than females has been challenged as well in the study of US college students where women showed similar drinking behaviour as their male counterparts (Young et al, 2004). It was necessary that focus groups used were to be followed up with further sample survey research. Additional larger surveys could further evaluate gender roles and excessive alcohol use among undergraduate women.

Peer influences is stated to be of importance in the literature reviewed for this dissertation, the purpose is to gain further understanding of the situation in Ireland as the majority of peer influence and social norms of alcohol use research show findings mainly from US or Europe.

Aim of this dissertation is whether findings from reviewed literature can be applied to an Irish College (DBS) environment. Ethnic background was added as a variable to this study to find further differences for level of alcohol use and relationship to peer influence. The level of peer influence and overestimation of social norms in alcohol use has not had the same level of focus in the Irish research reviewed. Added in the study Franca et al, (2010) was the notion that prevention programs should consider changing use perception where seen as overestimated. Findings from this dissertation could be further used in responsible drinking campaign in Ireland such as Drinkaware.ie.

METHOD

Materials

Materials for data collection for this dissertation have been chosen to suit this research project and quantitative research design. Choice of research design will be further outlined in the design section part of the method chapter. Questionnaires were chosen method for data collection in this dissertation. Materials for data collection were reviewed, for this correlation research study two different suitable questionnaires were found. As presented the aim of this dissertation is to find a correlation between alcohol use and peer influence among college students. Differences between age group, gender and between different ethnic groups will be shown in the research analysis. Questionnaires chosen had been used in previous research and previously tested for reliability and validity. To measure the level of alcohol use among participants being chosen as the sample of college students, questionnaire Alcohol Use Disorders Identification Test (AUDIT) (Appendix III) was used (Saunders, Aasland, Babor, de la Fuente & Grant, 1993). Scores range from 0 to 4 for questions in AUDIT questionnaire, where a level of 8 or more is associated with harmful or hazardous drinking. A score of 13 or more in women and 15 or more in men is likely to indicate alcohol dependency. A second questionnaire was used to measure level of peer influence, The Peer Influence Scale (Appendix II) which was adapted from the Perceived Sociocultural Pressure Scale. The Peer Influence Scale questionnaire was further adapted to suit this dissertation and to measure peer influence among college students and alcohol use. Adapted Peer Influence Scale questionnaire contained of 11 items concerned with how frequently participants encounter signals from peers to drink alcohol and furthermore the participants view of their friends drinking behaviour. Peer Influence Scale is scored on a 5-point Likert scale; (1 = Strongly Agree, 2 = Agree, 3 = Neither agree nor disagree, 4 = Disagree, 5 = Strongly Disagree). Scores range from 11 – 55 for Peer Influence low scores indicating more influence and higher

scores indicating less influence. For this dissertation higher scores indicating more influence and lower scores indicate less influence. For research analysis for this dissertation scores from Peer Influence Scale have been reverted to be the same positive scale scores as AUDIT questionnaire to further enable correlation analysis. Prior to data collection AUDIT questionnaire and amended Peer Influence Scale were put together as one questionnaire (Appendix I). Variables chosen to be measured were inserted in questionnaire, age, gender and ethnic background. Definition of one standard drink was included in the questionnaire as per definition presented previously in literature review of this dissertation (Hope, 2009). Questionnaire document was reviewed and approved by the Head of Social Science Research Projects and the Supervisor for this dissertation. Scores for participants participating in data collection will be used further in the research analysis and results section of this dissertation. Full AUDIT questionnaire and Peer Influence Scale questionnaire can be seen in dissertation (Appendix II; Appendix III).

Participants and procedure

Dublin Business School (DBS) Participants taking part in this research project were selected from a number of DBS faculties which were randomly chosen. Participation in the study was voluntary and completely confidential, which was clearly communicated to the students prior to handing out questionnaires. This can be further followed in the ethics part included in the method section. The sampling method used was stratified random sampling, strata based on college students from year 1, 2 and 3 and from different faculties Social Science, Business, Accounting and Law. Student classes were randomly selected between faculties and DBS lectures. Questionnaires were handed out in class to students in both evening and day time classes. Some limitations were seen where different year students were overlapping between classes/modules of different levels. Some faculties contacted prior to data collection did not allow students from other faculties than their own faculty to hand out

questionnaires in their classes. One class was missed as lecture was running over time and students were leaving, lectures for larger classes seemed more stressed than in smaller classes where a higher rate of participation was seen. One class just prior to lunch time had almost half the capacity than number of students communicated by the lecture. Another class in different faculty just prior to lunch time had almost all students attending. When organising a plan for data collection, the aim was to avoid handing out questionnaires in early morning classes to avoid missing data in any late arriving students or students who may have been skipping the first class. Handing out questionnaires late in the week was also avoided to the greatest extent possible where more students tend to go out drinking from mid week onwards. Several bars in Dublin have different promotions for students such as Dtwo student night with drink promotions on a Wednesday night (Dtwo Dublin, n.d.). For difference in age between participants, data was collected from students in classes from first, second and third year, full-time and part-time. As put forward in Babbie (2007) because age is related to college class, a sample stratified by class will be more representative in terms of age as well compared with an un-stratified sample. Data was collected from Bachelor degree students as well as Diploma students. A number of 221 DBS college students from different faculties were asked to fill in questionnaires. Approximately 12 questionnaires were not being filled or were incomplete these were excluded from the research project resulting in a final sample of 209 participants (N = 209). Sample showed an age group, with youngest participant Age 18 and oldest participant Age 55 (Mean = 27.67). Different ages were later separated into age groups, Age Group 18 - 23 (Young adulthood), 24 – 30 (Middle young adulthood), 31 – 55 (Adulthood). Largest Age Group was Young Adulthood 44.6%. Study sample consisted of Males (N = 77) and Females (N = 132). See further male and female participants in different age groups and ethnic group (Table 1 & 2).

Table 1 Gender and age groups of participants

Gender			
Male	N	Valid	77
Female	N	Valid	132

Age Groups					
		Frequency	Valid Percent	Number of Males (N)	Number of Females (N)
Valid	18 to 23 Young Adulthood	91	44.6	39	52
	24 to 30 Middle Young Adulthood	46	22.5	16	30
	31 to 55 Adulthood	67	32.8	21	46
	Total	204	100.0	76	128

Table 2 Ethnic background of participants

Ethnic Groups					
		Frequency	Valid Percent	Number of Males (N)	Number of Females (N)
Valid	European	7	3.8	3	4
	Irish Caucasian	133	72.7	50	83
	Other Ethnicity	10	5.5	5	5
	African	33	18.0	11	22
	Total	183	100.0	69	114

Different Ethnic Groups were included (Table 2). Largest ethnic group among participants was Irish Caucasian 72.7% per cent and African 18%. Some missing data was found for ethnic group, 26 participants had not given ethnic background. Variables age, gender and ethnic group will be used further in the analysis and discussion section of dissertation for differences in findings in level of alcohol use and peer influence. Participants will be further reviewed in analysis based on level of alcohol use and peer influence. Analysis will aim to

find the relationship between alcohol use and peer influence and the differences seen between gender, age and ethnic group. In discussion section of dissertation findings will be further discussed, argued and compared to findings from literature reviewed.

