An investigation into alcohol use amongst female undergraduate students at the University of Limpopo (Turfloop Campus)

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DECLARATION

I declare that the mini dissertation hereby submitted to the University of Limpopo, for the degree master of arts in clinical psychology (degree & field of research) has not previously been submitted by me for a degree at this or any other university; that it is my work in design and in execution and that all material contained herein has been duly acknowledged.

…….. **……..**

Surname, initials (title) **date**

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Abstract

A study investigating alcohol use amongst female undergraduate students was conducted at the University of Limpopo Turfloop Campus. The study was quantitative in nature and used a cross-sectional survey design. A purposive sample of 200 undergraduate female psychology students across 1st, 2nd and 3rd year levels was used. The Protection Motivation Theory (PMT) was used as a framework which guided the study and the reporting of the research results. The self-report questionnaire was made up of several standardized questionnaires and open-ended questions. Quantitative data was analyzed using descriptive statistics namely, frequency tables and figures as they gave a clear overall picture of the data. The chi square (X^2) statistic was also used to see if there was significant difference in drinking trends between 1st, 2nd and 3rd year female psychology students. Nearly 89% of the entire sample reported to being Christian, it was expected that they would have moral values associated with the religion which would either call for moderate drinking or abstinence. The results of this study generally underpin this statement. Overall, a significant difference in drinking patterns across year levels, with first years more likely to report problem behaviours relating to alcohol consumption, than second or third year levels was found. In terms of the PMT, the majority of the respondents reported responsible drinking behaviours and patterns. However, a notable number of participants, although not statistically significant, did report a number of problems associated with alcohol consumption. The study recommends that future research be undertaken into alcohol use amongst both genders at different year levels at the institution. It was also recommended that qualitative research, to find out students motivations for drinking, be undertaken amongst both genders.

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List of Acronyms

AA	Alcoholics Anonymous
AIDS	Acquired Immune Deficiency Syndrome
DT	Delirium Tremens
FAS	Foetal Alcohol Syndrome
HBM	Health Belief Model
HIV	Human Immunodeficiency Virus
HPCSA	Health Professions Council of South Africa
KAPB	Knowledge, Attitudes, Perceptions and Behaviour
IMFL	Indigenous made foreign liqour
MAST – R	Michigan Alcohol Screening Test - Revised
PMT	Protection Motivation Theory
REM	Rapid Eye Movement
SA	South Africa
STI	Sexually Transmitted Infection
SADHS	South African Demographic Health Survey
TCA	Thematic Content Analysis
UK	United Kingdom
USA	United States of America
VCT	Voluntary Counselling and Testing
WHO	World Health Organisation

CHAPTER 1: INTRODUCTION

1.1 Introduction

The study focused on alcohol use amongst tertiary students specifically focusing on female psychology undergraduate students. There is a very little research that focuses on alcohol use amongst females. At present there is a gap in the literature researching alcohol use amongst female tertiary students which the present investigation aims to fill.

Alcohol consumption has a long social history in South Africa. Indigenous people consumed fermented, intoxicating drinks as an important component of social and cultural gatherings worldwide, indigenous made foreign liquor (IMFL). Household surveys indicate that in 2007 nearly 50% of males and 20% of females consumed alcohol regularly in South Africa, although this is probably an underestimate (Mogotsi, 2011). In colonial times alcohol was exchanged for labour and goods, this was continued throughout the apartheid era. The Western and Northern Cape still experience the legacy of the *dop* system which was used to control farm workers through a regular supply of crude wine as part of their wages (Schneider, Norman, Parry, Bradshaw & Pluddeman, 2007).

Adult per capita alcohol consumption in South Africa in 2000 was estimated to be 10.2 litres of pure alcohol per year, or 12.4 litres if adjusted for unrecorded consumption (this would be home consumption of alcohol). These figures are moderate if compared to developed countries. However, the pattern of drinking is worrying given that a large part of the population does not consume alcohol owing to for instance, age and religious convictions. If this is factored in, the amount consumed per drinker is closer to 20 litres of absolute alcohol consumed per year, which is amongst the highest in the world. One-third of those who consume alcohol in South Africa are reported to have risky drinking behaviours over weekends, such a binge drinking (Schneider et al., 2007). It must also be noted that alcohol is an integral part of many emerging economies and is thus important for their global finances (Joe, Joe & Rowley, 2009).

Heavy alcohol use by tertiary students leads to a variety of alcohol-related problems, such as increased chances of risky sexual behaviour, lowered marks and high dropout rates (Mogotsi, 2011). According to Hingson, Heeren, Winter and Wechsler (2005) in a nationwide survey of American college students, it was found that 44.8% of students were classified as binge drinkers consuming five or more drinks on at least one occasion in thirty days. The

investigation noted that binge drinking peaks at ages 21-23 years (49.9% of reported drinkers binge drink at that age). According to Richardson and Barrow (2000) alcohol consumption amongst tertiary students in England is much higher than that of their peers who do not attend university. It is further reported that university students see the heavy use of alcohol as normal and something expected of them. Another issue in the consumption of alcohol, particularly by young people, is the media role in glamorizing the use of alcohol. For example, the role of alcohol companies in the sponsorship of national sports teams or national sport heroes which is likely to influence young people to use that specific brand of alcohol (Taylor, Jinabhai, Naidoo, Kleinschmidt & Dlamini, 2003).

Research indicates that the majority of young people in South Africa drink from an early age. As they go through their teenage years into their twenties they drink alcohol in ever higher amounts (Pelzer & Ramlagan, 2009). Students at tertiary institutions, especially undergraduates, experiment with alcohol which can lead to physical, social, emotional and academic problems (Joe, Joe & Rowley, 2009; Mogotsi, 2011). As South African undergraduate students, attending tertiary institutions are away from parental or caregiver supervision they are likely to have an unrealistic sense of independence and may misuse alcohol without understanding the consequences (Peltzer & Phaswana, 1999). This is problematic as over-consumption of alcohol has a negative impact on student behaviour for instance, poor lecture attendance which is linked to a decrease in academic performance (Richardson & Barrow, 2000).

Quantitative results of a study conducted by Mogotsi (2011), underpinned by the Health Belief Model (HBM) and Protection Motivation Theory (PMT), at an emerging tertiary institution in South Africa found that males and females have similar drinking patterns in terms of when they drink, how much they drink and the types of alcohol they drink. Qualitative results suggested that some students report that they know that there is a problem with undergraduate alcohol use as many students do not drink moderately. The sample considered excessive drinking by both males and females as problematic. According to Pithey and Morojele (2002) however, because females have a poor tolerance for alcohol physiologically, which may result in negative sexual and other behaviours they are at a greater risk of pregnancy, HIV and other sexually transmitted infections (STI's).

1.2 Background to the problem

The abuse of alcohol and other drugs amongst tertiary students in South Africa is problematic (Mogotsi, 2011). According to Borsari, Bergen-Cico and Carey (2003), problems commonly associated with alcohol abuse include property damage, poor academic performance, problematic peer relationships, unprotected sexual activity, physical injuries, date rape and suicide. It is also noted that while some students begin using alcohol and other drugs after enrolling in tertiary institutions, research suggests that other students begin drinking much earlier but the problem escalates during tertiary education years. Binge drinking has also been found to be more prevalent in young people who attend tertiary institutions than their peers who do not, which is consistent with findings that the use of alcohol is part of the culture of university life (Taylor et al., 2003). Binge drinking has been identified as the number one substance abuse problem for American undergraduate students. In South Africa females are reported to be drinking as much as their male counterparts, but do not have the same physiological capacity to deal with alcohol consumption. This leads to more physiological and psychological problems, particularly in later life, than males (Mogotsi, 2011).

1.3 Research problem

There is much research focusing on alcohol consumption generally but very little focusing on alcohol use amongst women. In South Africa no research could be found focusing on alcohol use amongst female tertiary students, which points to a gap in literature. The present exploratory investigation aims to initiate research into this topic because alcohol use is a factor in for instance, poor academic performance, inadequate peer relationships and is linked to more physiological and psychological problems in females than males.

1.4 Aim of the study

The aim of the study is to investigate alcohol use amongst female psychology undergraduate students registered at the University of Limpopo (Turfloop campus).

1.5 Objectives of the study

The research will be guided by the following objectives:

- to identify the occurrence of alcohol use amongst female psychology undergraduate students at the University of Limpopo (Turfloop campus);

- to ascertain if drinking alcohol amongst female psychology undergraduate students has a negative effect on their academic performance, at the University of Limpopo (Turfloop campus);
- to ascertain if drinking alcohol has a negative effect on undergraduate female psychology students social relationships, at the University of Limpopo (Turfloop campus).

1.6 Significance of the study

Alcohol abuse among female students is a growing problem that has major effects on their lives. The findings of this study will benefit appropriate university authorities and will be helpful in designing campaigns and/or intervention strategies aimed at reducing or preventing alcohol abuse among female students at the University of Limpopo (Turfloop campus). Further, the findings will add to research studies on alcohol generally and be the basis for future research into female alcohol consumption as the topic is not well investigated.

1.7 Organisation of the dissertation

The dissertation is organised in the following manner

Chapter 1: Gives an introduction to the study.

Chapter 2: Reviews relevant literature for the study.

Chapter 3: Provides the research methodology for the study.

Chapter 4: Provides the research framework for the study.

Chapter 5: Gives the study results and analysis.

Chapter 6: Discusses the results of the study.

Chapter 7: Provides the methodological limitations, strengths and recommendations for the study.

1.8 Summary

Alcohol use amongst tertiary education students, particularly females undergraduate is an increasing problem. Alcohol use is commonly associated with problems such as property damage, poor academic performance, problematic peer relationships, unprotected sexual activity, physical injuries, date rape and suicide. Females have poor tolerance for alcohol physiologically which may result in risky behaviour(s) that can results in them contracting diseases and, in the long term, result in social and/or psychological problems.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

Parry, Plüddemann and Steyn (2005) state that when alcoholism was discussed thirty years ago, people automatically thought of male drinkers. In the last few decades however, research interest in women drinkers has increased. It is reported that women's consumption of alcohol has risen exponentially since the Second World War. This is because many women are under more stress than their forbears due to the combination of work and family life. In most parts of the world females are still the main caregivers for children and homemakers for their male partners.

According to Flisher, Parry, Evans, Muller and Lombard (2003) women are inclined to be available to others and, in making themselves available, forget about themselves. Research has also indicated that women who work and have families are more likely to be perfectionists than their male partners. This means that they work obsessively to keep very high standards in their work and homes. As a result of this they find themselves unable to unwind at the end of a work day without alcohol. Alcohol thus becomes a solution to their stress. Perfectionism and high standards, which cannot be kept up, lead women to suffer depression and anxiety attacks, which at turn puts them at a higher risk of alcohol abuse. The same applies to women with a genetic predisposition to addiction, alcohol affects them more intensely and they tend not to suffer from a hangover (which allows them to drink more). Highly educated women are also at risk of alcoholism, they drink twice as much as uneducated or illiterate women, possibly because they have a higher and income and less social constraints. Women are reported to seek the short-term effects of alcohol which alleviates personal tension, seems to increase self-esteem and assertiveness which helps when they want to meet potential sexual partners. It is also reported that lesbians use alcohol to hide their greater vulnerability to discrimination, victimisation and stigmatisation.

According to Mogotsi (2011) work can be a trigger for alcohol abuse. For instance, drinking after work, and sometimes during lunch, has become socially acceptable. Problematically, alcohol affects women differently to men. They react faster and more intensely to alcohol as they have a lower body weight, less muscle and more fat and produce fewer enzymes that

break down alcohol than males. This makes consuming alcohol more risky physiologically for females as opposed to males.

2.2 Alcohol consumption around the world

2.2.1 America

National surveys of adolescents, college students, and other young adults in the United States reveal high rates of alcohol use among these age groups, as well as high rates of dangerous drinking practices such as binge drinking and daily drinking. Additional health compromising behaviours such as tobacco use and drinking and driving often co-occur with alcohol use in these populations. The consequences of young people drinking together, away from parental control, are always a recipe for disaster (Stolle, Sack & Thomasius, 2009).

Alcohol use during adolescence and young adulthood remains a prominent public health problem in the United States. National survey results indicate that 28.6 percent of 12th graders and 40.1 percent of college students reported to binge drinking (that is, consuming five or more drinks in a row) during the 2 week period preceding the survey. Alcohol use among adolescents and college students is also associated with many risk behaviour drink driving causes more deaths in the USA than for instance, lung cancer. In addition, studies on college campuses have shown that students who do not drink experience the adverse second hand effects of drinking, including victimisation (for instance, verbal or physical threats and actions) and personal intrusion (for instance, disruption of sleep or study habits) by those who have been drinking. Another disturbing trend in youth drinking is the initiation of alcohol use at ever younger ages. Between 1987 and 1996, surveys indicated that the average age of initiation to alcohol use decreased by more than 1.5 years, from 17.8 years in 1987 to 15.9 years in 1996 (Babor, Aguirre-Molina, Marlatt & Clayton,1999).

In 1999, more than 32 percent of young people reported beginning to drink before the age of thirteen years. Earlier initiation of alcohol use (prior to age 15) has been associated with increased risk for alcohol related problems later in life. Rates of drinking among college students and other young adults are also higher than in past decades. College students are often undergoing role transitions such as moving away from the family home for the first time, residing with other students, and experiencing reduced adult supervision that increases the chance of risky behaviour(s). College students also frequently reside in different physical and social environments and encounter new social and institutional factors (such as, college

parties and football weekends) that may foster heavy alcohol use (Marczinski, Grant & Grant, 2009).

2.2.2 Thailand

Assanangkornchai, Saunders and Conigrave (2000) report that alcohol use and abuse is a widespread problem in Thailand. Alcoholism is not only common amongst teenagers but in the general Thai population, the country ranks 5th in the world for the most consumption of alcohol per capita. However, in a country with nearly 70 million people, accidents and fatalities due to alcohol use and abuse is still growing. In 1999 people with alcohol dependence problems in Thailand were recorded as 19.5% males and 4.1 % females, predictions suggest that these figures will rise exponentially in the next few decades.

In Thailand, alcohol is widely available and it is cheap, it is estimated that people (who are not considered heavy drinkers) consume between 5.5 and 7.5 litres (per head) of alcohol each year. Nearly 60% of traffic accidents are a result of drinking and driving. In most cases, the drivers and passengers involved are seriously injured and there are many fatalities. During popular Thai holidays the risk of being involved in an accident from drinking is exponentially higher than during the rest of the year (Assanangkornchai et al., 2000).

2.2.3 Scotland

Haw, Gossrau and McGlew (2003) state that historically drinking alcohol is considered an important part of Scottish culture, particularly whisky which is a product of Scotland. This was because in centuries past, it was sometimes safer to drink alcohol than water. This was because the fermenting process involved boiling, which killed bacteria. Much of the water, up till the early 20th century, was polluted, and people took more of a risk by drinking it than drinking alcohol. Most people in this part of the world consume alcohol weekly. There is also an acceptance of occasional inebriation. It is reported that the Scots tend to drink more heavily than people living in other parts of the United Kingdom (UK). The majority of people living in the country, over the age of 16 drink alcohol, 93 percent of men and 87 percent of women drink alcohol. They drink nearly 25 percent more than the English and Welsh. A strong link between alcohol abuse and poverty persists in Scotland. Men who live in deprived areas are seven times more likely to die of alcohol-related causes than anywhere else in the UK.

Binge drinking is a significant problem in Scotland. Light, Grube, Madden and Gover (2003) report that there are many dangers associated with this type of alcohol abuse such alcohol poisoning. When people drink too much in a short period of time, their blood alcohol concentration can reach dangerous levels. People who binge drink are more likely to suffer from symptoms of depression. This can also mean that they will be more at risk of committing suicide. It is also true that individuals who binge drink usually end up having hangovers. This means that the individual is not able to perform well at work the next day. Some people will be unable to make it into their job at all. Drinking alcohol to excess and resultant hangovers cost businesses in Scotland heavily through lost productivity and sick days.

Underage drinking is also a serious problem in Scotland. Not only are more young people drinking alcohol than in past decades, but they are also drinking larger quantities. This is problematic because the younger people are when they begin drinking the more likely they are to become alcoholics or develop alcohol related illness in later life. Underage drinking also interferes with normal adolescent development, and it prevents young people from performing well at school. Research suggests that those who drink alcohol at an early age are more likely to become involved in illegal drug use (Waller, Naidoo & Thom, 2001).

There are many common reasons for the heavy drinking culture in Scotland. During the industrialisation of the 19th Century, there was a great deal of poverty in Scotland's urban areas, particularly Glasgow. Housing conditions for the poor were very bad. Many people turned to alcohol as a means of dealing with their circumstances. It is suggested that during the long cold winter nights there was not much to do and going to a bar provided an opportunity to socialise and ignore the bad weather. As the long Scottish winters are cold and dark a great many people became depressed, so drinking was a way to alleviate this, in the short term (Waller et al., 2001). A recent ban on multi-buy deals in supermarkets is aimed at stopping sellers in Scotland from using price reductions to encourage people to buy more alcohol (Light et al., 2003).

2.2.4 India

Alcohol is one of the most commonly consumed intoxicating substances in India. It has traditionally been drunk in tribal societies, although it has won increasing social acceptance among other groups, urban males being the leading example. It is easily available and widely

used, especially at festivals such as Deepavali (the five day festival of lights which celebrates the waning moon) and Holi (the festival of colours or love). At the moment the use of alcohol is infrequent among women, who also tend to resist the habit, but high amongst males (Mohan, Chopra, Ray & Sethi, 2001).

According to Saxena (2000) between 15 and 20 per cent of Indian people consume alcohol and over the past twenty years, the number of drinkers has increased from one in 300 to one in 20, an exponential and problematic increase. It is estimated that, of these, 5 per cent can be classed as alcoholics or alcohol dependent. This translates into about five million people addicted to alcohol. The intake of Indian made foreign liquor (IMFL) is growing at the rate of 15 per cent a year. Sixty five percent (65%) of the Indian liquor market is controlled by whisky manufacturers. The state of Kerala stands first in per capita consumption of liquor at 8.3 litres per head per year, followed by Punjab at 7.9 litres per head per year.

Today in India, the tendency to alcohol consumption has permeated down to the youth. The media has played a leading role in encouraging the use of alcohol amongst young people by the portrayal of drinking in congenial, social settings and by using adverts which associate drinking with glamour and celebrity status. Over the years, the age at which youngsters begin to consume liquor has come down in most provinces for instance, in Kerala in 1986 the age of first alcohol consumption was 19, by 1990 it had dropped to 17, and by 1994 the age was 14 (Mohan et al.,2001)

2.2.5 Africa

According to Obot (2000) alcohol has been a constant presence in African social life for centuries, as it has been in most parts of the world. Except where it is banned for religious reasons, large quantities of brewed or distilled drinks are produced in local communities or by modern commercial enterprises to satisfy the taste of a growing number of consumers. Like other aspects of life on the continent, tradition remains strong, even though the influence of modernity and the easy acquisition of alcoholic beverages have penetrated remote villages. Commercially produced beer is the most preferred drink on the continent. However, western spirits have usurped the cultural roles reserved for traditional drinks. Much of what is consumed in rural areas and among the urban poor are fermented beverages like *burukutu* and *pito* or illicitly brewed drinks like *kachasu* in Zambia, *ogogoro* in Nigeria, and *gongo i*n Tanzania. Though interest in the topic has grown in the past two decades, little is known

about the levels and patterns of consumption of alcoholic beverages in many African countries.

According to Ibanga (2005) much of the debate on alcohol consumption in Europe and North America has concentrated on the problem of heavy episodic (or binge) drinking by young people. Rapid increases in social problems, often associated with drinking to intoxication by youth and young adults (from disorderly conduct to violence and injuries), have been a source of heightened concern in these societies in recent years. In Africa, there has been a longstanding interest by researchers in studying the drinking behaviour of adolescents in different countries, though most of these studies have focused on the behaviours of urban youth and students in secondary schools. For example, one of the earliest studies conducted in Nigeria showed that 40% of the secondary school students surveyed said that they had consumed alcohol in the past year. In another survey conducted around the same time in seven schools 21% of the students reported a lifetime consumption of alcohol (from adolescence and sometimes childhood). A more recent study, in a different part of the country, indicated that, of the secondary students, who reported drinking in the past year 25% drank every day (Obot, Karuri & Ibanga, 2003). These studies were all conducted in the southern part of the country, and little attention was paid to level of consumption or the harmful consequences of drinking.

The extent of hazardous consumption of alcohol by young people in Africa can be collected from available survey data. Surveys among young adults aged 18-24 years show that, compared to young people in some South American and European countries, few of them engage in heavy episodic or binge drinking (WHO, 2012). For example, the proportion reporting this pattern of consumption is 9.3% in Chad, 6.4% in Burkina Faso, 5.4% in Namibia, 2.8% in Zimbabwe, 2% in Ethiopia and less than 1% in many countries as compared to 20% in the Czech Republic, 17.8% in Slovakia and 15.3% in Brazil. In Interestingly, in Nigeria, South Africa and Ethiopia more women drinkers than men reported regular consumption of volumes of alcohol that exceed what can be defined as moderate drinking (Ibanga, 2005).

2.2.6 South Africa

According to Room et al. (2002), the consumption of alcohol has been part of African culture, rituals, tradition and customs for many decades. Though alcohol has been consumed for thousands of years, the quantity and patterns of alcohol consumption have changed significantly over the past 500 years. The most important of these changes has been the replacement of traditional and locally produced beverages with industrial beverages in particular, western-style commercially produced beer. As a result of this, regular heavy drinking has become a sustainable pattern. Previously alcohol products did not last long because of the warm climate each batch was consumed within a relatively short period of time. The amount of alcohol available was typically limited by the amount of agricultural surplus. Other factors which have substantially affected patterns of drinking in developing countries include urbanisation, changes in gender and age roles, and high intensity mass marketing and promotion of alcoholic beverages by mass multinational corporations (Parry, Plüddemann & Steyn, 2005).

In traditional African society the use of alcoholic beverages appears to have been well regulated. Drinking did not occur on a daily basis and people did not drink alone or just for the sake of drinking. Rather, drinking served a communal and ceremonial purpose (Mogotsi, 2011; Western Cape Department of Economic Affairs and Tourism, 2003). However this changed with the global and social economic development in the late 19th and 20th century.

Rates of drinking in less developed countries are increasing when compared to the more developed countries. It also appears that there is a link between economic prosperity and rising alcohol consumption. The adult per capita measurement of alcohol consumption assumes an average across the population, but not everyone consumes equal amounts (Smit, Pretorious & Joubert, 2009).

In 1998, as part of the first South African Demographic and Health Survey (SADHS, 1998), an alcohol survey was conducted to assess the extent of alcohol use, risky drinking, and alcohol problems among South Africans in order to obtain estimates of consumption, risky drinking behaviours and to inform intervention efforts (Parry et al., 2005). A national household survey was undertaken providing cross-sectional data on a representative sample of the non-institutionalised SA population. Current and life time drinking from this survey was reported as 45% males and one-fifth of the women while seventeen percent (17%) of

both genders, 15 years and older, reported that they currently consume alcohol weekly. Rates of current drinking differed substantially by population group and gender, with the highest levels reported by white males (71%), followed by white females (51%), and Coloured males (45%). The lowest rates were reported by African and Asian females (12% and 9% respectively). For both men and women higher rates of current drinking were recorded in urban areas. For males the highest current drinking levels were reported in the Free State and Gauteng (50% or more) and the lowest levels were reported in the Northern Province (28%). For females, the lowest levels were also recorded in the Northern Province (9%), with the highest levels being in the Free State, Western Cape and Northern Cape (23%-25%). For both men and women the highest levels of current alcohol use were recorded among persons in the 35-44 and 45-54 year age groups, and the lowest levels in the 15-24 year group. It must be noted that in traditional cultures female drinking, in particular, is usually disapproved of and, as a result, is likely to be under-reported (Siegfried, Parry, Morojele, & Wason, 2001).

According to Peltzer, Davids and Njuho (2011) a national study was conducted in 2008 among persons 15 years and older found that 27.7% were currently (past month) using alcohol, 41.5% for males and 17.1% for females. These rates show a slight increase over the last population based survey of in 2005. However, they were roughly the same in the Department of Health Survey of 1998. This study found that overall 9.6% of south Africans (17.1% of males and 3.8% of females) engaged in past month binge drinking. An increase in current binge drinking and hazardous or harmful drinking prevalence was observed from 2005 to 2008 in South Africa.

2.3. Causes of alcohol abuse

Abuse of alcohol is attributed to the following different factors.

2.3.1 Curiosity and experimentation

Many youth sample alcohol when they are young and at home during special occasions and some religious festivals. Out of curiosity, they taste alcohol in its various forms, in various combinations and often in increasing quantities. When overindulgence occurs it represents the youngsters attempt to define his or her capacity, as well as to experience how it feels to be drunk. Unlike adult abusers, who deliberately become intoxicated, inexperienced drinkers usually do not intend to get drunk but may become so when experimenting with alcohol. Due

to peer pressure and factors such as parties and going out to night clubs experimentation ends and drinking alcohol becomes the norm (Grave, 2000).

2.3.2 Marketing and the Media

Alcohol advertising is used to appeal to different segments of the population. At present a rising market in alcohol consumption is Black females, thus adverts are aimed specifically at this market which portrays alcohol consumption as sophisticated, fun and sexy (Nelson & Mora, 2006). The advertisement of alcohol also influences youth to start drinking. For instance, many drinks are brightly coloured, have attractive packaging and taste like cool drink (Substance Abuse and Mental Health Services Administration, 2002).

2.3.3. Social change

In times of rapid social change people tend to experience stress. During the 1930s and later, during the 1960s and 1970s, there was marked increase in alcohol consumption in America and other Western countries associated with societal changes. In other words, an increase in the levels of stress faced by populations usually leads to an increase in the use and abuse of alcohol, leading to an increase in alcoholism and binge drinking. This can easily be related to apartheid and its discriminatory practises in South Africa (Bezuidenhout, 2006).

2.3.4. Peer pressure

Simons-Morton, Haynie, Crump and Saylor (2001) suggest that peer pressure may be more strongly associated with drinking for females than males. High school girls who report high levels of peer pressure to drink are twice as likely to use alcohol as those who report less peer pressure. This relationship between peer pressure and alcohol consumption was not found for boys. When several of a young females closest friends smoke or drink, they are more than seven times more likely to drink alcohol (boys who have several close friends who smoke or drink are only three times more likely to drink alcohol). Peer pressure occurs when adolescents generate their own pressure as a result of their fears of being rejected by the in-group (the one they want to be associated with) which leads to risky drinking behaviours.

2.3.5 Low Self-Esteem

According to Substance Abuse and Mental Health Services Administration (2002) teenage girls with low self-esteem or low self-confidence are twice as likely as those with higher self-esteem (self-confidence) to abuse alcohol. A study conducted found that girls who have a

low-self-esteem at age 12,were nearly 2.5 times more likely to engage in heavy alcohol use at age 15 than those with higher self-esteem.

2.3.6 Availability of alcoholic beverages

According to Bezhuidenhout (2006) although there are laws governing the sale of alcoholic beverages, their availability on the open and illegal market makes them easily accessible. This means that youngsters who are under age for drinking find it easy to obtain alcohol. It is also true that the availability of low alcohol beverages increases the opportunity for more people to consume more alcohol, whilst thinking that they are drinking less. Research has also indicated that a positive orientation towards alcohol increases the risk that an individual will eventually become a heavy drinker, a binge drinker or an alcoholic.

2.3.7 Enjoyment

According to Grave (2000) teenagers have the belief that a social activity cannot be enjoyed unless it includes the consumption of alcohol. Many of them have the mentality that they will not enjoy a party, a movie or school trip unless they are feeling the effects of alcohol. They are susceptible to this point of view because of peer pressure and media advertising, plus their innate rebelliousness against society. Adults drink alcohol as often they feel that it adds enjoyment to a meal or social occasion, in moderation this is true, but over-indulgence which is often ignored can have sometimes fatal consequences (for instance, drinking and driving, marital disputes ending in violence).

2.3.8 Size of the family

Early research by Woodward (1981) indicates that the youngest child of a large family runs a greater risk than the others of becoming a heavy drinker. There are a number of reasons for this. The youngest child has to fight for attention and, if he or she is adequately rewarded, may substitute the effects of alcohol for the products of the attention-seeking behaviour. Furthermore, the youngest child has a number of role models who each have their own personalities and ideologies. He or she may find it confusing to identify with such a variety of role models and should the child not be able to assert his or her own character, he or she may resort to the abuse of alcohol intake. Prolonged intake of alcohol results in psychological and physiological dependence (Simons-Morton et al., 2001).

2.3.9 Parental modelling

Since teenagers aspire to adulthood, they often adopt the drinking styles and drinking patterns of their parents and other important adults in their lives, including societal heroes. Many parents expect their children to learn how to drink and to handle alcohol in an adult manner, but do not teach them how. Many teens want to be like their heroes, if they do drink they also drink because they want to be like them in each and every way possible (Mogotsi, 2011).

Youth who have family members with a history of substance abuse are at risk for alcohol and drug abuse. If an adolescent has grown up in a household where one or both parents abuses alcohol, it might seem normal or an acceptable behaviour to him or her. They also have more access to alcohol if their parents drink. Children model their behaviour on that of their parents. Parents who are heavy drinkers act as models for their children, who in turn become heavy drinkers and children of alcoholics are more likely to become alcoholics themselves Bezuidenhout (2006).

2.3.10 Socio - cultural influences

According to Woodward (1981) several factors contribute to an individual's decision to drink or not drink on any given occasion. The most obvious are those in the immediate environment such as the nature of the occasion, an individual's personal interest and physical and mental state and the degree of peer pressure. In addition to these are socio-cultural influences including historical and contemporary factors which contribute to an individual's attitudes, beliefs and values regarding the use of alcohol. These may include religious, ethnic and family customs. When an individual with a certain set of beliefs and expectations about drinking comes into contact with individuals who have different definitions of alcohol use, the individual may be put into a situation which demands social drinking at a level that he or she previously would have considered alcohol misuse (Donovan, 2002).