Design

Quantitative survey design was used for dissertation using questionnaires and research design of non experimental correlation approach. Put forward in Babbie (2007) survey research is probably the best method available for a social researcher with the interest of collecting original data for describing a population too large to observe directly such as; a college student population. Furthermore quantitative approach, tend to study groups or classes of individuals which leads to generalised findings (Howitt, 2010). Design chosen from reviewing literature with similar design used and finding a correlation between alcohol use and peer influence. One of the key readings was using a quantitative research method in a study of US college students where a comparison was made between own self reported alcohol use and alcohol use by a particular peer crowd.

I compared the self-reported quantity and frequency of alcohol consumed by students in a particular peer crowd with the perceived social norms for drinking associated with that peer crowd to assess whether and to what degree students overestimate alcohol consumption in their social reference groups (Sessa, 2007, p. 296).

Variables for correlation research being measured are Level of alcohol use as Predictor Variable (PV) and Level of Peer Influence/Estimation of Peer alcohol use as Criterion Variable (CV). Difference will be measured between variables, age, gender and ethnic group. External variables to account for in the study will be further outlined in limitations of study section.

Ethical note

For dissertation DBS strict ethical guidelines has been followed. Research proposal had to be reviewed by DBS ethics committee and approved. Questionnaire used in the research was reviewed by Research Project Supervisor Tom Prenderville and Head of Social Science Research Projects Bernadette Quinn prior to data collection. DBS Lectures were contacted prior to handing out the questionnaires to confirm it was ok to hand out in their class. At time of handing out questionnaires students were asked consent to participate in the study, some lectures asked their students for consent prior to confirming that they were ok with handing out of questionnaires in their class. It was communicated that it was voluntary to participate in the study and no student had to participate who wished not to do so. No participants can be harmed, upset or hurt. Further communication was given that the research study was fully confidential no names would be mentioned in the study and no information would be shared outside of this particular research study. No students taking part in this research study were under the age 18. Approximately 12 (N = 12) questionnaires were not filled or incomplete reason for this may have been the sensitive nature of the topic although in some instances students seemed rushed to go to next class or may have been late arriving in class leaving them little or not enough time to fill the questionnaire.

Data Analysis

Results section will show findings from data collection. Answers from questionnaires were inserted in statistics software SPSS 18 for a quantitative research analysis. Descriptive analysis has been conducted for the different variables included in method section. Further seen in results section of dissertation frequencies will be run for levels of alcohol used divided into the different variables being measured. To support hypothesis in the aim to find a positive relationship between alcohol use and peer influence. SPSS 18 will be used to further

measure the correlations through SPSS 18 Pearson R Correlation analysis. Differences between variables age, gender and ethnic group will be measured through SPSS 18 Independent samples T-test analysis. Further independent frequencies will be run based on measure of 'one standard drink' and the numbers of frequencies of excessive alcohol use 'six or more drinks in one occasion'. Frequencies will be further run based on particular questions in questionnaire in answers by selected cases of participants, such as; Ethnic Group 'Irish Caucasian'.

RESULTS

Hypothesis in dissertation aim to find a relationship between alcohol use and peer influence among college students. Results from analysis will determine differences in findings between variables gender, age and ethnic groups. A Pearson R Correlation analysis indicated that there was a very significant positive strong correlation between alcohol use i.e. total score from AUDIT questionnaire and peer influence i.e. total score from Peer Influence Scale ($r = .516$, $N = 197(205)$, $p < .001$) (Table 3).

Table 3 Relationship between Total Score Alcohol Use and Total score Peer Influence

Correlations		Total Score Alcohol use AUDIT Questionnaire	Peer Influence Score
Total Score Alcohol use AUDIT Questionnaire	Pearson Correlation	1	.516**
	Sig. (2-tailed)		.000
	N	200	197
Peer Influence Score	Pearson Correlation	.516**	1
	Sig. (2-tailed)	.000	
	N	197	205

Results for Age Groups

Further analysis show, there was a Pearson R Correlation analysis conducted between age and level of alcohol use i.e. total score AUDIT questionnaire and level of peer influence i.e. total score Peer Influence questionnaire (Table 4). There was a very significant moderate negative correlation between age and alcohol use ($r = -.387$, $N = 196$, $p < .001$). There was a very significant moderate to strong negative correlation between age and peer influence ($r = -.469$, $N = 201$, $p < .001$).

Table 4 Relationship between Age and Total score Alcohol use; Total score Peer Influence

Relationships		Age	Total Score Alcohol use AUDIT Questionnaire	Total Score Peer Influence Questionnaire
Age	Pearson Correlation	1	-.387**	-.469**
	Sig. (2-tailed)		.000	.000
	N	204	196	201
Total Score Peer Influence Questionnaire	Pearson Correlation	-.469**	.516**	1
	Sig. (2-tailed)	.000	.000	
	N	201	197	205

Further analysis for age groups showed differences in drinking behaviour among the different age groups. Of participants answering question for how often they had six or more drinks on one occasion (binge drinking), 59% were among age group 18 – 23 (Young Adulthood) stating they had ‘six or more drinks on one occasion’ on a ‘weekly basis’. For answer ‘weekly’, the youngest age group is significantly higher than other age groups that showed 29% for 24 – 30 (Middle Young Adulthood) and 12% for 31 – 55 (Adulthood). For the answer ‘never’ have six or more drinks on one occasion, youngest age group 18 – 23 (Young Adulthood) showed 34% compared with 10.5% for age group 24 – 30 (Middle Young Adulthood) and significantly higher 55% for age group 31 – 55 (Adulthood). Results showed the highest number of participants who binge drink on a weekly basis were among the youngest age group 18 – 23. However a lower number of participants among age group 24 – 30 stated they never binge drink (Figure 1). This can also be affected by gender and ethnic background which will be further analysed as part of results section.