2.3.11 Stress and life events

Grave (2000) posits that many women who are alcoholics give premenstrual depression as a reason for their drinking. Furthermore, an increasing number of women report an increased intake of alcohol during their menses. Adolescents receiving treatment for alcohol and or drug abuse have pointed out that undesirable life events were the cause of their drinking behaviour. It was noted in the research that there was a relationship between heavy drinking and financial, academic and family stressors amongst teenagers between the ages of 11-17

years. According to Donovan (2002) high rates of substance abuse are associated with negative life experiences or events such as parents getting divorced, conflicts between parents and, in females the onset of menstruation. Furthermore, it is reported that drug use is related to the experience of stressful life events. Individuals who have not learned coping strategies to deal with stress may resort to heavy consumption of alcohol.

2.3.12 Self-Medication

Females who believe that drinking alcohol alleviates boredom or helps them deal with sadness or depression are reported to use more alcohol than those who do not. Females appear to be attuned to the self-medicating powers of alcohol, as early as junior school. Females are more likely than males to believe that the positive effect of alcohol is its ability to alleviate bad moods or feelings. It is also reported that females who drink heavily are more likely than males to attribute their alcohol use to the desire to escape their problems, anger or frustration with life events (Substance Abuse and Mental Health Services Administration, 2002).

2.3.13 Lack of support

According Donovan (2002), adolescents who have a hard time building and maintaining healthy relationships might turn to alcohol. An adolescent with absent parents, few friends and trouble meeting new people may feel lonely and become depressed. Many adolescents that don't have a social support system develop a low self-esteem. Adolescents that experience abusive romantic relationships or heartbreak usually begin drinking to numb the emotional pain. Parent drinking behaviour and favourable attitudes about drinking have been positively associated with adolescents initiating and continuing drinking. Lack of parental support, monitoring and communication has been significantly predicted adolescent drinking and alcohol related problems (Ellickson, 1996).

2.3.14 Concerns about weight and appearance

Females who perceive themselves as being overweight, or who are actively trying to lose weight, or who engage in unhealthy dieting behaviours drink more alcohol than females with healthier weight related attitudes and behaviours (Substance Abuse and Mental Health Services Administration, 2002). As more females are becoming concerned about their weight due to media portrayals of very thin women, this problem is becoming very problematic (Mogotsi, 2011).

2.4. Effects of alcohol

2.4.1 Cardiovascular disease

Heavy drinking, especially binge drinking makes platelets more likely to clump together into blood clots, which can lead to heart attack or stroke. Heavy drinking can also cause cardiomyopathy, a potentially deadly condition in which the heart muscle weakens and eventually fails, as well as the heart rhythm abnormalities atria and ventricular fibrillation. Atrial fibrillation, in which the heart's upper chambers (atria) twitch chaotically rather than constrict rhythmically, can cause blood clots that can initiate a stroke. Ventricular fibrillation causes chaotic twitching in the heart's main pumping chambers (ventricles). It causes rapid loss of consciousness and in the absence of immediate treatment sudden death (Sinkiewicz & Weglarz, 2009).

2.4.2 High blood pressure

Alcohol can disrupt the sympathetic nervous system, which among other things, controls the constriction and dilation of blood vessels in response to stress, temperature and/or exertion. Heavy drinking and binge drinking in particular can cause blood pressure to rise. Over time this effect can become chronic. High blood pressure can lead to many other health problems including kidney disease, heart disease and strokes (Stevenson, 2005).

2.4.3 Cirrhosis

Alcohol is toxic to liver cells and many heavy drinkers develop cirrhosis, a sometimes lethal condition in which the liver is so heavily scarred that it is unable to function. However, it is hard to predict which drinkers will develop cirrhosis. Some people who drink large amounts of alcohol don’t get cirrhosis and some who don't drink very much do get it. Women, because of their innate physiology, are vulnerable to developing cirrhosis (Sinkiewicz & Weglarz, 2009).

2.4.4 Violence

Adolescent girls who drink are at increased risk of being victims of dating violence such as shoving, kicking, punching and rape. Alcohol also puts young girls at risk for exhibiting violent behaviour. Girls who binge drink are more likely than their non-drinking peers to be involved in physical fights (Kelly, Lynch, Donovan, & Clark, 2001).

Markowits (2006) posits that alcohol consumption, especially at harmful and hazardous levels, is a major contributor to the occurrence of intimate partner violence and links between the two are many. Intimate partner violence refers to any behaviour within an intimate relationship that causes physical, psychological or sexual harm to those in that relationship. It includes acts of physical aggression (slapping, hitting, kicking or beating), psychological abuse (intimidation, constant belittling or humiliation), forced sexual intercourse or any other controlling behaviour (isolating a person from family and friends, monitoring their movements and restricting access to information or assistance).

Sexual assault, including rape, occurs most commonly among women in late adolescence and early adulthood, usually within the context of a date. Approximately 10 percent of female high school students reported having been raped. Research suggests that alcohol use by the offender, the victim or both, increases the likelihood of sexual assault by a male acquaintance (Malik, Sorenson, & Aneshensel, 1997). In South Africa many studies have shown the link between domestic violence, rape and other types of assault (Mogotsi, 2011).

2.4.5 Unsafe Sex

Alcohol use is prevalent in South Africa and is associated with higher risk for human immunodeficiency virus (HIV) transmission. Alcohol use is one of the best predictors of risky sexual activity and risky sexual behaviours. Those who drink are more likely to have sexual intercourse at an earlier age and to have sex with more partners than those who do not drink. Adolescent females, who drink, are more likely than girls who do not drink, to have unprotected sex which puts them at risk for unplanned pregnancies and sexually transmitted diseases, including AIDS (Malik, Sorenson, & Aneshensel, 1997). Heavy alcohol consumption is thus a major health concern in South Africa. Recent research revealed that there were high levels of alcohol consumptions and unprotected sex among people who engaged in casual relationships (Nqojane, 2009; Setlalentoa, Pisa, Thekisho, Ryk & loots, 2010).

2.4.6 Suicide

Alcohol use interacts with conditions such as depression and stress which contribute to suicide, the third leading cause of death amongst people between the ages of 14 and 25 years globally. In one study, 37 percent of adolescent females who drank heavily reported

attempting suicide, compared with 11 percent who did not drink alcohol **(**Kelly, Lynch, Donovan, & Clark, 2001).

According to Stevenson (2005) about 90% of people in western countries use alcohol at some time in their lives and 40% experience temporary or permanent alcohol related impairment at some point. Impulsive and aggressive behaviours are strongly implicated in suicidal behaviour. Impulsivity has been related to suicidal and self-destructive behaviour within different conditions including alcohol and substance use disorder, mood disorder and Borderline Personality Disorder.

2.4.7 Foetal Alcohol Syndrome (FAS)

According to Stevenson (2005) Foetal Alcohol Syndrome (FAS) is an irreversible condition associated with excessive consumption of alcohol by pregnant women and is, therefore, completely preventable. Each and every case of FAS is unnecessary. Victims suffer serious physical deformities and often mental deficiencies which are not reversible. Alcoholic females usually become pregnant by error and continue to consume alcohol heavily throughout their pregnancies (usually in combination with smoking and often illegal drug use).

2.4.8 Psychological well-being

While the individual is drinking alcohol at a specific time and place the individual is, at first, able to control his or her desired limit (of alcohol intake). When the use of the addicting substance can no longer be controlled, and the individual cannot control his or her craving, substance addiction sets in. Many individuals do not realise the full consequences of their addiction, while others may experience stress and anxiety. These stressors may cause the individual to increase his or her consumption of alcohol in order to cope with their lives, which gives a temporary relief, thus they drink again and the cycle continues (Bezuidenhout, 2006). When an individual attempts to stop drinking alcohol and fails he or she often becomes depressed. Uncontrollable depression may eventually lead to suicidal behaviour(s). When an individual becomes addicted they are scared of being labelled an addict which increases their tendency to withdraw from interaction with others, increasing drinking behaviours (Bezuidenhout, 2006).

2.4.9 Interpersonal relationships

According to Kumpulainen and Roine (2002) as alcohol addiction becomes more prominent and begins to control the life of the individual, there is a tendency to withdraw from all relationships with others. The individual finds it difficult to simultaneously maintain and satisfy the need for alcohol and to continue with intra and extra familial relationships. Many addicts find it difficult to cope with the expectations of their families as their alcohol dependence becomes more prominent. Bezuidenhout (2006) believes that conflicts between spouses may emerge and eventually lead to one or both of the married partners exhibiting violent behaviours. Continuous conflict may result in one parent leaving the home or filing for divorce. Adolescents and teenagers who are addicted to alcohol may also experience aggressive behaviour, resulting in their leaving the home and committing or contemplating suicide.

2.4.10 Cognitive ability

According to Cargiulo (2007) the use of addictive substances over a long period of time impairs the memory and problem solving abilities of the individual. This has a negative effect on the individual's scholastic and other academic involvement, work life, decision making and social life. Their reasoning ability is impaired and they are unable to make responsible decisions. Delirium tremens is a severe form of alcohol withdrawal that involves sudden and severe mental or nervous system changes. It is a condition, commonly referred to as the DT's where alcoholics who are trying to give up alcohol experience tremors and hallucinations (Mogotsi, 2011).

2.4.11 Economic and future prospects of drinkers

Individuals whose lives become alcohol or drug centred find it difficult to keep their jobs. Once their work peers and supervisors know the nature of the problem it decreases their opportunity for promotion or results in their losing their work. This situation has psychological, social, and economic consequences for the individual, and if married, for his or her family. In the case of young people, an individual who is identified as an addict could be asked to leave their school voluntarily or could be expelled. This has consequences for their future life prospects and the human resources of society (Stevenson, 2005).

2.4.12 Role expectations and general behaviour

According to Woodward (1981) the behaviour of individuals who have been abusing alcohol for a long period tends to change, they tend to become aggressive, moody, uncooperative, disinterested in their personal hygiene and their future. Parents who are addicted find it difficult to perform their role as parents and as marriage partners. This has consequences for the family as a whole and may result in the family becoming highly dysfunctional. Divorce may occur when the situation in the home and the behaviour of the partners can no longer be tolerated. Bezuidenhout (2006) observes that adolescents who abuse substances or are addicted to them often run away from home. This is mostly evident in homes in which the parents are not interested in their children's dilemma at not being able to handle the situation constructively.

2.4.13 Sleep

There are five different stages of sleep, stage one is when we are preparing to drift off we go through Alpha and Theta rhythms and have a period of dreaminess almost like daydreaming except that we are beginning to fall asleep, this usually last for around five to ten minutes. In stage two the body starts to produce very short periods of rapid rhythmic brain wave activity known as sleep spindles. The body temperature starts to drop and the heart rate slows down. Stage three, involves deep slow brain waves, known as delta waves, beginning to emerge. This stage is a transitional period between light sleep and very deep sleep. Stage four is when the delta sleep waves result in a very deep sleep. Stage five known as REM (Rapid Eye Movement) is characterised by rapid eye movement, increased respiration rates and increased brain activity. Essentially, the brain becomes more active when your muscles become more relaxed (Walcutt, 2000).

Chronic use of alcohol to induce sleep can lead to insomnia. Frequent moving between sleep stages occurs, with awakenings due to headaches and diaphoresis (excessive sweating). Stopping chronic alcohol abuse can also lead to profound disturbances of sleep with vivid dreams. Chronic alcohol abuse is associated with suppression of REM sleep and REM sleep fragmentation. During alcohol withdrawal REM sleep is typically exaggerated as part of a rebound effect (Cargiulo, 2007).

2.5 Summary

This chapter focused on relevant literature pertaining to the use of alcohol and alcohol abuse. It focused on alcohol use and abuse in developed and underdeveloped. The use of alcohol amongst the youth in various countries was also addressed. It was indicated that alcohol use can start from early age and is influenced by different factors such as influence from friends, curiosity and family problems. Over use of alcohol and the various physiological and psychological issues were also noted. The following chapter gives an overview of the theoretical framework for the study.

CHAPTER 3: THEORETICAL FRAMEWORK FOR THE STUDY

3.1 Introduction

This chapter focuses on the theoretical framework that was used to guide the study. The framework being used is the Protection Motivation Theory (PMT). It consists of four components, which underpin studies on health related behaviours, which are listed below.

3.2 The Protection Motivation Theory (PMT)

The Protection Motivation Theory (PMT) will be used as a framework with which to guide the study and report the research results. The four components of the Protection Motivation Theory are as follows.

1. Pre – contemplation – people enter a stage when change is not really considered in a serious manner.
2. Contemplation – people become aware of the benefits of change.
3. Preparation – individuals begin to make changes towards a better lifestyle.
4. Action – direct action is taken in terms of what is perceived as a positive change (Monat & Lazarus, 1991).

The PMT was created by Rogers (1975) to help clarify the concept of fear. It suggests that we protect ourselves based on four factors: the perceived severity of a threatening events, the perceived probability of the occurrence, or vulnerability, the efficacy of the recommended preventive behaviour, and perceived self-efficacy or self-confidence of an individual. In terms of the PMT a threat appraisal assesses the severity of the situation and examines how serious the situation is. The coping appraisal is how the individual responds to any given situation. A coping appraisal consists of an individual's self-confidence or self-efficacy mechanisms. This revolves around the individual's expectancy that carrying out recommendations can remove the threat. Self-efficacy or self-confidence is the belief in an individual's ability to execute the recommended courses of action successfully. PMT is a theoretical model that explains why people engage in unhealthy behaviours and offers suggestions for changing those behaviours (Monat & Lazarus, 1991).

Nqojane (2009) used PMT to underpin her investigation into tertiary education students` attitudes and perceptions towards condom use during the HIV/Aids pandemic. This study focused on risk behaviour, stigmatisation, social perceptions, Voluntary Counselling and HIV Testing (VCT). It used a questionnaire underpinned by the PMT. Overall the findings seem to indicate that students have knowledge but this does not always translate into actual behaviours. Students who drink alcohol were found to be inclined to more risky health behaviours than students who did not.

In a study by Mogotsi (2011) it was reported that although participants wanted to stop drinking, they put it off and thought they were not really at risk for serious illness. They were not motivated to change their sexual behaviours for instance, the non-use of condoms after over-indulging in alcohol. However, they did understand that they should use a condom not only to prevent pregnancy but to prevent HIV and other sexually transmitted infections (STI's). Their appraisal of the threat tended to be unrealistic (they were not at risk) and they were not motivated to change any of their negative behaviours. This resulted in a cognitive dissonance where there is a discrepancy between what respondents know to be the right way to act (for instance, wearing condoms every time they have sex and how they act and/or not drinking and driving). They coped with threats in a negative way by either drinking alcohol to excess or ignoring reality.

3.3 Summary

The PMT is underpinned by the concept that protection motivation is fundamentally, an evaluation of the threat appraisal and the coping appraisal. The threat appraisal relates to the estimation of the chance of contracting a disease (vulnerability) and it estimates the significance of a disease (severity). Coping appraisal entails response efficacy and self-efficacy. Response efficacy is the individual's expectancy that carrying out recommendations can eliminate the threat. Self-efficacy is the conviction in an individual's ability to implement the recommended courses of action positively. Protection motivation is thus a mediating variable whose function is to arouse, sustain and direct protective health behaviours (Boer & Seydel, 1996).

CHAPTER 4: RESEARCH METHODOLOGY

4.1 Introduction

The purpose of the study is to investigate alcohol use amongst female undergraduate students at the University of Limpopo (Turfloop campus) with the aim of providing the institution with knowledge of drinking pattern amongst females registered at the institution.

4.2 Research design

The research will use a cross sectional survey design in order to obtain data for this exploratory study. Although the research is mainly quantitative in nature five open ended questions will be added to the survey to add a more holistic element to the investigation. This is consistent with triangulation of research methods. The research investigation will use a quantitative approach as quantitative research is a process that is systematic and objective in using numerical data from a selected sub-group of a population (Maree, 2009).

4.3 Area of the study

The study will take place at the University of Limpopo (Turfloop campus) which is approximately 30km East of Polokwane, in the Capricorn District of Limpopo Province.

4.4 Description of the population

The population under scrutiny is the entire female undergraduate population.

4.4.1 Description of the sample

As the researcher had limited resources and gaining access to the entire female undergraduate population at the University of Limpopo (Turfloop campus) would be difficult, it was decided to use registered female students in the undergraduate 1st, 2nd and 3rd psychology classes. This population was accessible to the researcher.

4.5 Sampling Method

Purposive sampling was used for the study. This method signifies that the sampling that is undertaken is linked to a series of planned choices made by the researcher. In purposive sampling the sample is tied to the objectives of the study and the sample, which is chosen by the researcher, must have the required characteristics of the population mandatory to the study. The study will therefore consist of participants who are female and undergraduates. In the present study psychology undergraduates who are willing to participate in the survey. According to the Office of the Registrar at the University of Limpopo (Turfloop campus) the number of female psychology undergraduate students registered is +- 700, registered for 1st, 2nd, and 3rd year psychology modules (Personal communication, Office of the Registrar, January, 2013). As, according to Welman, Kruger and Mitchell (2005) the attrition rates or non-return of questionnaires or incomplete questionnaires is high (up to 50 – 60% and more) the study sample will include all female psychology undergraduates registered for 1st, 2nd and 3rd year psychology. It was expected that by giving out survey questionnaires to the entire undergraduate psychology population that at least 200 properly completed questionnaires would be returned.

4.6 Data collection

Maree (2009) states that self-report surveys are a set of questions which are completed by the respondents at their own pace. The researcher obtained permission from the 1st, 2nd and 3rd year psychology undergraduate coordinators to hand out questionnaires in class to female students. These students were asked to return the completed questionnaires to a marked box in the department of psychology outside the supervisor's office. The box was sealed with a slit in the top for the questionnaires to be dropped into. It should take respondents no longer than 15 – 25 minutes of their own time to complete the questionnaire. After the questionnaires were returned the researcher checked questionnaires for accuracy and discarded any questionnaires that were not filled in properly.

4.6.1 Survey Questionnaire

A survey (See Appendix A) using four sections was used. Surveys are one of the most commonly used approaches for assessing the prevalence of high-risk drinking and related behaviours and the consequences of alcohol consumption. The first section elicited demographics, which included information about the respondents' age and religion as it was

assumed that people who are religious are more likely to go to church and follow specific moral guidelines and will be therefore less likely to abuse alcohol (Mogotsi, 2011). The main section of the survey used the Michigan Alcohol Screening Test- revised (MAST-R). The test was developed by Selzer (1971). It is one of the most widely used measures for assessing alcohol abuse. The measure is a 22-item questionnaire designed to provide a rapid and effective screening for alcohol-related problems and alcoholism. The third section of the questionnaire used five questions underpinned by the Protection Motivation Theory (PMT) adapted from Mogotsi (2011). The fourth section is the Alcohol Use Disorders Identification self-report test which consists of 10 questions about alcohol use. The final section of the questionnaire had five open-ended questions where respondents were able to express their own opinion and/or add any comments freely.

4.7 Data analysis

4.7.1 Analysis of quantitative data

The study is exploratory and quantitative in nature therefore the following data analysis methods were used. Descriptive statistics were used to analyse data using frequency tables and histograms as they give a clear overall picture of the data (Welman, Kruger & Mitchell, 2005). The chi square (X^2) statistic was used to investigate whether distributions of categorical variables differ from one another or to determine whether there is a significant difference between the expected frequencies and the observed frequencies in one or more categories (Greenwood & Nikulin, 1996). For instance, using this mode of analysis it was possible to see if there is a significant difference in drinking trends between 1st, 2nd and 3rd year female psychology students.

4.7.2 Analysis of qualitative data

Data from the five open-ended questions were analysed using Thematic Content Analysis (TCA) which is a descriptive presentation of qualitative data. It is a conventional practice in qualitative research which involves searching through data to identify any recurrent patterns or themes. A theme is a cluster of linked categories conveying similar meanings and usually emerges through the inductive analytic process which characterizes TCA (Russell – Bernard, 2000).

The following steps were followed to analyse the data. Firstly, immersion with the data followed by familiarisation with the data so that the researcher gets to know the data intimately. Then the data were put into categories firstly major categories and then minor categories. The next step was to group the categories into themes which reflect the transcribed data. The researcher had to go through all the steps again to check her objectivity all the time reflecting on the process to ensure objectivity (Terre Blanche, Durrheim & Painter, 2006).

4.8 Research propositions

The study has the following research propositions based on a reading of relevant literature.

- Undergraduate female psychology students registered at the University of Limpopo (Turfloop campus) report a negative impact on their social relationships as a result of drinking alcohol.
- Undergraduate female psychology students registered at the University of Limpopo (Turfloop campus) experience negative effects on their academic performance because of drinking alcohol.
- There will be no significant difference in female psychology undergraduate students registered at the University of Limpopo (Turfloop campus) drinking patterns across year levels.

4.9 Bias

According to Babbie and Mouton (2009) bias refers to results being misrepresented in a particular direction. A standardised measure is used to ensure that there are no ambiguous or badly defined questions. The questions adapted from Mogotsi (2011) are a minor part of the survey and have been used previously in a study in which the questionnaire was piloted thus ensuring the questions were not ambiguous or badly defined in anyway. The research is biased in terms of the sample as only females are included. However, this sample meets the needs of the study. As the sample size is large (+- 700) sampling error was reduced.

4.10 Reliability and validity

Babbie and Mouton (2001) state that reliability is the extent to which an instrument measures what it is supposed to measure while results remain consistent. The Michigan Alcohol Screening Test- revised (MAST-R) is a standardized instrument which went through authentic testing which ensures that it is reliable and valid. The MAST-R reported alpha coefficients from nine different studies ranging from .83 to .95. Shields, Howell, Potter and Weiss (2007) obtained a test-retest reliability coefficient of .84 for an average 4.8 month retest interval, with a sample of 91 participants.

Validity refers to the extent to which an empirical measure adequately reflects the real meaning of the concept under consideration (Babbie & Mouton, 2001). The MAST-R has been used periodically to determine the validity of the content of the questionnaire and has been reviewed and verified through much research and updated to increase its validity (Storgaard, Nielsen & Gluud, 1994). Meta-analytic methods provide a framework around which an inquiry into MAST and score reliability was completed. Of the 470 measurement opportunities observed between 1971 and 2005 weighted reliability estimates centred on .80 suggesting that the MAST-R generally produces scores of adequate reliability for most research purpose (Shields, Howell, Potter & Weiss, 2007). The open ended questions added as a separate part of the survey (Mogotsi, 2011) have face validity and are used as the MAST-R standardised questionnaire does not meet all the requirements the research needs.

4.11 Ethical considerations

The research will be guided by the ethical guide lines of the Discipline of Psychology as laid down by the Health Professions Council of South Africa (Psychology Board). In terms of informed consent respondents were informed about purpose of the study and how the information gathered by means of a covering letter attached to the survey (See Appendix B). The names or identity of the respondents were not required on the survey. However, respondents will sign a consent form which only the researcher and supervisor will see. They remained anonymous in order to comply with requirements of confidentiality. The researcher did not deceive the participants and explained the true nature of the study honestly and explained any risks in the covering letter. The researcher informed the respondents that there were no material benefits to be gained by participating in the study. Respondents were not forced to participate in the study, they were informed that was voluntary so they could decide

if they wanted to fill in the survey questionnaire and return it or not. Respondents will be told (the University of Limpopo (Turfloop campus ethical consent forms) that if they felt uncomfortable in any way after completing or trying to complete the survey they could contact the researcher or the supervisor for an appropriate de-briefing or referral.

4.12 Summary

This chapter discussed the research methodology used in this study. It explained the research design that was selected for the purpose of the study. It further explained the rationale for the research population and sample that was included in the study. It also clarified the data collection and analysis procedures. The survey tools used to collect the information were named and described. The chapter further explained issues related to reliability, validity and bias related to the research. Ethical considerations related to the study were also included. The following chapter presents the research results and analysis of data.

CHAPTER 5: STUDY RESULTS AND ANALYSIS

5.1 Introduction

This chapter will present the results of the study. The study demographics will be presented first in section A. Secondly Section B, will be presented with results from the Michigan Alcohol Screening Test- revised (MAST-R). Thirdly, Section C will be presented which deals with changes to drinking patterns. Fourthly, Section D will be presented with results from the Alcohol Use Disorders Identification Self Report Test. Lastly, Section E is presented which consists of five open ended questions which are designed to elicit the participants views about the drinking of alcohol. The final number of completed questionnaires handed in, which make up the study sample, is 130 which is 19% of the 1st, 2nd and 3rd year female undergraduate psychology population (700). Of the 130 female respondents who participated by completing the questionnaire, 48 (37 %) were first year, 40 (31%) second year and 42 (32%) third year students.

5.2 Section A: Demographics

This section focuses on the study demographics and is presented using frequency tables.

Frequency table 1: Age

	Frequency	**Percent (%)**
18-21	73	56.2
22-35	57	43.8
Total	130	100%

Frequency table 1 indicates that of the 130 respondents, 73 (56.2%) are aged between 18 and 21 years old, 57 (43.8.0%) are aged between 22 and 35 years old.

Frequency table 2: Religion

	Frequency	Percent (%)
Christian	115	88.5
Non-religious	15	11.5
Total	130	100.0

Frequency table 2 indicates that of the 130 respondents, 115 (88.5%) are Christians and 15 (11.5%) are not religious

Frequency table 3: Level (year) of study

	Frequency	Percent (%)
First year	48	37
Second year	40	31
Third year	42	32
Total	130	100.0

Frequency table 3 indicates that forty eight (48) respondents are first years, 40 second years and 42 respondents are third year (level) undergraduate students.

5.3 Section B: Michigan Alcohol Screening Test- revised (MAST-R)

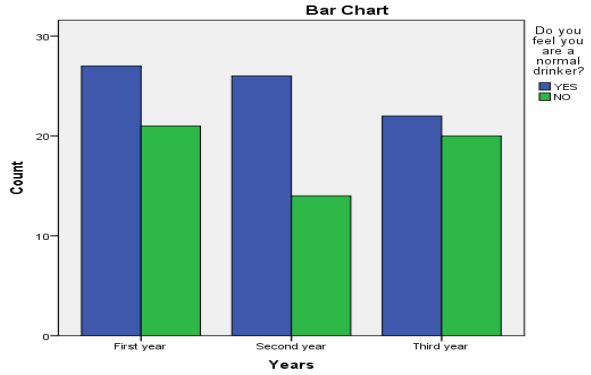
The MAST-R questionnaire was used to assess alcohol use and abuse amongst female students. The measure is a 22-item questionnaire designed to provide a rapid and effective screening for alcohol-related problems and alcoholism. Cross tabulations and bar graphs will be used to present the data for clarity and ease of interpretation. The bar graphs presented as figures will show the yes and no answers that respondents gave across all levels. A chi square test will be used to see if there is a relationship between the three categorical variables.

Key to the figures: The columns in the figure that represent YES are the first columns in each year level and the column that represents NO is the second column in each year level. The first two columns represent female first year respondents, the second two columns represent second year respondents and the third two columns represent third year female respondents. Yes = All Blue columns and Green = All No columns. The same key is used for all the figures in this section.

Frequency table 4: Do you feel you are a normal drinker?

	Frequency	Yes (%)	No (%)
First year	48	65.0	35.0
Second year	40	56.3	43.8
Third year	42	52.4	47.6

Figure 1: Do you feel you are a normal drinker



In first year 65% indicated that Yes, they were normal drinkers while 35% responded No, they were not. Out of the 40 in second year 56.3% of the respondents answered that they were normal drinkers with 43.8% stating they were not. In third year 52.4% of the participants felt they were normal drinkers while 47.6% responded that they were not. A chi square test was used to see if there is a relationship between three categorical variables, marked effects are significant if p is ≤0.0500. In this case p = 0.496 which implies that there is no statistically significant difference between female respondents, who consider themselves normal drinkers, across different levels of study.

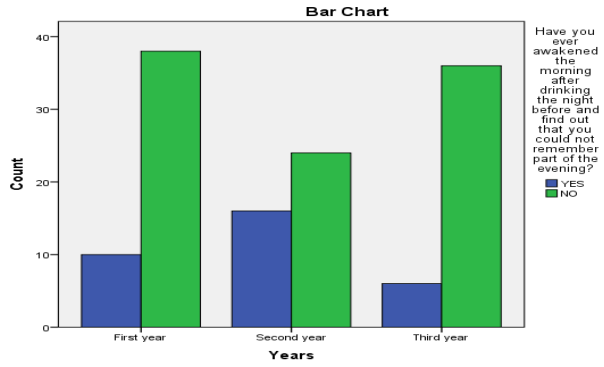
Marked effects significant if p≤0.0500

Chi-square	1.40
p	0.496
df	2

Frequency table 5: Have you ever awakened the morning after drinking the night before and find out that you could not remember part of the evening?

Years	Frequency	Yes (%)	No (%)
First year	48	20.8	79.2
Second year	40	40.0	60.0
Third year	42	14.3	85.7

Figure 2: Have you ever awakened the morning after drinking the night before and find out that you could not remember part of the evening?



In first year 20.8% of students reported that they have awakened in the morning after drinking the night before not remembering what happened the previous night, while 79.2% reported that No this was not the case. In second year, 40% reported to not remembering what happened the night before after drinking, while 60% reported that No, this was not the case. In third year 14.3% of students reported to not remembering what has happened the night before after drinking, while 85.7% reported that No, this was not the case. A chi square test was used to see if there is a relationship between three categorical variables, marked effects are significant if p is ≤0.0500. In this case p = 0.19 which implies that there is no statistically significant difference between female respondents across different levels of study.

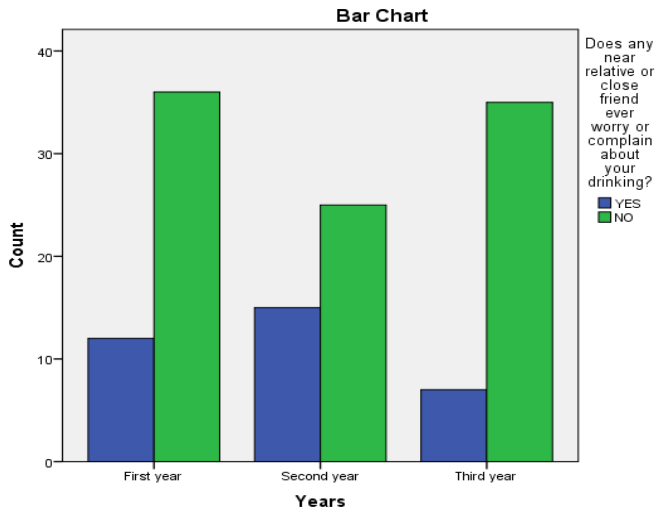
Marked effects significant if p≤0.0500

Chi-square	7.887
p	0.19
df	2

Frequency table 6: Does any near relative or close friend ever worry or complain about your drinking?