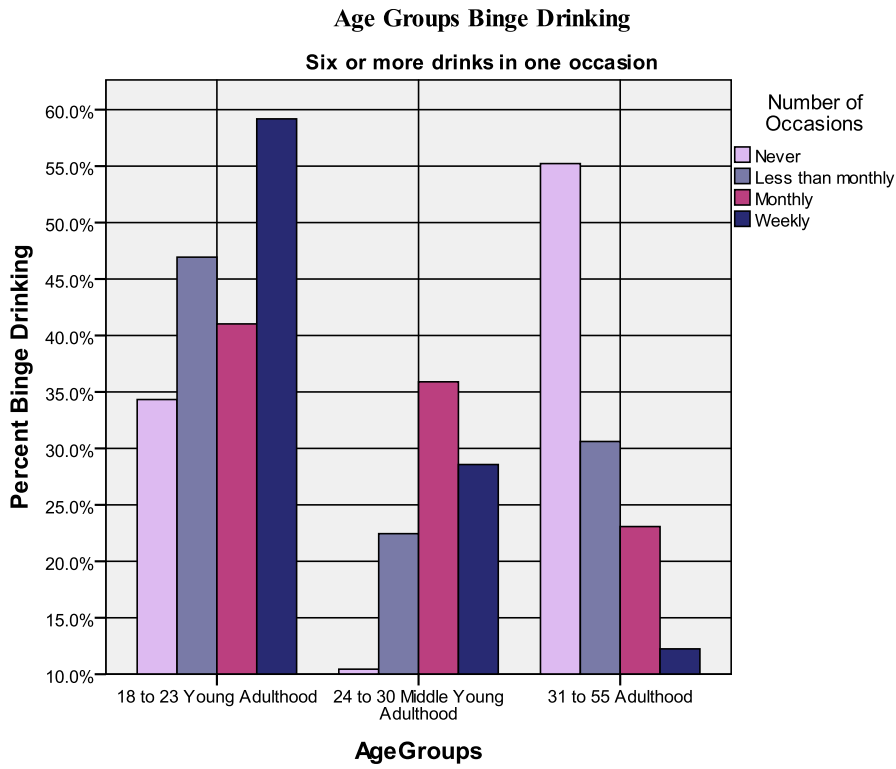


Figure 1 Binge Drinking for different Age Groups

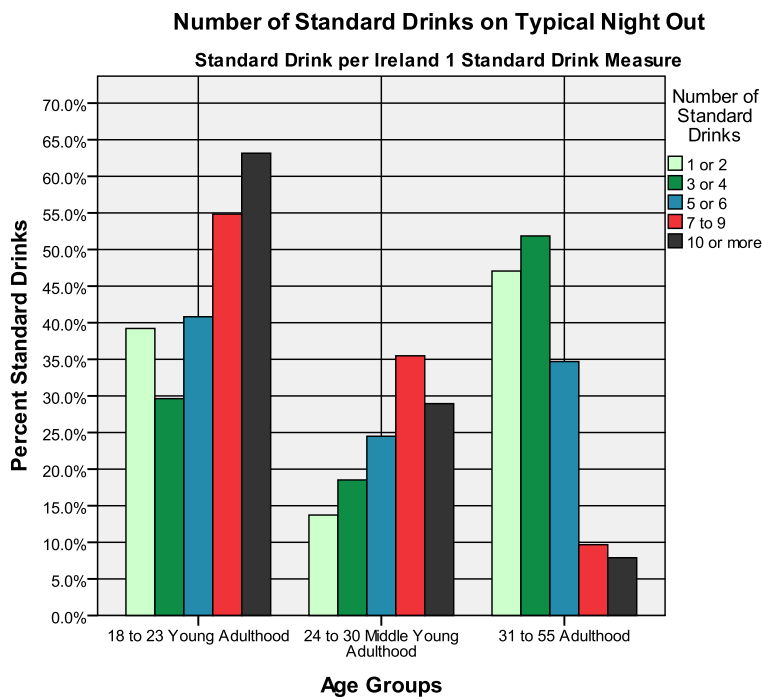


Figure 2 Number of Standard Drinks for different Age Groups

To further measure the level of alcohol use between different age groups, results showed per defined Ireland 1 standard drink measure answers from different age groups. Of participants answering how many standard drinks containing alcohol they had on a typical night out with friends (Figure 2). Of participants who answered '10 or more' 63% were age group 18 – 23 (Young Adulthood), 29% age group 24 – 30 (Middle Young Adulthood) and 7% among age group 31 – 55 (Adulthood). Participants answering question '1 or 2' drinks on one occasion, 39% age group 18 – 23 (Young Adulthood), 14% age group 24 – 30 (Middle Young Adulthood) and significantly higher number of participants for '1 or 2' drinks 47% age group 31 – 55 (Adulthood). An independent t-test was conducted to compare differences between these age groups for the total score of alcohol use i.e. total score from AUDIT questionnaire. The mean score for youngest age group 18 – 23 was 10.90 (SD = 7.97) higher than the mean score for age group 31 – 55 which was 5.16 (SD = 5.22), independent-samples t-test showed there was a very significant difference in mean scores for age group 18 – 23 and 31 – 55 $t(147.7) = 5.325, p < .001$. Mean score for age group 24 – 30 was 9.91 (SD = 5.83) and mean score for age group 31 – 55 was 5.16 (SD = 5.22) independent- samples t-test showed that there was a very significant difference in mean scores for age group 24 – 30 and 31 – 55 $t(105) = 4.432, p < .001$. Second youngest age groups showed similar level of alcohol use as there was no significant difference found between age groups 18 – 23 and 24 – 30.

Further analysis show peer influence difference between different age groups. Most significant difference was seen among youngest age group 18 – 23 (Young Adulthood) and oldest age group 31 – 55 (Adulthood). Mean score for peer influence for age group 18 – 23 was 35.54 (SD = 8.36), the mean score for age group 31 – 55 was 25.04 (SD = 11.75). An independent-samples t-test was conducted to compare mean scores and it showed a very significant difference in mean scores between age group 18 – 23 and age group 31 – 55

$t(113.54) = 6.220, p < .001$. To further analyse answers from Peer Influence Scale questionnaire (Appendix I) frequencies were run for the youngest and oldest age group. For question 4 in Peer Influence Scale questionnaire; 'My friends tends to drink a lot' of age group 18 – 23 28.6% answered 'agree' and 27.5% 'strongly agree'. In age group 31 – 55, 20.9% answered 'disagree' and 40.3% 'strongly disagree'. Further analysis will show difference in gender and ethnic group.

Results for Gender

Results will show findings from analysis on gender differences in level of alcohol use and peer influence. Study sample consisted of an uneven number of male and female participants. Results need to be compared for gender separately as the number of male participants ($N = 77$) is lower than number of female participants ($N = 132$) in this dissertation. This needs to be taken into account when comparing results from data analysis. Differences was analysed for males and females, analysis showed the mean score for alcohol use i.e. score from AUDIT questionnaire for females was 7.99 ($SD = 7.24$), the mean score for males was 10.00 ($SD = 6.90$). An independent- samples t-test was conducted to compare the Alcohol use i.e. total AUDIT questionnaire score for males and females, it showed a non significant difference in mean scores between males and females $t(198) = 1.93, p > .05$. An analysis was conducted as well for gender differences in level of peer influence. The mean score for peer influence i.e. total score Peer Influence Scale for females was 29.52 ($SD = 10.95$), the mean score for peer influence for males was 33.44 ($SD = 10.14$). An independent-samples t-test was conducted to compare peer influence mean score between females and males it showed it was quite a significant difference between mean scores for peer influence $t(203) = 2.533, p < .05$.