Years	Frequency	Yes (%)	No (%)
First year	48	25	75
Second year	40	37.5	62.5
Third year	42	16.7	83.3

Figure 3 Does any near relative or close friend ever worry or complain about your drinking?



In first year 25% indicated that their near relatives and friends have been worried or complained about their drinking while 75% responded No to the question. In second year 37.5% of the respondents stated Yes, they had received complaints and worry about their drinking while 62.5% responded No to the question. In the third year 16.7% once had friends and family worried or complaints about their drinking and 83.3% answered No to the question. A chi square test was used to see if there is a relationship between three categorical variables, marked effects are significant if p is ≤0.0500. In this case p = 0.09 which implies that there is no statistically significant difference between female respondents across different levels of study.

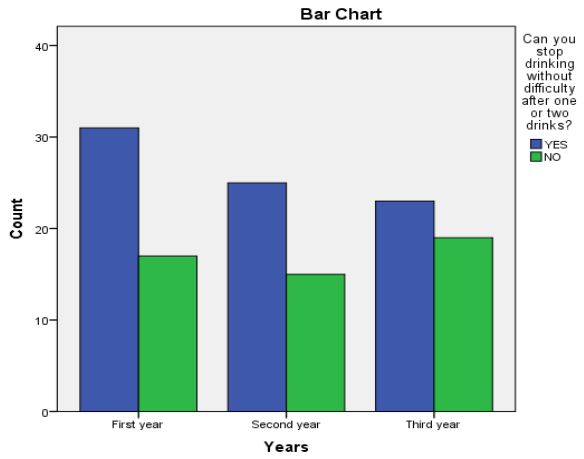
Marked effects significant if p≤0.0500

Chi-square	4.65
p	0.09
df	2

Frequency table 7: Can you stop drinking without difficulty after one or two drinks?

Years	Frequency	Yes%	No%
First year	48	64.6	35.4
Second year	40	62.5	37.5
Third year	42	54.8	45.2

Figure 4: Can you stop drinking without difficulty after one or two drinks?



In first year 64.6% indicated that they can stop drinking without any difficulties after one or two drinks and 35.4% indicated that No they can't stop drinking without difficulties after one or two drinks. In second year 62.5% indicated that they can stop drinking without any difficulties after one or two drinks while 37.5% responded No they can't. In third year 54.8% indicated that they can stop drinking without any difficulties after one or two drinks, while 45.2% indicated that No, they cannot stop drinking without any difficulties after one or two drinks. A chi square test was used to see if there is a relationship between three categorical variables, marked effects are significant if p is ≤0.0500. In this case p = 0.61 which implies that there is no statistically significant difference between female respondents across different levels of study.

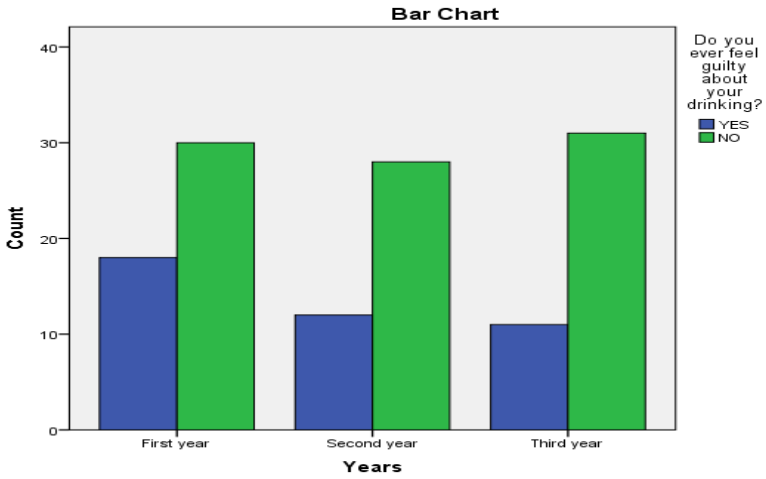
Marked effects significant if p≤0.0500

Chi-square	0.97
p	0.61
df	2

Table 8: Do you ever feel guilty about your drinking?

Years	Frequency	Yes (%)	No (%)
First year	48	37.5	62.5
Second year	40	30	70
Third year	42	26.2	73.8

Figure 5: Do you ever feel guilty about your drinking?



In first year 37.5% indicated that they do not feel guilty about drinking while 62.5% do feel the guilty about drinking. In second year 30% of them feel guilty of drinking, while 70% don't feel guilt about drinking. In the third year 26.2% feel guilty while 73.8% do not feel guilty. A chi square test was used to see if there is a relationship between three categorical variables, marked effects are significant if p is ≤0.0500. In this case p = 0.49 which implies that there is no statistically significant difference about feeling guilty about drinking between female respondents across different levels of study.

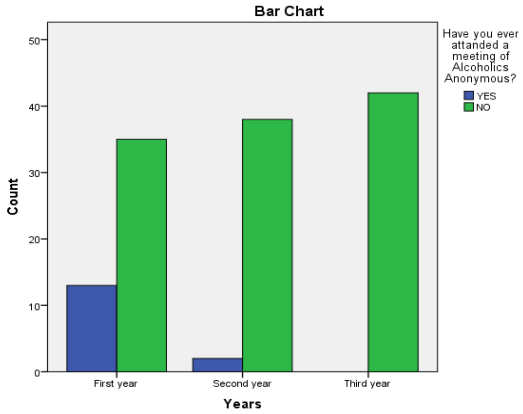
Marked effects significant if p≤0.0500

Chi-square	1.39
p	0.49
df	2

Table 9: Have you ever attended a meeting of Alcoholics Anonymous ?

Years	Frequency	Yes (%)	No (%)
First year	48	27.1	72.9
Second year	40	5	95
Third year	42	0	100

Figure 6: Have you ever attended a meeting of Alcoholics Anonymous?



In first year 27.1% indicated that they have attended a meeting of Alcoholics Anonymous (AA) while 72.9% responded No they have not attended AA. In second year 5% have attended AA's while 95% responded No they have not attended AA. In the third year none of the students had attended an AA meeting. A chi square test was used to see if there is a relationship between three categorical variables, marked effects are significant if p is ≤0.0500. In this case p = 0.00 which implies that there is a statistically significant difference between female respondents across different levels of study. In this case over a quarter of female first years had attended an AA meeting, only 5 from second year and none from third year. This implies that drinking at first year level is more problematic than other levels. It is possible that some of these first years (who have attended AA) will drop out of university or repeat levels.

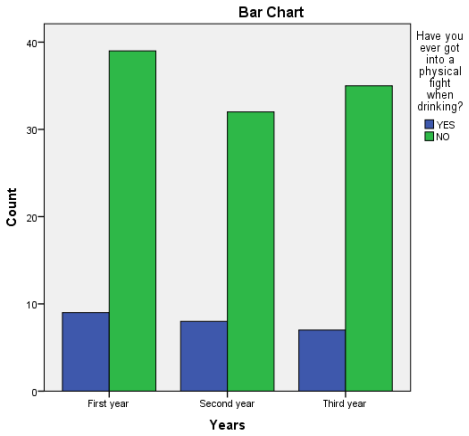
Marked effects significant if p≤0.0500

Chi-square	18.52
p	0.00
df	2

Table 10: Have you ever got into a physical fight when drinking?

Years	Frequency	Yes (%)	No (%)
First year	48	18.8	81.3
Second year	40	20	80
Third year	42	16.7	83.3

Figure 7: Have you ever got into a physical fight when drinking



In first year 18.8% indicated that they have been in a physical fight when drinking while 81.3% have been got into a physical fight. In second year 20% have been in a physical fight when drinking, while 80% have never been in a fight. In the third year 16.7% have been in a physical fight and 83.3% have not. A chi square test was used to see if there is a relationship between three categorical variables, marked effects are significant if p is ≤0.0500. In this case p = 0.93 which implies that there is no statistically significant difference between female respondents across different levels of study, in terms of having a physical fight when drinking.

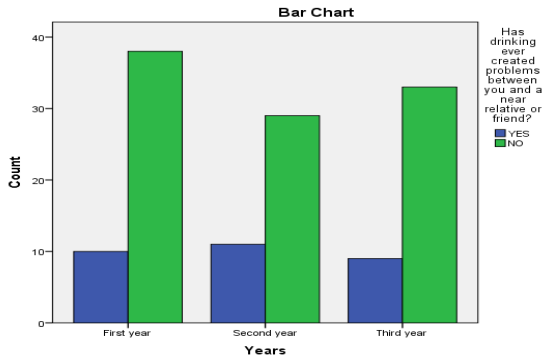
Marked effects significant if p≤0.0500

Chi-square	0.15
p	0.93
df	2

Table 11: Has drinking ever created problems between you and a near relative or friend?

Years	Frequency	Yes %	No %
First year	48	20.8	79.2
Second year	40	27.5	72.5
Third year	42	21.4	78.6

Figure 8: Has drinking ever created problems between you and a near relative or friend?



In first year 20.8% indicated that their drinking has created problems between them and their near relatives or friends, while 79.2% indicated that their drinking has not created problems between them and their near relatives or friends. In second year 27.5% indicated that their drinking has created problems between them and their near relatives or friends, while 72.5% indicated that it has not. In third year 21.4% indicated that their drinking has created problems between them and their near relatives or friends, while 78.6% indicated that is has not. A chi square test was used to see if there is a relationship between three categorical variables, marked effects are significant if p is ≤0.0500. In this case p = 0.73 which implies that there is no statistically significant difference between female respondents across different levels of study, in terms of drinking creating a problem between participants and a near relative or friend.

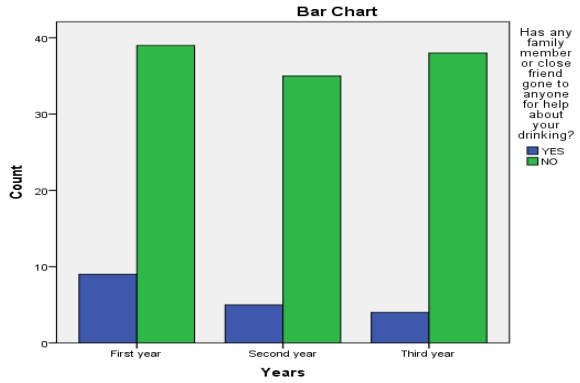
Marked effects significant if p≤0.0500

Chi-square	0.64
p	0.73
df	2

Table 12: Has any family member or close friend gone to anyone for help about your drinking?

Years	Frequency	Yes (%)	No%
First year	48	18.8	81.3
Second year	40	12.5	87.5
Third year	42	9.5	90.5

Figure 9: Has any family member or close friend gone to anyone for help about your drinking?



In first year 18.8% indicated that a family member or close friend had gone to someone for help about their drinking, while 81.3% had not. In second year 12.5% of the sample indicated that a family member or close friend had gone to someone for help about their drinking while 87.5% had not. In the third year 9.5% indicated that a family member or close friend had gone to someone for help about their drinking, while 90.5% had not. A chi square test was used to see if there is a relationship between three categorical variables, marked effects are significant if p is ≤0.0500. In this case p = 0.43 which implies that there is no statistically significant difference between female respondents across different levels of study in terms of whether a close friend or family member had gone to someone for help about their drinking.

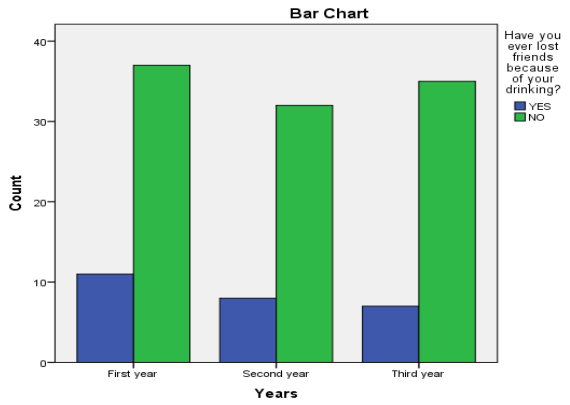
Marked effects significant if p≤0.0500

Chi-square	1.68
p	0.43
df	2

Table 13: Have you ever lost friends because of your drinking?

Years	Frequency	Yes (%)	No (%)
First year	48	22.9	77.1
Second year	40	20	80
Third year	42	16.7	83.3

Figure 10: Have you ever lost friends because of your drinking?



In first year 22.9% indicated that they had lost friends because of drinking while 77.1% had not. In second year 20% indicated that they had lost friends because of drinking while 80% had not. In the third year 16.7% indicated that they had lost friends because of drinking, while 83.3% had not. A chi square test was used to see if there is a relationship between three categorical variables, marked effects are significant if p is ≤0.0500. In this case p = 0.76 which implies that there is no statistically significant difference between female respondents across different levels of study.

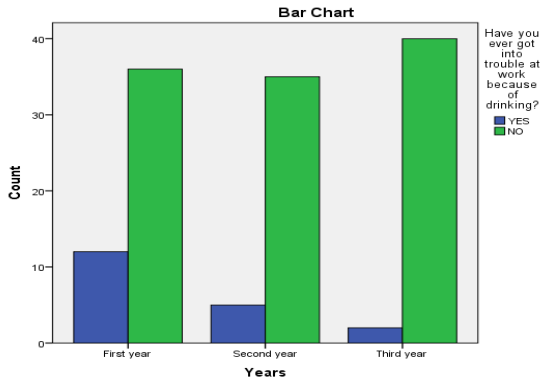
Marked effects significant if p≤0.0500

Chi-square	0.55
p	0.76
df	2

Table 14: Have you ever got into trouble at work (or university) because of drinking?

Years	Frequency	Yes	No
First year	48	25.0	75.0
Second year	40	12.5	87.5
Third year	42	4.8	95.2

Figure 11: Have you ever got into trouble at work (or university) because of drinking?



In first year 25% indicated that they have been in trouble at work or with the university because of their drinking, while 75% indicated they had not. In second year 12.5% indicated that they have got into trouble at work or with the university because of their drinking, while 87.5% indicated that they had not. In third year 4.8% indicated that they have got into trouble at work or with the university because of their drinking, while 95.2% indicated that they had not. A chi square test was used to see if there is a relationship between three categorical variables, marked effects are significant if p is ≤0.0500. In this case p = 0.00 which implies that there is a statistically significant difference between female respondents across different levels of study pertaining to getting into trouble at work (or university) because of drinking. Again more first year students, a quarter of the sample reported to being in trouble because of their work at university, 12.5% at second year and 4.8% at third year. This is an indicator that first year female students, away from home for the first time are more likely to drink.

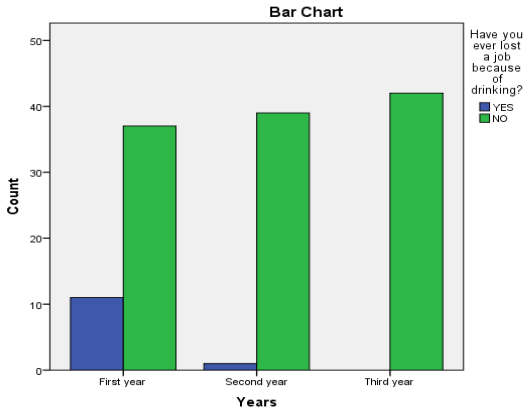
Marked effects significant if p≤0.0500

Chi-square	17.16
p	0.00
df	2

Table 15: Have you ever lost a job because of your drinking?