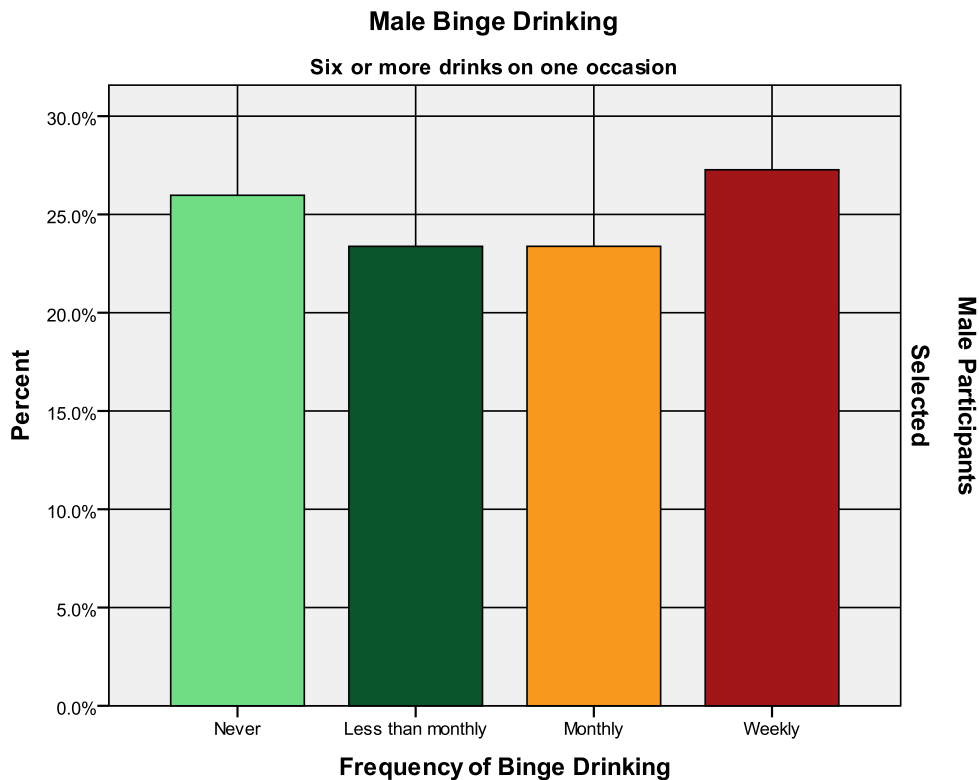


Figure 3 Frequency of Male Binge Drinking

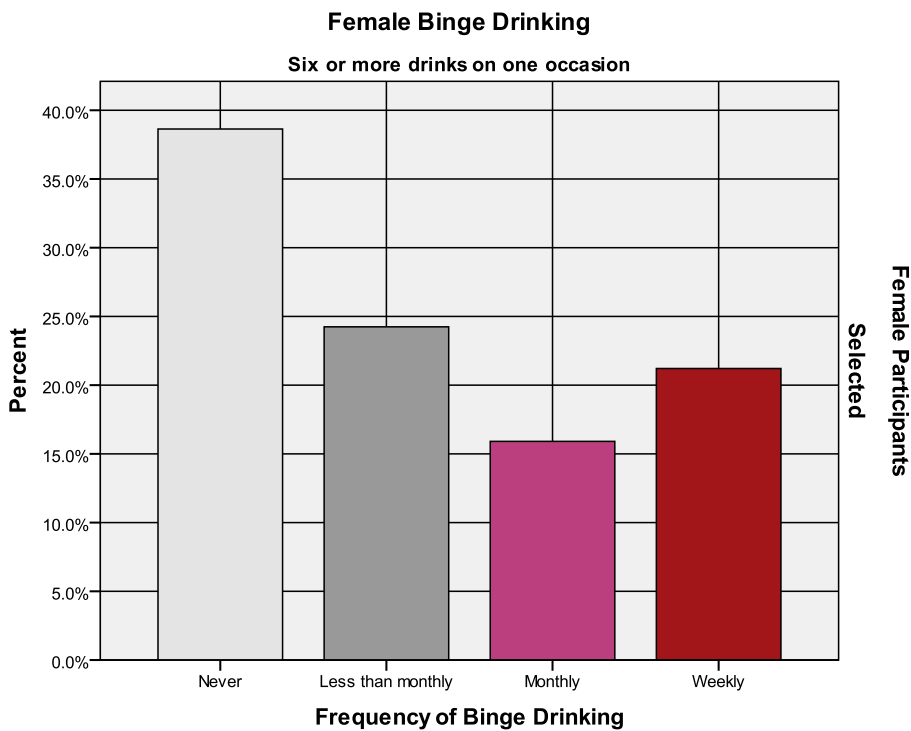


Figure 4 Frequency of Female Binge Drinking

Results showed (Figure 3 & 4) higher percent of females 38% than males 26% showed that they never binge drink (consume 'six or more drinks on one occasion'). However results also showed that the percentage of female participants showed almost as high percentage as males of drinking 'six or more drinks on one occasion' per a 'weekly' basis, 21% for females (N = 28) and 27% for males (N = 21). However the number of female participants answered weekly binge drinking was larger.

Level of alcohol use has also been measured per number of standard drinks the participants are drinking on a typical night out with their friends (Figure 5 & 6). As defined earlier in this dissertation as per Ireland 1 standard drink measure. Results from gender differences showed number of standard drinks, 25% males (N = 19) and 15% females (N = 19) participants drink '10 or more' standard drinks on a typical night out with friends. Both males and females show a quite high number of '1 or 2' standard drinks as well, 24% males (N = 18) and 29% females (N = 37). Number (N) of participants for the answers has been showed as well, due to uneven number of males and females in study sample. Further analysis will show the difference in total score for alcohol use and gender differences as well as ethnic differences.