Years	Frequency	Yes %	No%
First year	48	22.9	77.2
Second year	40	2.5	97.5
Third year	42	0.0	100.0

Figure 12: Have you ever lost a job because of your drinking?



In first year 22.9% indicated that they had lost a job because of their drinking, while 77.2% indicated that they had not. In second year 2.5% indicated that they had lost a job because of their drinking, while 97.5% indicated that they had not. In third year no respondents indicated that they had lost a job because of their drinking. A chi square test was used to see if there is a relationship between three categorical variables, marked effects are significant if p is ≤0.0500. In this case p = 0.00 which implies that there is a statistically significant difference between female respondents across different levels of study pertaining to losing a job because of drinking. It must be noted that no third year students had lost a job (no third years had ever attended an AA meeting either, see Table 9). In first year just under a quarter of the respondents and in second year 2.5% of respondents had lost jobs because of drinking. Again, it seems the most problematic level is first years.

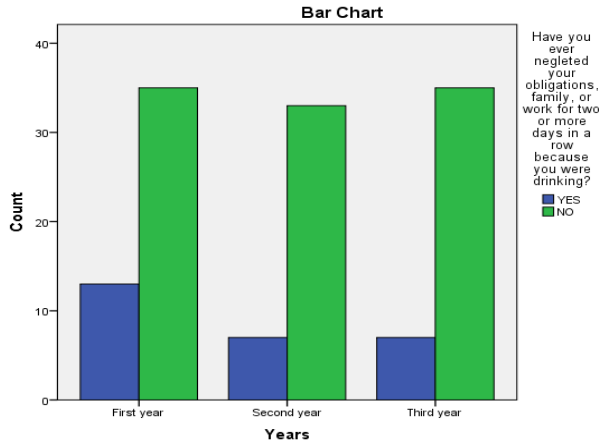
Marked effects significant if p≤0.0500

Chi-square	17.16
p	0.00
df	2

Table 16: Have you ever neglected your obligations, family, or work for two or more days in a row because you were drinking?

Years	Frequency	Yes (%)	No (%)
First year	48	27.1	72.9
Second year	40	17.5	82.5
Third year	42	16.7	83.3

Figure 13: Have you ever neglected your obligations, family, or work for two or more days in a row because you were drinking?



In first year 27.1% indicated that they had neglected their obligations, family, or work for two or more days in a row because they were drinking, while 72.9% had not. In second year 17.5% indicated that they had neglected their obligations, family, or work for two or more days in a row because they were drinking, while 82.5% had not. In the third year 16.7% indicated that they had neglected their obligations, family, or work for two or more days in a row because they were drinking, while 83.3% had not. A chi square test was used to see if there is a relationship between three categorical variables, marked effects are significant if p is ≤0.0500. In this case p = 0.39 which implies that there is no statistically significant difference between female respondents across different levels of study.

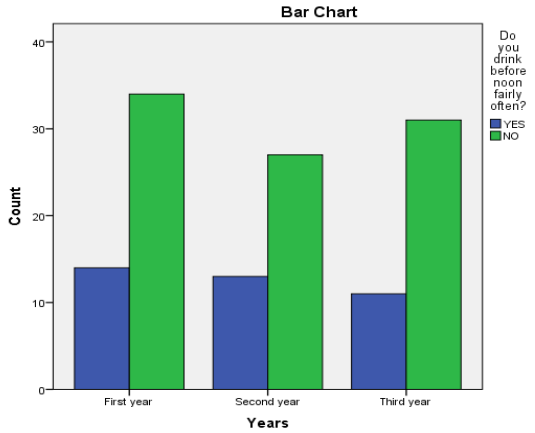
Marked effects significant if p≤0.0500

Chi-square	0.18
p	0.39
df	2

Table 17: Do you drink before noon fairly often?

Years	Frequency	Yes (%)	No (%)
First year	48	29.2	70.8
Second year	40	32.5	67.5
Third year	42	26.2	73.8

Figure 14: Do you drink before noon fairly often?



In first year 29.2% indicated that they do drink before noon fairly often while 70.8% indicated that they do not. In second year 32.5% indicated that they do drink before noon fairly often, while 67.5% do not. In the third year 26.2% indicated that they do drink before noon fairly often, while 73.8% do not. A chi square test was used to see if there is a relationship between three categorical variables, marked effects are significant if p is ≤0.0500. In this case p = 0.82 which implies that there is no statistically significant difference between female respondents drinking before noon, across different levels of study.

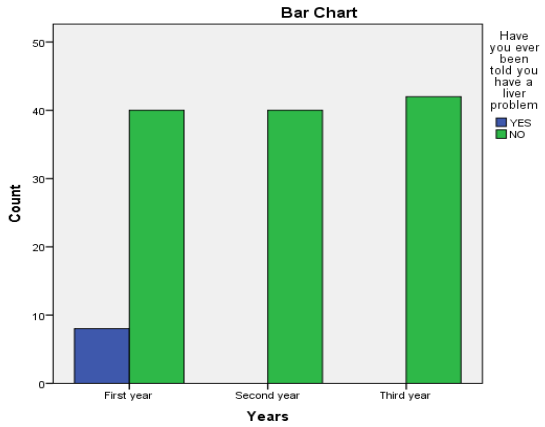
Marked effects significant if p≤0.0500

Chi-square	0.39
p	0.82
df	2

Table 18: Have you ever been told you have a liver problem?

Years	Frequency	Yes %	No %
First year	48	16.7	83.3
Second year	40	0.0	100.0
Third year	42	0.0	100.0

Figure 15: Have you ever been told you have a liver problem?



In first year 16.7% indicated that they have been told that they have liver problems, while 83.3% had not. In second year and third year respondents they all indicated that they have never been told that they have liver problems. A chi square test was used to see if there is a relationship between three categorical variables, marked effects are significant if p is ≤0.0500. In this case p = 0.00 which implies that there is a statistically significant difference between female respondents across different levels of study pertaining to being told they have a liver problem. If these students drink alcohol they could incur further health related problems both physical and psychological.

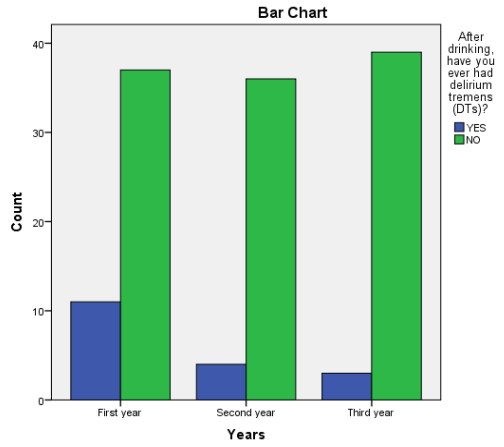
Marked effects significant if p≤0.0500

Chi-square	14.56
p	0.01
df	2

Table 19: After drinking, have you ever had delirium tremens (DTs)?

Years	Frequency	Yes (%)	No (%)
First year	48	22.9	77.1
Second year	40	10.0	90.0
Third year	42	7.1	92.9

Figure 16: After drinking, have you ever had delirium tremens (DTs)?



In first year 22.9% indicated that after drinking they have had delirium tremens (DTs), while 77.1% have not. In second year 10.0% indicated that after drinking they have had delirium tremens (DTs), while 90% have not.. In the third year 7.1% indicated that after drinking they have had delirium tremens (DTs), while 92.9% had not. A chi square test was used to see if there is a relationship between three categorical variables, marked effects are significant if p is ≤0.0500. In this case p = 0.68 which implies that there is no statistically significant difference between female respondents across different levels of study.

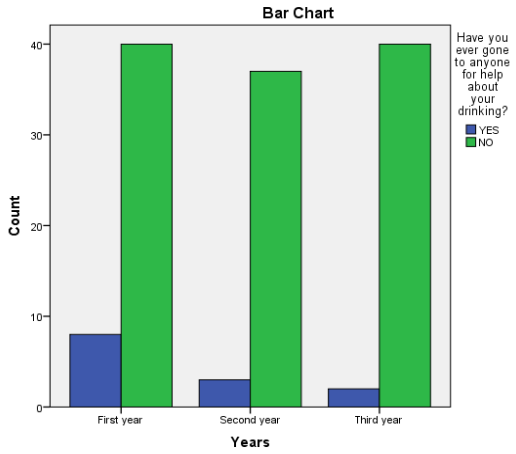
Marked effects significant if p≤0.0500

Chi-square	5.38
p	0.68
df	2

Table 20: Have you ever gone to anyone for help about your drinking?

Years	Frequency	Yes (%)	No (%)
First year	48	16.7	83.3
Second year	40	7.5	92.5
Third year	42	4.8	95.2

Figure 17: Have you ever gone to anyone for help about your drinking?



In first year 16.7% indicated that they had gone to someone for help about their drinking, while 83.3% had not. In second year 7.5% indicated that they had gone to someone for help about their drinking, while 92.5% had not. In the third year 4.8% indicated that they had gone to someone for help about their drinking, while 95.2% had not. A chi square test was used to see if there is a relationship between three categorical variables, marked effects are significant if p is ≤0.0500. In this case p = 0.14 which implies that there is no statistically significant difference between female respondents across different levels of study in terms of seeking help because of drinking.

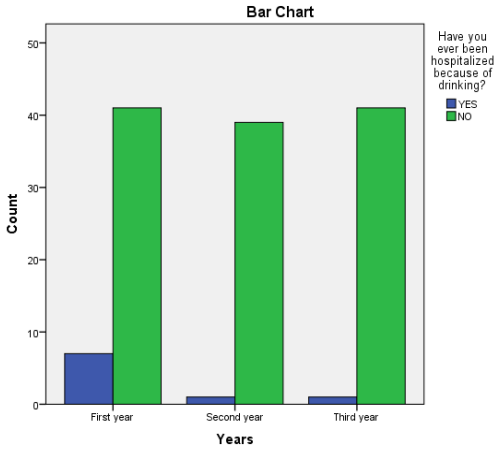
Marked effects significant if p≤0.0500

Chi-square	3.92
p	0.14
df	2

Table 21: Have you ever been hospitalised because of drinking?

Years	Frequency	Yes %	No %
First year	48	14.6	85.4
Second year	40	2.5	97.5
Third year	42	2.4	97.6

Figure 18: Have you ever been hospitalised because of drinking?



In first year 14.6% indicated that they had been hospitalised because of their drinking, while 85.4% indicated that they had not. In second year 2.5% indicated that they had been hospitalised because of their drinking, while 97.5% had not. In third year 2.4% indicated that they had been hospitalized because of their drinking, while 97.6% had not. A chi square test was used to see if there is a relationship between three categorical variables, marked effects are significant if p is ≤0.0500. In this case p = 0.31 which implies that there is no statistically significant difference between female respondents across different levels of study.

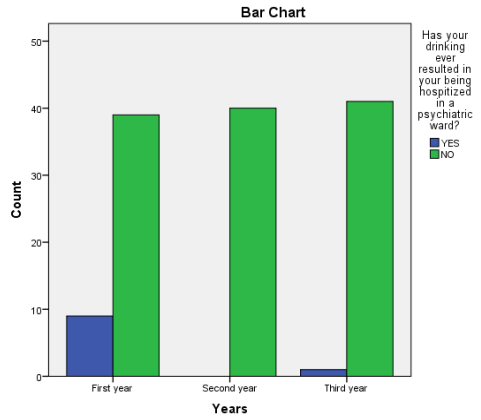
Marked effects significant if p≤0.0500

Chi-square	6.93
p	0.31
df	2

Table 22: Has your drinking ever resulted in your being hospitalised in a psychiatric ward?

Years	Frequency	Yes (%)	No (%)
First year	48	18.8	81.3
Second year	40	0	100
Third year	42	2.4	97.6

Figure 19: Has your drinking ever resulted in your being hospitalised in a psychiatric ward?



In first year 18.8% indicated that they have been hospitalised in a psychiatric ward because of their drinking, while 81.3% indicated that they had not. In second year 100% indicated that they have never been hospitalised in a psychiatric ward because of drinking. In third year 2.4% indicated that they have been hospitalised in a psychiatric ward because of their drinking, while 97.6% indicated that they had not. A chi square test was used to see if there is a relationship between three categorical variables, marked effects are significant if p is ≤0.0500. In this case p = 0.01 which implies that there is a statistically significant difference between female respondents across different levels of study pertaining to having being hospitalised in a psychiatric ward because of drinking. This is quite an alarming statistic as there was a sample of 48 respondents in first year and over 30 of them report to being hospitalised in a psychiatric ward because of their abuse of alcohol, which is 62.5% of the first year sample. This may be as a result of binge drinking and/or taking other illegal substances at the same time. It is also true that drinking alcohol could mediate the onset of a mental health disorder in individuals who have a pre-disposition for that disorder. In second year no participants reported to being hospitalised in a psychiatric ward because o In third year a much smaller number 2.4% reported this however, it may be that this percentage has problems such as binge drinking or mental health problems exacerbated by the drinking of alcohol.

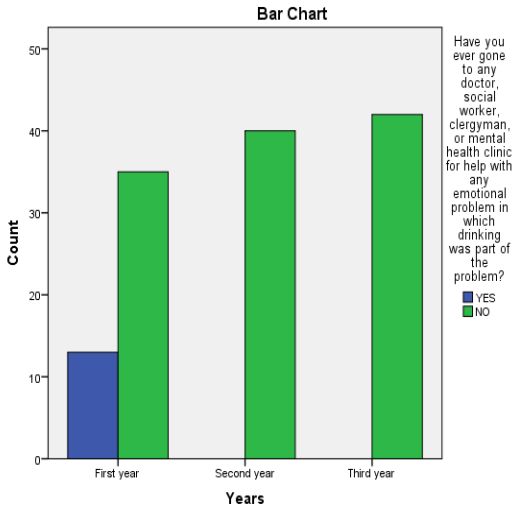
Marked effects significant if p≤0.0500

Chi-square	13.27
p	0.01
df	2

Table 23: Have you ever gone to any doctor, social worker, clergyman, or mental health clinic for help with any emotional problem in which drinking was part of the problem?

Years	**Frequency**	**Yes (%)**	**No (%)**
First year	48	27.1	72.1
Second year	40	0	100
Third year	42	0	100

Figure 20: Have you ever gone to any doctor, social worker, clergyman, or mental health clinic for help with any emotional problem in which drinking was part of the problem?



In first year 27.1% indicated that they have gone to a doctor, social worker, clergyman, or mental health clinic for help with any emotional problem in which drinking was part of the problem, while 72.1% had not. In second year 100% indicated that they have never been to see a doctor, social worker, clergyman, or mental health clinic for help with any emotional issues in which drinking was part of the problem. In the third year 100% indicated that they have never went to any doctor, social worker, clergyman, or mental health clinic for help with any emotional problem in which drinking was part of the problem. A chi square test was used to see if there is a relationship between three categorical variables, marked effects are significant if p is ≤0.0500. In this case p= 0.00 which implies that there is a statistically significant difference between females across the different levels. Over a quarter of first year respondents had sought help because of emotional problems associated with drinking. It appears that first year females in the study have many challenges associated with alcohol consumption, possibly because they are away from caregiver guidance.