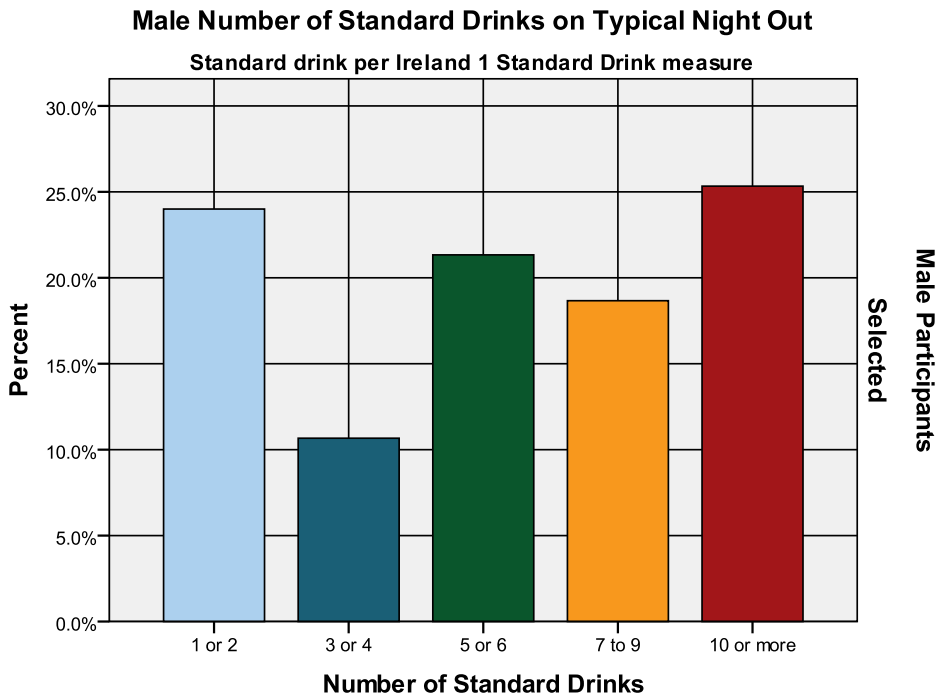


Figure 5 Male Number of Standard Drinks on Night out

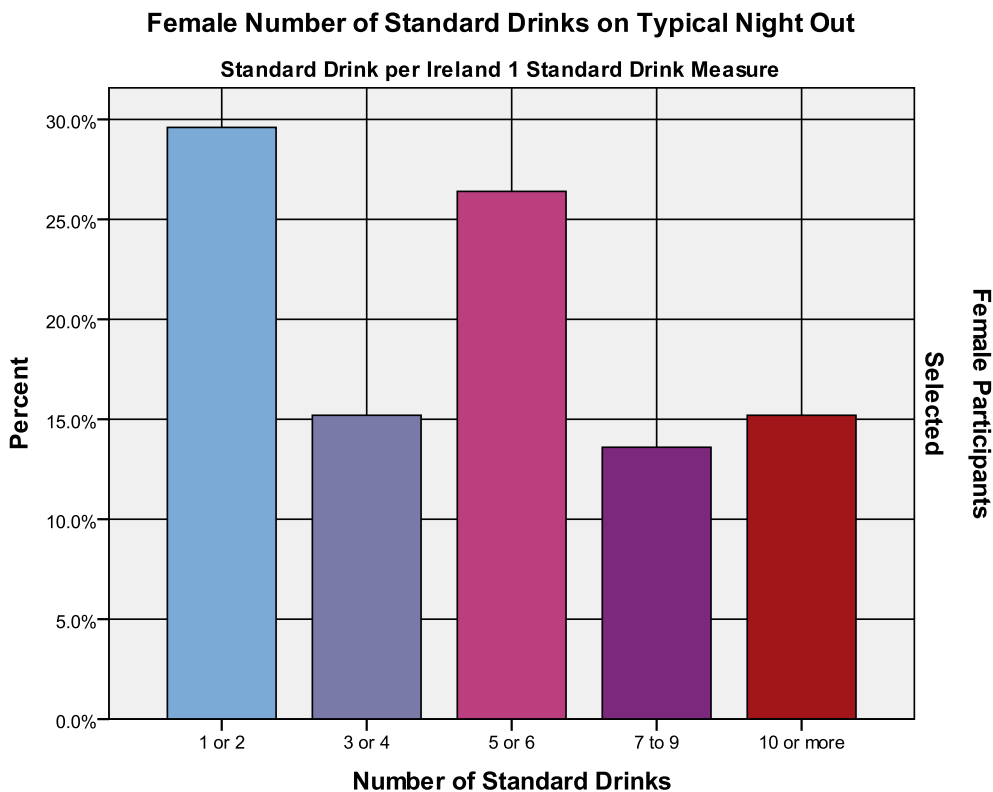


Figure 6 Female number of Standard Drinks

Furthermore analysis was conducted for number of males and females with different ethnic background, Irish Caucasian (N = 133) 72.5% males and 72.8% females. Next largest ethnic group found was African (N= 33) with males 15.9% and females 19.3%. Further frequencies for binge drinking for gender and African ethnic background showed, 90.9% male and 86.4% female with African ethnic background showed answer 'never' drinking 'six or more drinks on one occasion'. For Standard drinks question in questionnaire 80% of male and 77.8% of female with African ethnic background showed having '1 or 2' standard drinks. Further frequencies were run comparing gender differences among the youngest age group 18 - 23 (Young Adulthood) 28% females (N = 24) and 40% males (N = 20) answered binge drinking on a 'weekly' basis. Higher percentage of males drink heavily on a typical night out with their friends '10 or more' standard drinks 38.8% males (N = 19) and 21.7% females (N = 18). Comparing number (N) of participants however a number of males and females showed similar drinking behaviour.

In answers from peer influence Peer Influence Scale questionnaire it showed level of frequencies for different answers between males and females for peer influence. Earlier results pointed towards highest level of peer influence among the youngest age group 18 – 23 (Young Adulthood). Answers from Peer Influence Scale questionnaire were determining level of gender difference seen among this age group. Similar answers were seen for peer influence questions between male and female Peer Influence Scale questionnaire (Appendix I). For question 5; 'Going out drinking alcohol is frequently brought up in conversations with my friends' a higher number of females 50% than males 36% answered 'agree'. 25% females and 31% males answered 'strongly agree'. For question 9; 'My friends and I often laugh about how drunk we were' 27% females and 38% males answered 'agree'. 31% females and 27% males answered 'strongly agree'.

Results Ethnic Background

To determine further ethnic background differences in alcohol use i.e. total score in AUDIT questionnaire the two largest ethnic groups were compared. The mean score for the Irish Caucasian group was 10.80 (SD = 6.69), the mean score for the African group was 1.86 (SD = 3.05). An independent- samples t-test was conducted to compare the mean scores, it showed that there was a very significant difference in alcohol use in mean scores between these groups $t(90.75) = 10.904, p < .001$. Further analysis was conducted to find differences between ethnic group Irish Caucasian and African for peer influence. The mean score for peer influence i.e. total score Peer Influence Scale for Irish Caucasian was 33.22 (SD = 9.11) and the mean score for peer influence for African was 22.81 (SD = 12.69). An independent-samples t-test was conducted to compare the scores for peer influence, it showed it was a very significant difference in mean scores for peer influence between Irish Caucasian and African ethnic groups $t(39.1) = 4.373, p < .001$.

Ethnic Groups were compared for binge drinking, (six or more drinks in one occasion). As shown previously in method section the largest number of participants (N = 133) were among the Irish Caucasian Ethnic Group. In the frequency of binge drinking on a 'weekly' basis the Irish Caucasian Ethnic Group was very close to the only group showing this answer 98%. Therefore further analysis was made on this particular group and the frequency in binge drinking behaviour. Of Irish Caucasian group 33.1% showed binge drinking on a weekly basis and only 15% who showed that they never binge drink (Figure 7). Same analysis was conducted on ethnic group Irish Caucasian for number of standard drinks on a typical night out with friends. Findings showed 28% of Irish Caucasians drink '10 or more' drinks on a typical night out and as low as 11.4% drink '1 or 2' standard drinks (Figure 8).

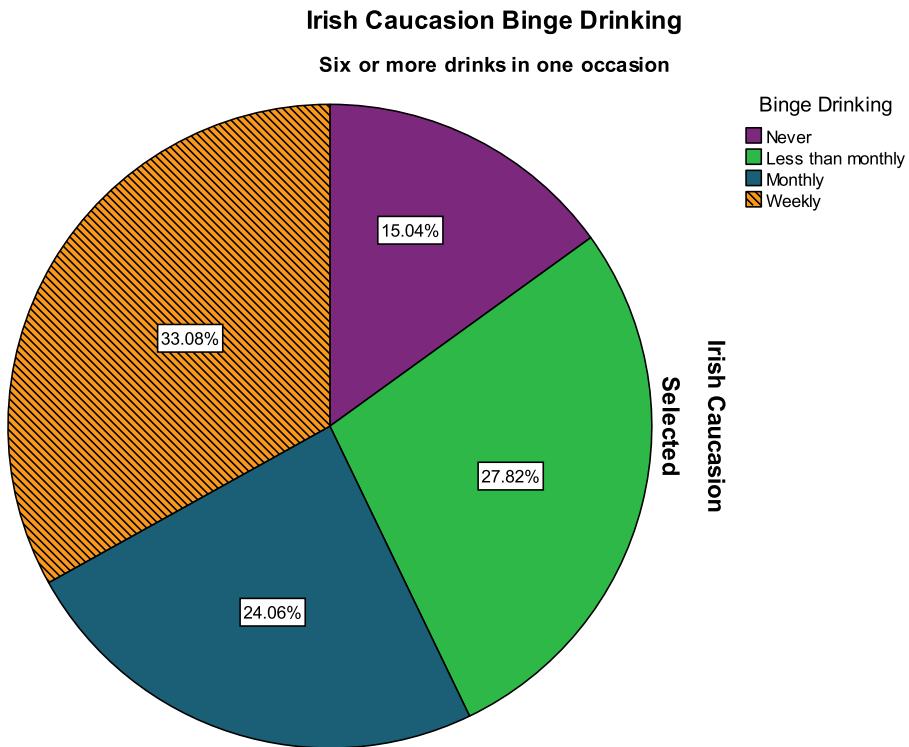


Figure 7 Irish Caucasian Ethnic Group for Binge Drinking

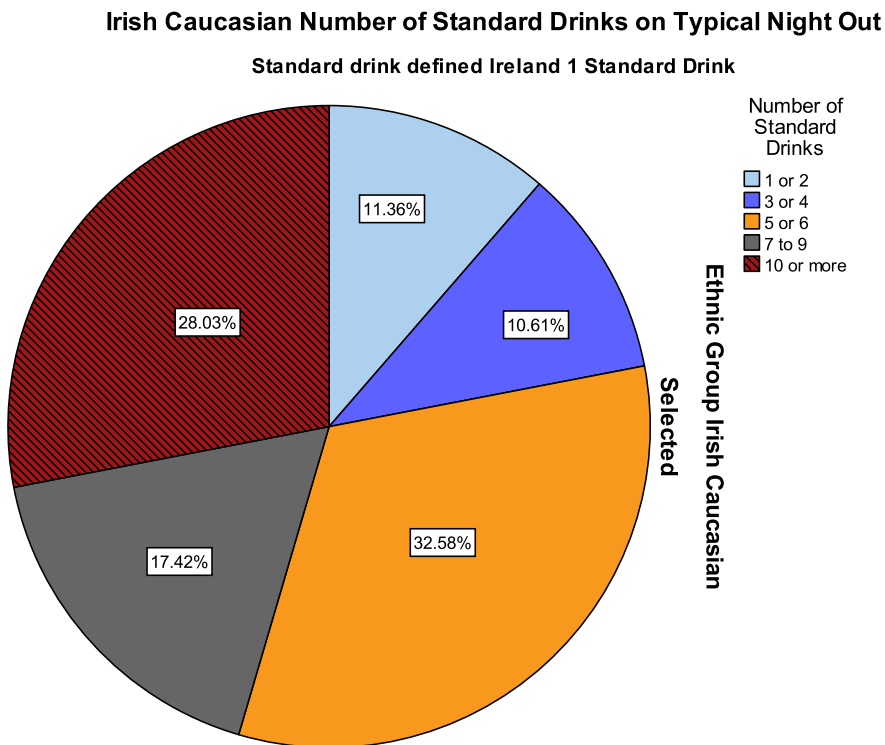


Figure 8 Irish Caucasian Ethnic Group for Number of Standard Drinks

Further analysis was made for seeing differences in answers from Peer Influence Scale questionnaire (Appendix I). Peer Influence showing differences in answers between the two largest ethnic groups compared. For question 8 in questionnaire; 'My friends often speak about the next night out drinking'. The Irish Caucasian group answered 'agree' 39.4% (N = 52) and 'strongly agree' 19.7% (N = 26). For same question African group answered 'strongly disagree' 46.9% (N = 15) and 'disagree' 18.8% (N = 6).

DISCUSSION

The aim of this dissertation is to find a relationship between alcohol use such as excessive use and peer influence. The purpose of dissertation is to find this relationship for a college environment in Ireland, much of the reviewed literature have shown findings from US or European colleges. Variables age, gender and ethnic background being compared in this research project were chosen from gaps in previous research where some limitations had been found where differences between further variables had not been compared. As argued in the study of Crawford and Novak (2010) research needed to further assess the effects of drinking behaviour of gender specific measures and general norms cross levels of beliefs of alcohol and the college experience (BACE). Results from analysis showed a strong and very significant relationship between alcohol use and peer influence. These findings are supported by findings from literature that students tend to overestimate the extend of which their peers use alcohol, see alcohol as desirable and often their own levels of alcohol use increase (Prentice & Miller 1993; as cited in Crawford & Novak, 2010). Further argued for this relationship is seen in Franca et al, (2010) alcohol and heavy episodic drinkers are at higher risk of overestimating peer substance use norms. To further discuss the relationship between alcohol use and peer influence and to find differences between variables age, gender and ethnic background from the sample of the study (N = 209) analysis was conducted for each of the given variables.

Age compared with level of alcohol use and peer influence showed a very significant negative relationship which suggest that level of alcohol use and level of peer influence decrease with age. This is in agreement with European Commission publication showing alcohol consumption levels are highest among the youngest age group between 15-24 years of age and highest percentage seen of respondents who had 3-4 or more drinks per occasion was for students, 46% (European Commission, 2010). Results showed further that the

youngest age group was the group which consumed the highest levels of alcohol, 63% of participants drinking '10 or more drinks on one occasion' were age 18 – 23 and most frequent use, 59% of participants answered that they consumed 'six or more drinks' on a weekly basis were age group 18 - 23. Significant difference was found between youngest age group 18 – 23 and oldest age group 31 – 55 for total score from AUDIT questionnaire where higher score indicated problem drinking behaviour such as binge drinking. No significant difference was found between age group 18 – 23 and age group 24 – 30 which indicates similar drinking levels between these age groups. In agreement with SLAN survey showing one quarter of young adults aged 18-29 said to drink nine or more standard drinks on a typical drinking occasion (Morgan et al, 2009). Further agreed in an earlier study by Wechsler (2002) where high rates of binge drinking were found in the age group 18 – 23 within this group 51% were binge drinkers.

The youngest age group in this study 18 - 23 also showed the highest level of peer influence, this supports the findings for a relationship between alcohol use and peer influence where same age group showed excessive level of alcohol consumption and highest level of peer influence. As argued by Berkowitz, students of heavy substance use have personal motivation for overestimating the norm which justifies their own use and denying it is a problem (Berkowitz, 2004; as cited in Franca et al, 2010). Youngest age group 18 – 23 showed a high score for peer influence question 'my friends tend to drink a lot' 27.5% answered 'strongly agree' and 28% 'agree' compared to age group 31 – 55 that answered 40.3% 'strongly disagree'. Findings are concluding that youngest age group drink most excessively and believe that their peers are drinking to a high level as well. Furthermore this is shown to be risky behaviour as put forward by Delamater and Myers (2007; as cited in Crawford & Novak, 2010) students who believe that drinking heavily is something students

should do are especially vulnerable to the perception that alcohol abuse is a common and accepted behaviour in their college.