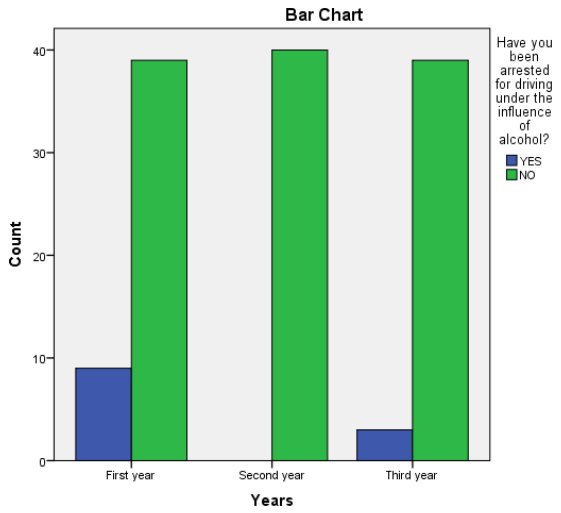
Marked effects significant if p≤0.0500

Chi-square	24.67
p	0.00
df	2

Table 24: Have you been arrested for driving under the influence of alcohol?

Years	Frequency	Yes%	No %
First year	48	18.8	81.2
Second year	40	0.0	100.0
Third year	42	7.1	92.9

Figure 21: Have you been arrested for driving under the influence of alcohol?



In first year 18.8% indicated that they had been arrested for drinking and driving under the influence of alcohol, while 81.2% indicated that they had not. In second year 100.0% indicated that they had not been arrested for drinking and driving under the influence of alcohol. In third year 7.1% indicated that they had been arrested for drinking and driving under the influence of alcohol, while 92.9% indicated that they have never been arrested for drinking and driving under the influence of alcohol. A chi square test was used to see if there is a relationship between three categorical variables, marked effects are significant if p is ≤0.0500. In this case p = 0.00 which implies that there is a statistically significant difference between females across the different year levels. First years (18.8%) and third years (7.1%) had been arrested for drunk driving, again a problematic statistic.

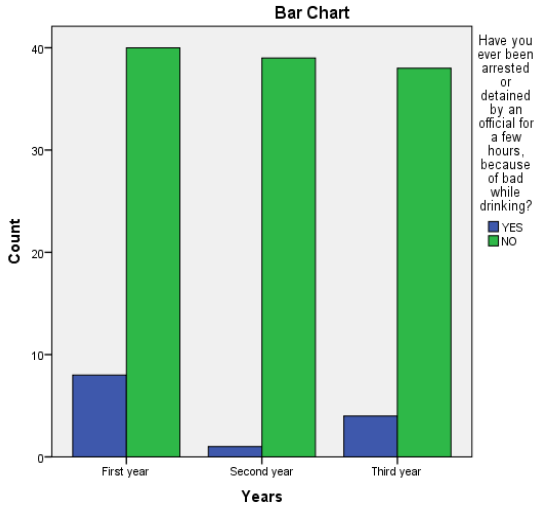
Marked effects significant if p≤0.0500

Chi-square	9.47
p	0.00
df	2

Table 25: Have you ever been arrested or detained by an official for a few hours, because of bad driving while drinking?

Years	Frequency	Yes%	No %
First year	48	16.7	83.3
Second year	40	2.5	97.5
Third year	42	9.5	90.5

Figure 22: Have you ever been arrested or detained by an official for a few hours, because of bad driving while drinking?



In first year 16.7% indicated that they had been arrested or detained by an official for few hours because of bad driving while drinking, while 83.3% indicated that they had not. In second year 2.5% indicated that they have been arrested or detained by an official for few hours because of bad driving while drinking, while 97.5% indicated that they had not. In third year 9.5% indicated that they had been arrested or detained by an official for a few hours because of bad driving while drinking, while 90.5% indicated that they had not. A chi square test was used to see if there is a relationship between three categorical variables, marked effects are significant if p is ≤0.0500. In this case p = 0.01 which implies that there is a

statistically significant difference between females across the different year levels. Again more first years had been arrested or detained for driving badly under the influence (16.7%), however, this time 2.5% of second years and 9.5% of third years were also detained or arrested. Although the majority of students do not report to problems with alcohol it is apparent that some do.

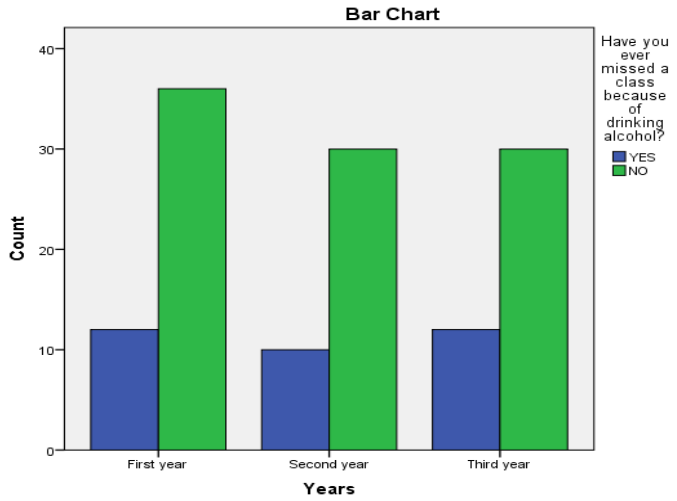
Marked effects significant if $p \leq 0.0500$

Chi-square	0.87
p	0.01
df	2

Table 26: Have you ever missed a class because of drinking alcohol?

Years	**Frequency**	**Yes (%)**	**No (%)**
First year	48	25	75
Second year	40	25	75
Third year	42	28.6	71.4

Figure 23 Have you ever missed a class because of drinking alcohol?



In first year 25% indicated that they had missed a class because of drinking alcohol while 75% had not. In second year 25% indicated that they had missed a class because of drinking alcohol while 75% had not. In the third year 28.6% indicated that they had missed a class because of drinking alcohol and 71.4% had not. A chi square test was used to see if there is a relationship between three categorical variables, marked effects are significant if p is ≤0.0500. In this case p ≤ 0.31 which implies that there is no statistically significant difference between female respondents across different levels of study. A chi square test was used to see if there is a relationship between three categorical variables, marked effects are significant if p is ≤0.0500. In this case p = 0.91 which implies that there is no statistically significant difference between female respondents across different levels of study.

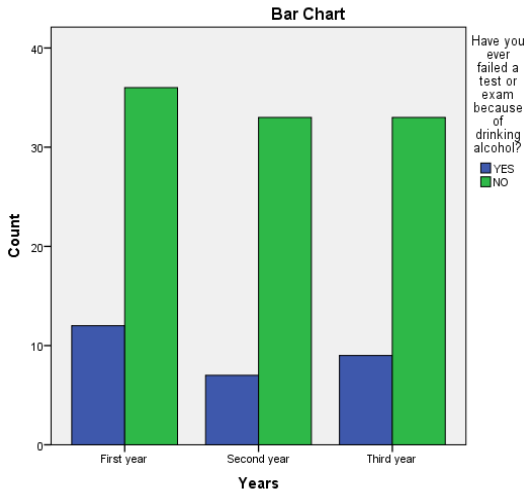
Marked effects significant if p≤0.0500

Chi-square	0.18
p	0.91
df	2

Table 27: Have you ever failed a test or exam because of drinking alcohol?

Years	**Frequency**	**Yes (%)**	**No (%)**
First year	48	25	75
Second year	40	21.4	78.6
Third year	42	21.5	78.5

Figure 24: Have you ever failed a test or exam because of drinking alcohol?



In first year 25% indicated that they had failed a test or exam because of drinking alcohol, while 75% had not. In second year 21.4% indicated that they had failed a test or exam because of drinking alcohol while, 78.6% had not. In the third year 21.5% indicated that they had failed a test or exam because of drinking alcohol, while 78.5% had not. A chi square test was used to see if there is a relationship between three categorical variables, marked effects are significant if p is ≤0.0500. In this case p = 0.69 which implies that there is no statistically significant difference between female respondents across different levels of study, in terms of having ever failed a test or exam because of drinking alcohol.

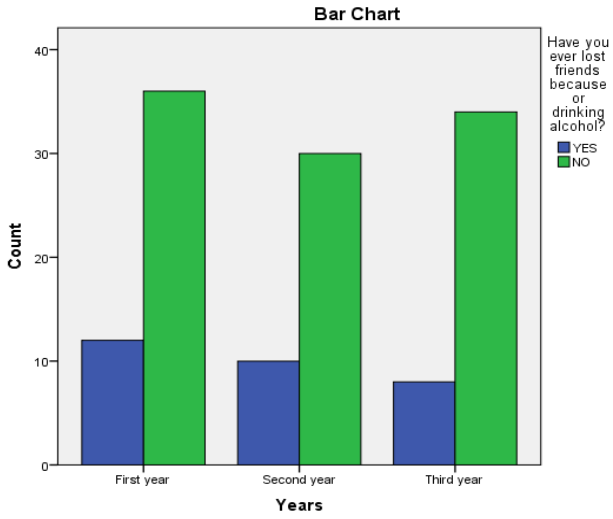
Marked effects significant if p≤0.0500

Chi-square	0.73
p	0.69
df	2

Table 28: Have you ever lost friends because or drinking alcohol?

Years	Frequency	Yes %	No%
First year	48	25.0	75.0
Second year	40	25.0	75.0
Third year	42	19.0	81.0

Figure 25: Have you ever lost friends because or drinking alcohol?



In first year 25% indicated that they had lost friends because of drinking alcohol, while 75% indicated that they had not. In second year 25% indicated that they had lost friends because of drinking alcohol, while 75% indicated that they had not. In third year 19 % indicated that

they had lost friends because of drinking alcohol, while 81% indicated that they had not. A chi square test was used to see if there is a relationship between three categorical variables, marked effects are significant if p is ≤0.0500. In this case p = 0.75 which implies that there is no statistically significant difference between female respondents across different levels of study, in terms of losing friends.

Marked effects significant if p≤0.0500

Chi-square	0.57
p	0.75
df	2

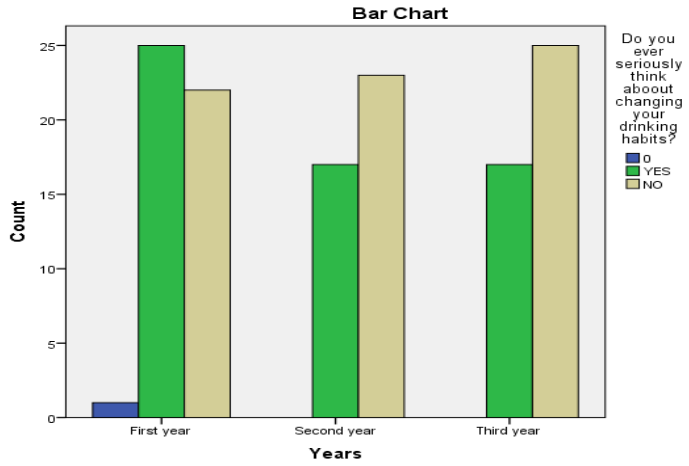
5.4 Section C: Changes to drinking patterns adapted from Mogotsi (2011)

The following section is adapted from questions developed by Mogotsi (2011) in research at the University of Limpopo (Medunsa campus) investigating alcohol use amongst first year male and female students.

Table 29: Do you ever seriously think about changing your drinking habits?

Years	Frequency	Yes (%)	No (%)
First year	48	42.5	57.5
Second year	40	40.5	59.5
Third year	42	45.4	53.8

Figure 26: Do you ever seriously think about changing your drinking habits?



In first year 42.5% indicated that they have seriously thought about changing your drinking habits while 57.5% has never thought about changing their habits. In second year 40.5% have seriously thought about changing your drinking habits while 59.5% have not. In the third year 45.4% have seriously thought about changing your drinking habits and 53.8% have not. A chi square test was used to see if there is a relationship between three categorical values, marked effects are significant if p is ≤0.0500. In this case p = 00.49, which implies that there is no statistically significant difference across the different levels regarding participants seriously thinking about changing their drinking habits.

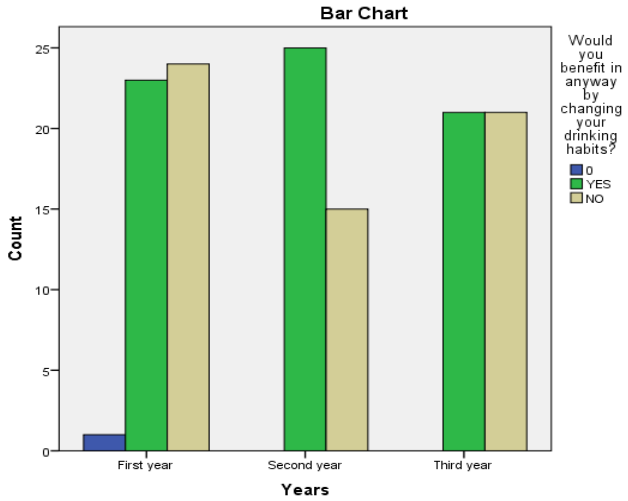
Marked effects significant p≤ 0.05

Chi-square	3.40
p	0.49
df	4

Table 30: Would you benefit in any way by changing your drinking habits?

Years	**Frequency**	**Yes (%)**	**No (%)**
First year	48	47.9	50
Second year	40	62.5	37.5
Third year	42	50	50

Figure 27: Would you benefit in any way by changing your drinking habits?



Of the 130 respondents 48 (37%) were first year students, 40 (31%) second year and 42 (32%) third year. In first year 47.9% indicated that they would benefit by changing their drinking habits in some way, while 50% think they would not benefit in anyway by changing their drinking habits, 2.1% did not respond. In second year all respondents participated, 62.5% indicated that they would benefit in some way by changing their drinking habits, while 37.5% indicated that they would not benefit by changing their drinking habits. In the third year all respondents participated, 50% indicated that they would you benefit in some way by changing their drinking habits, while 50% indicated that they would not benefit in anyway. A chi square test was used to see if there is a relationship between three categorical values, marked effects are significant if p is ≤0.0500. In this case p = 00.45, which implies that there is no statistically significant difference across the different levels with regard to thinking that they would benefit in anyway by changing their drinking habits.

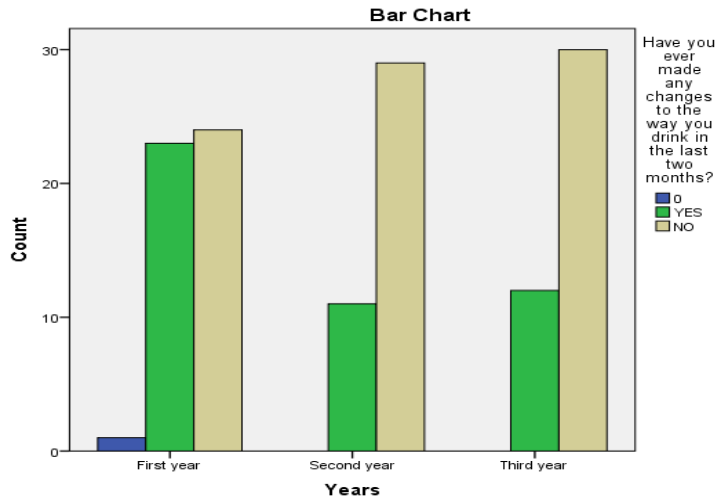
Marked effects significant p ≤00.05

Chi-square	3.63
p	0.45
df	4

Table 31: Have you made any changes to the way you drink in the last two months?