Results from gender differences showed some interesting findings, to define gender differences however was somewhat more complex in nature due to the uneven number of male and female participants in the study sample. This has been taken into account when interpreting the findings. Results from analysis showed no significant difference between female and male alcohol use score in total score from AUDIT questionnaire. Higher number of females 38% (male 26%) showed that they never consumed six or more drinks on one occasion and more females than males shower lower levels of alcohol use measured in standard drinks which agree with Berkowitz and Perkins study (1986) that argue males typically drink more excessively than females. Another study reported significantly more binge drinking among men (28%) than women (11%) of binge drinking six or more times a month (Fisher et al, 2007). In addition binge drinking 'at least once a week' was reported by a higher number of male students (61%) than female students (44%) (Hope et al, 2005). Although further findings in this dissertation present that a similar number of female and male participants showed same frequency of alcohol use for binge drinking on a weekly basis, 21% for females (N = 28) and 27% for males (N = 21). Higher percentage of male than female showed 10 or more number of standard drinks on a night out, 25% males (N = 19) and 15% females (N = 19) however the same number of female and male participants had selected this answer. This mirrors findings from another study by Cahill and Byrne (2010) of students who attended a health centre of University College of Cork (UCC), it showed that female students appeared to be binge drinking as often as their male counterparts and drink similar measures of alcohol as males. In further agreement with Cahill and Byrne a US study found there has been a dramatic increase in the rate of frequent binge drinking among undergraduate women. Women who participated in focus groups spoke of college women

attempted to 'drink like a guy' (Young et al, 2004). An earlier study of surveys from 1993 – 2001 showed students of all-women's colleges reported significant increase in frequent binge drinking since the first surveys in 1993 which showed a narrowing of the gap in drinking behaviour between all-women's colleges and coeducational schools (Wechsler et al, 2002).

Results for peer influence score showed quite a significant difference in peer influence between male and female. Gender differences were further analysed in answers from Peer Influence Scale questionnaire among participants from the youngest age group which was the age group that had shown highest level of peer influence. Male and female answers among this age group were similar. A higher number of females 50% than males 36% answered 'agree'; 25% females and 31% males answered 'strongly agree' to the question 'Going out drinking alcohol is frequently brought up in conversations with my friends'. Both males and females in this age group showed high level of peer influence. This is in agreement of findings from another study demonstrating that both men and women overestimate the quantity and frequency of the drinking of their same-sex peers (Lewis & Neighbors, 2004). Further argued by Sessa students in own peer crowd reported significantly more frequent use by others in their own crowd than their own individual alcohol use (Sessa, 2007). Findings in Netherlands, participants with high drinking levels were more likely to socialise with a high drinking level peer group (Schor et al, 2008). However it is unclear from results in this dissertation if the participants refer to same-sex peers, close friends or college friends in general. Findings in results show somewhat disagreement with what is argued by Karwacki and Bradley that social reinforcement from peers is noted to be greater for men than for women in drinking situations (Karwacki & Bradley, 1996; as cited in Borsari & Carey, 2006). Comparisons of gender differences would have been affected by ethnic background.

Ethnic background differences were compared between the largest ethnic groups Irish Caucasian (N = 133) and African (N = 33), other ethnic groups were European and Other Ethnicity (non European) however sample size for the smaller groups was too insignificant and not included in the research analysis. A very significant difference was seen for alcohol use between Irish Caucasian and African ethnicity. Results showed that African ethnic group did not drink excessively a very high number of males and females in this group answered that they never binge drink, 90.9% male and 86.4% female. Similar results was seen in number of standard drinks for African ethnic group 80% of male and 77.8% of female in this group showed having '1 or 2' standard drinks. Some missing data was seen for number of standard drinks question as there was no answer for no drinks, it was noted at data collected that students who never consumed alcohol did not answer this question. Irish Caucasian group was the most significant group answering binge drinking on a weekly basis 98% excluding other ethnicities from weekly binge drinking. In the Irish Caucasian group a third of the group answered they were binge drinking on a weekly basis and very close to a third answered they consumed 10 or more drinks on a night out with their friends. Results are in agreement with European Commission's findings that binge drinking was seen to be highest in Ireland at 44% (European Commission, 2010). Furthermore in a US survey of several colleges, ethnic group differences indicated the highest alcohol use among White Americans and African Americans showed substantially lower levels of use (Windle, 2003).

For peer influence a very significant difference was seen between these ethnic groups, with African ethnicity showing low peer influence and low alcohol use and Irish Caucasian showed high peer influence and high alcohol use. This agrees further with the findings from results shown of relationship for excessive alcohol use such as binge drinking and peer influence also suggested by (Crawford & Novak, 2010; Franca et al, 2010).

CONCLUSION

Aim for hypothesis was to find a relationship between excessive alcohol use and peer influence and there is a significant relationship between alcohol use and peer influence among college students. Findings are showing the highest levels of alcohol use and most frequent use among the youngest age group 18 – 23, the next age group 24 - 30 however showed quite similar drinking behaviour. The older age group 31 – 55 showed significantly lower levels of alcohol use. In addition the youngest age group show the highest level of peer influence which supports the findings from reviewed literature that heavy use is also shown to be related to the view of the social norm of alcohol use among their peer group. The group that are heavy alcohol users are motivated to believe that other college students and their peer group are drinking excessively as well which makes their drinking behaviour seem less of a problem. Higher percentage of male than female students showed high levels of excessive alcohol use and high frequency of use although a number of participants among the female group showed same levels of alcohol use and frequency of use as their male counterparts. Gender differences were more complex to determine due to a difference in sample size with significantly more female than male participants taking part in this study. Findings from further analysis shows no significant gender differences in total score for alcohol use in AUDIT questionnaire. The findings suggesting that gender differences for alcohol use are becoming more equal between young men and women. Gender peer influence showed a difference in Peer Influence Scale analysis however when comparing gender differences among the youngest age group, answers for male and female were very similar which further indicate quite low differences for peer influence between gender in this age group. Comparing findings from the largest ethnic groups it can be concluded that college students of Irish Caucasian ethnic background binge drink quite frequently and on a typical night close to a third of this group would consume excessive number of standard drinks. A significant

number of the next largest group African ethnic background showed that they did not drink excessively and if they consumed alcohol it was the lowest level of number of drinks, one or two standard drinks. Peer influence was showing low for African ethnic group and high for Irish Caucasian ethnic group. This is concluding there are ethnic background differences between alcohol use and peer influence, furthermore it can be seen that groups of high levels of alcohol use also show high levels of peer influence.

Further Research and Limitations

Future research in this area is needed to a greater extend, between different Irish colleges, among young adults that are college students versus non college students and between different socio-economic backgrounds. It would be of interest to follow a longitudinal study of college students in Dublin or even a larger sample in Ireland. A longitudinal research study could determine whether changes are seen over time if alcohol use among students will increase or decrease over an extended time period. In addition a longitudinal research on gender differences in Ireland and whether female students increasing their level of drinking in comparison to their male counterparts over time, it would be interesting to follow if drinking behaviour is becoming gender equal. It may be of importance to develop further responsible drinking campaigns towards young females.

Limitations seen in this dissertation was number of participants, in particular for uneven number of male as female participants. All DBS faculties did not approve in participating in data collection. Variables non-students and different levels of socio economic groups were not included in this study due to difficulty in access to non-students and different levels of socio economic groups. Possible data collection errors may be seen in students misinterpreting questions or filling in questions without reading question properly beforehand. Questionnaires are asking students for self- reported level of alcohol use which

could show some level of error in reporting too low or too high levels of own drinking behaviours. However as mentioned in the design section survey research is a strong method for conducting research for a population too large to observe directly, a sample of significant number of participants will represent the larger group.

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Appendix I

Drinking Habits Among College Students

This study is concerned about drinking habits among college students. Please answer each section as honestly as you can. Do not spend too long thinking about each answer there are no right or wrong answers. Any information that you give will remain strictly confidential you are not required to write your name anywhere in this survey. I would like to thank you in advance for your time and co-operation.

Age: _____

Gender: Male: _____ Female: _____

Ethnic Background: _____

Please read each question and circle the appropriate answer that is correct for you on the answer sheet. Please answer all questions.

How often do you have a drink containing alcohol?

- Never
- Monthly or less
- 2-4 times a month
- 2-3 times a week
- 4 or more times a week

How many standard drinks containing alcohol do you have on a typical night out with your friends? (*Ireland 1 Standard Drink = 10ml of alcohol equivalent to 1 small glass of Wine 100 ml, 1 Single measure of spirits or Half Pint of lager beer/cider*).

- 1 or 2
- 3 or 4
- 5 or 6
- 7 to 9
- 10 or more

How often do you have six or more drinks on one occasion?

- Never
- Less than monthly
- Monthly
- Weekly
- Daily or almost daily

During the past year, how often have you found that you were not able to stop drinking once you had started?

- Never
- Less than monthly
- Monthly
- Weekly
- Daily or almost daily

During the past year, how often have you failed to do what was normally expected of you because of drinking?

- Never
- Less than monthly
- Monthly
- Weekly
- Daily or almost daily

During the past year, how often have you needed a drink in the morning to get yourself going after a heavy drinking session?

- Never
- Less than monthly
- Monthly
- Weekly
- Daily or almost daily

During the past year, have you been unable to remember what happened the night before because you had been drinking?

- Never
- Less than monthly
- Monthly
- Weekly
- Daily or almost daily

Have you or someone else been injured as a result of your drinking?

- No
- Yes, but not in the past year
- Yes, during the past year

Has a relative or friend, doctor or a health worker been concerned about your drinking or suggested you to cut down?

- No
- Yes, but not in the past year
- Yes, during the past year

Please read each question and circle the appropriate number that is correct for you on your answer sheet. Please answer all questions.

1 = strongly agree

2 = agree

3 = neither agree nor disagree

4 = disagree

5 = strongly disagree

1. My friends tend to make fun of people who are not drinking alcohol.

1 2 3 4 5

2. My friends often make favourable comments about people who like to drink alcohol.

1 2 3 4 5

3. Going out drinking alcohol is frequently brought up in conversations with my friends.

1 2 3 4 5

4. My friends tend to drink a lot.

1 2 3 4 5

5. My friends often make me stay out drinking for longer than I had planned to going out.

1 2 3 4 5

6. My friends often share drinking stories with each other.

1 2 3 4 5

7. I feel pressurised by my friends to drink alcohol.

1 2 3 4 5

8. My friends often speak about the next night out drinking.

1 2 3 4 5

9. My friends and I often laugh about how drunk we were.

1 2 3 4 5

10. My friends think it is ok to get drunk more than one occasion per week

1 2 3 4 5

11. I tend to feel like I am missing out if I decide not to go drinking with my friends.

1 2 3 4 5

If you are concerned with or affected by any of the raised issues please do not hesitate to contact the following organisations

www.alcoholicsanonymous.ie Tel: 01-8420700

www.drinkaware.ie Tel: 01-611 4811

<http://www.yourdrinking.ie/support-services/> HSE Helpline Tel: 1800 459 459

I would once again like to thank you for taking part in this study and would remind you that all information here will remain strictly confidential. If you would like to know more about this study, please do not hesitate to contact me at below email address.

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Appendix II

Peer Influence. The Peer Influence Scale was adapted from the Perceived Sociocultural Pressure Scale (Stice, Nemeroff, & Shaw, 1996). The Peer Influence Scale contains 11-items concerned with how frequently participants encounter cues from peers to maintain or attain a thin body shape, (e.g. 'my friends tend to make fun of people who are overweight'). This scale is scored on a 5-point scale, (1= strongly agree; 5= strongly disagree). Scores range from 11-55 for Peer Influence. Low scores indicating more influence, and higher scores indicating less influence.

(See below for measure)

Please read each question and circle the appropriate number on your answer sheet. Please answer all questions.

1 = strongly agree

2 = agree

3 = neither agree nor disagree

4 = disagree

5 = strongly disagree

1. My friends tend to make fun of people who are overweight.

1 2 3 4 5

2. My friends often make favourable comments about the slender figures of other women.

1 2 3 4 5

3. Weight issues are frequently brought up in conversations with my friends.

1 2 3 4 5

4. My friends exercise regularly as a means of weight control.

1 2 3 4 5

5. My friends tend to diet a lot.

1 2 3 4 5

6. My friends skip meals a lot as a means of weight control.

1 2 3 4 5

7. My friends often share dieting tips with each other.

1 2 3 4 5

8. I feel pressurised by my friends to stay slim or lose weight.

1 2 3 4 5

9. My friends often express anxiety about gaining weight.

1 2 3 4 5

10. My female friends admire thin female models and celebrities.

1 2 3 4 5

11. My male friends admire thin female models and celebrities.

1 2 3 4 5

Appendix III

AUDIT questionnaire: screen for alcohol misuse¹

Please circle the answer that is correct for you

1. How often do you have a drink containing alcohol?

- Never
- Monthly or less
- 2–4 times a month
- 2–3 times a week
- 4 or more times a week

2. How many standard drinks containing alcohol do you have on a typical day when drinking?

- 1 or 2
- 3 or 4
- 5 or 6
- 7 to 9
- 10 or more

3. How often do you have six or more drinks on one occasion?

- Never
- Less than monthly
- Monthly
- Weekly
- Daily or almost daily

4. During the past year, how often have you found that you were not able to stop drinking once you had started?

- Never
- Less than monthly
- Monthly
- Weekly
- Daily or almost daily

5. During the past year, how often have you failed to do what was normally expected of you because of drinking?

- Never
- Less than monthly
- Monthly
- Weekly
- Daily or almost daily

6. During the past year, how often have you needed a drink in the morning to get yourself going after a heavy drinking session?

- Never
- Less than monthly
- Monthly
- Weekly
- Daily or almost daily

7. During the past year, how often have you had a feeling of guilt or remorse after drinking?

- Never
- Less than monthly
- Monthly
- Weekly
- Daily or almost daily

8. During the past year, have you been unable to remember what happened the night before because you had been drinking?

- Never
- Less than monthly
- Monthly
- Weekly
- Daily or almost daily

9. Have you or someone else been injured as a result of your drinking?

- No
- Yes, but not in the past year
- Yes, during the past year

10. Has a relative or friend, doctor or other health worker been concerned about your drinking or suggested you cut down?

- No
- Yes, but not in the past year
- Yes, during the past year

Scoring the audit

Scores for each question range from 0 to 4, with the first response for each question (eg never) scoring 0, the second (eg less than monthly) scoring 1, the third (eg monthly) scoring 2, the fourth (eg weekly) scoring 3, and the last response (eg. daily or almost daily) scoring 4. For questions 9 and 10, which only have three responses, the scoring is 0, 2 and 4 (from left to right).

A score of 8 or more is associated with harmful or hazardous drinking, a score of 13 or more in women, and 15 or more in men, is likely to indicate alcohol dependence.

¹Saunders JB, Aasland OG, Babor TF *et al.* Development of the alcohol use disorders identification test (AUDIT): WHO collaborative project on early detection of persons with harmful alcohol consumption — II. *Addiction* 1993, **88**: 791–803.