Years	**Frequency**	**Yes (%)**	**No (%)**	**0 (%)**
First year	48	47.9	50	2.1
Second year	40	28.6	71.6	0
Third year	42	36.2	63.8	0

Figure 28: Have you made any changes to the way you drink in the last two months?



In first year 47.9% indicated that they have made changes to the way they drink in the last two months, while 50% indicated they had not made any changes to the way they drink and 2.1% did not answer the question. In second year all respondents participated, 28.6% indicated that they have made changes to the way they drink in the last two months, while 71.6% indicated that they have not made changes. In third year all participated 36.2% indicated that they have made changed to the way they have drunk alcohol in the last two months, while 63.8% indicated that they had not. In this case p = 00.12, which implies that there is no statistically significant difference across the different levels with regard to making changes to the way they drink in the last 2 months.

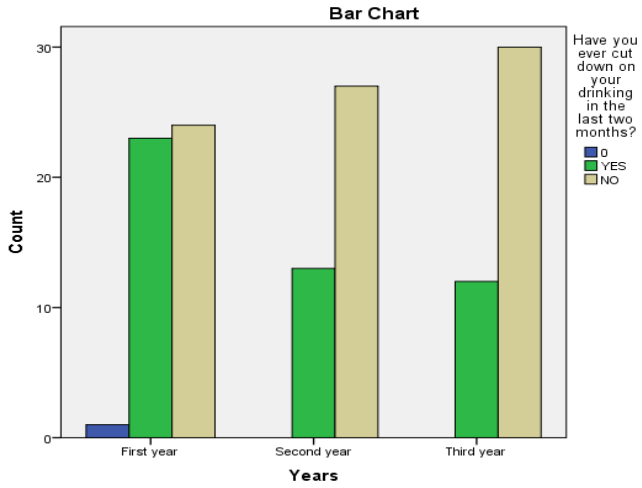
Marked effects significant $p \leq 0.05$

Chi-square	7.38
p	0.12
df	4

Table 32: Have you ever cut down on your drinking in the last two months?

Years	**Frequency**	**Yes (%)**	**No (%)**	**0 (%)**
First year	48	47.9	50	2.1
Second year	40	33.5	67.5	0
Third year	42	28.6	71.4	0.

Figure 29: Have you ever cut down on your drinking in the last two months?



In first year 47.9% indicated that they had cut down their drinking in the last two months, while 50% had not, 2.1% did not participate. In second year 33.5% indicated that they had cut down on their drinking in the last two months, while 67.5% had not. In third year 36.2% indicated that they had cut down on their drinking in the last two months, while 71.4% indicated that they had not. In this case p = 00.18, which implies that there is no statistically significant difference across the different levels with regard to participants cutting down their drinking in the last two months.

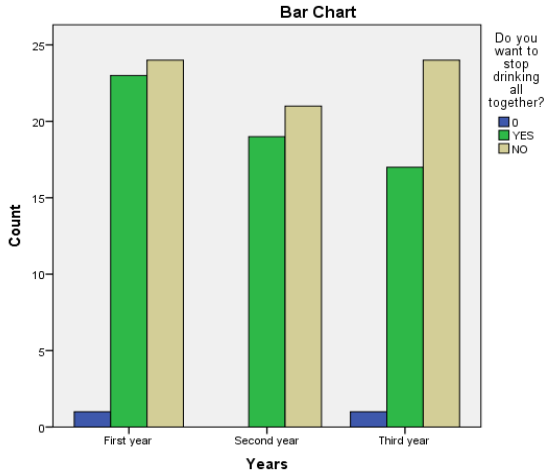
Marked effects significant p≤00.05

Chi-square	6.19
p	0.18
df	4

Table 33: Do you want to stop drinking all together?

Years	**Frequency**	**Yes (%)**	**No (%)**	**0 (%)**
First year	48	47.9	50	2.1
Second year	40	28.6	71.6	0
Third year	42	53.1	45.4	1.5

Figure 30: Do you want to stop drinking all together



In first year 47.9% indicated that they do want to stop drinking all together, while 50% do not, 2.1% did not respond. In second year all respondents participated, 28.6% indicated that they do want to stop drinking all together, while 71.6% do not. In third year 53.1% indicated that they do want to stop drinking all together, while 45.4% do not, 1.5% did not participate. In this case p = 00.83, which implies that there is no statistically significant difference across the levels with regards to participants wanting to stop drinking altogether.

Marked effects significant p≤00.05

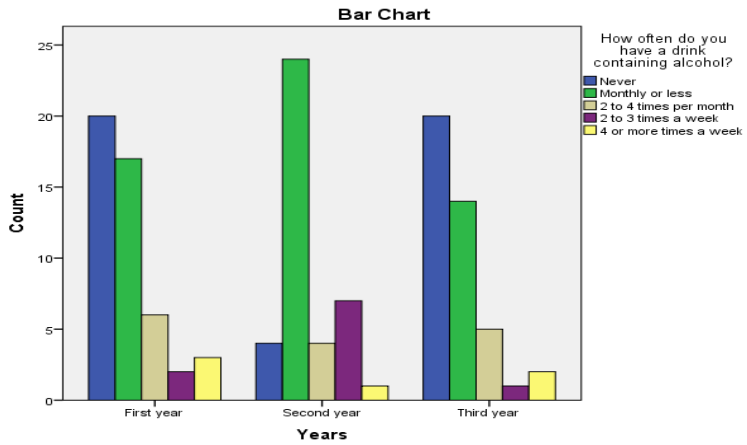
Chi-square	1.45
p	0.83
df	4

5.5 Section D: The Alcohol Use Disorders Identification Self Report Test

Table 34: How often do you have a drink containing alcohol?

Years	Frequency	Never %	Monthly or less %	2-to-4 times a month %	2-to-3 times a week %	4-or more times a week %
First year	48	41.7	35.4	12.5	4.2	6.3
Second year	40	10	60	10	17.5	2.5
Third year	42	47.6	33.3	11.9	2.4	4.8

Figure 31: How often do you have a drink containing alcohol?



In first year 41.7% indicated that they have never had a drink containing alcohol, 35.4% have had a drink containing alcohol in a month or in a period less than that, 12.5% indicated that they have had a drink containing alcohol 2 to 4 times a month, 4.2% have had a drink containing alcohol 2 to 3 times a week, while 6.3% do have a drink containing alcohol 4 or more times a week. In second year 10% indicated that they have never had a drink containing alcohol, 60% have had a drink containing alcohol in a month or period less than that, 10% have had a drink containing alcohol 2 to 4 times a month, 17.5% have had a drink containing alcohol 2 to 3 times a week, while 2.5% have had a drink containing alcohol 4 or more times a week. In third year, 47.6% of the sample indicated that they have never had a drink containing alcohol, 33.3% have had a drink containing alcohol in a month or period less than that, 11.9% have had a drink containing alcohol 2 to 4 times a month, 2.4% have had a drink containing alcohol 2 to 3 times a week while, 4.8% have had a drink containing alcohol 4 or more times a week. In this case p = 0.04 which implies that there is a statistically significant difference across the levels with regards to how often participants have drinks.

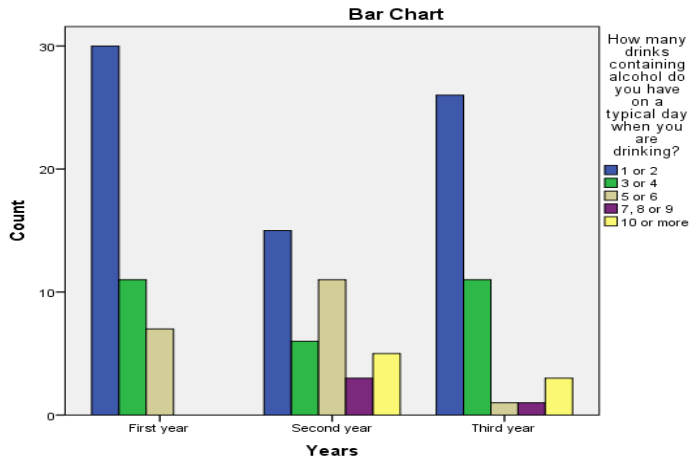
Marked effects significant p = 0.05

Chi-square	22.35
P	0.04
Df	8

Table 35: How many drinks containing alcohol do you have on a typical day when you are drinking?

Years	**Frequency**	**1 or 2 %**	**3 or 4 %**	**4 or 6 %**	**7,8, 9 %**	**10-or more%**
First year	48	62.5	22.9	14.6	0	0
Second year	40	37.5	15	27.5	7.5	12.5
Third year	42	61.9	26.2	2.4	2.4	7.1

Figure 32: How many drinks containing alcohol do you have on a typical day when you are drinking?



In first year 62.5% indicated that they have 1 or 2 drinks containing alcohol on a typical day when drinking, 22.9% have 3 or 4 drinks containing alcohol, 14.6% have 5 to 6 drinks containing alcohol, while no first years drank 7,8,9 drinks or more. In second year 37.5% of the sample indicated that they had 1 or 2 drinks containing alcohol on a typical day when they were drinking, 15% consume 3 to 4 drinks containing alcohol, 27.5% have 5 or 6 drink containing alcohol, 7.5% have 7,8 or 9 drinks containing alcohol, while 12.5% have 10 or more drink containing alcohol. In third year, 61.9% of participants indicated that they have 1 or 2 drinks containing alcohol on a typical day while drinking, 26.2% have 3 to 4 drinks containing alcohol, 2.4% have 5 or 6 drinks containing alcohol, and 2.4% have 7, 8 or 9 drinks containing alcohol, while 7.1% consume 10 or more drinks containing alcohol. In this case p = 0.003 which implies that there is no statistically significant difference across the levels with regards to how many drinks participants across levels have on a typical day when drinking alcohol.

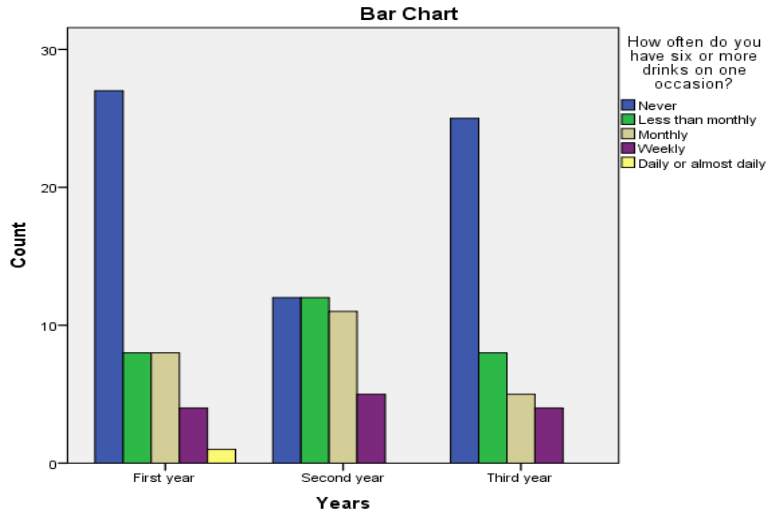
Marked effects significant p≤00.05

Chi-square	22.35
p	0.003
df	8

Table 36: How often do you have six or more drinks on one occasion?

Years	Frequency	Never %	Less than monthly%	Monthly %	Weekly %	Daily or almost daily %
First year	48	56.3	16.7	16.7	8.3	2.1
Second year	40	30	30	27.5	12.5	0
Third year	42	59.5	19	11.9	9.5	0

Figure 33: How often do you have six or more drinks on one occasion?



In first year 56.3% indicated that they do not have six or more drinks on one occasion, 16.7% have six or more drinks in less than monthly, 16.7% have six or more drinks monthly, 8.3% have six or more drinks weekly, while 2.1% have six or more drinks daily or almost daily. In second year 30% indicated that they do not have had six or more drinks in one occasion, 30% have six or more drinks in less than a month, 27.5% have six or more drinks monthly, 12.5% have six or more drinks weekly, while no student reported to having six or more drinks daily or almost daily. In third year, 59.5% of the participants indicated that they don't have six or more drinks in one occasion, 19% have six or more drinks in less than a month, 11.9% have six or more drinks monthly, and 9.5% have six or more drinks weekly, while no student consumed six or more drinks daily or almost daily. In this case $p = 0.18$ which implies that there is no statistically significant difference across the levels with regards to participants having six or more drinks on one occasion.

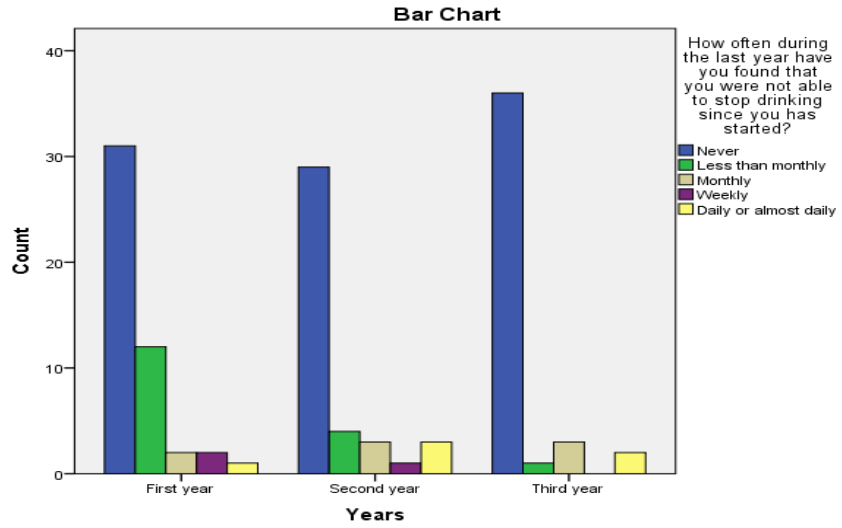
Marked effects significant p≤00.05

Chi-square	11.30
p	0.18
df	8

Table 37: How often during the last year have you found that you were not able to stop drinking when you started?

Years	Frequency	Never %	Less than monthly%	Monthly %	Weekly %	Daily or almost daily %
First year	48	64.6	25	4.2	4.2	2.1
Second year	40	72.5	10	7.5	2.5	7.5
Third year	42	85.7	2.4	7.1	0	4.8

Figure 34: How often during the last year have you found that you were not able to stop drinking when you started?



In first year 64.6% of the participants indicated that they were able to stop drinking after they had started in the last year, 25% indicated that they were unable to stop in less than a month, 4.2% were unable to stop monthly, 4.2% were unable to stop weekly, while 2.1% were unable to stop drinking daily or almost daily. In second year 72.5% of the participants indicated that they were able to stop drinking after they had started to drink in the last year, 10% were unable to stop in less than a month, 7.5% were unable to stop monthly, and 2.5% were unable to stop weekly, while 7.5% were unable to stop drinking daily or almost daily. In third year, 85.7% indicated that they were able to stop drinking after they had started, in the last year 2.4% were unable to stop in less than a month, 7.1% were unable to stop

monthly, and no participants in that level were unable to stop drinking weekly, while 4.8% were unable to stop drinking daily or almost daily. In this case p = 0.07 which implies that there is no statistically significant difference across levels in terms of participants being able to stop drinking, after they had started, in the last year.

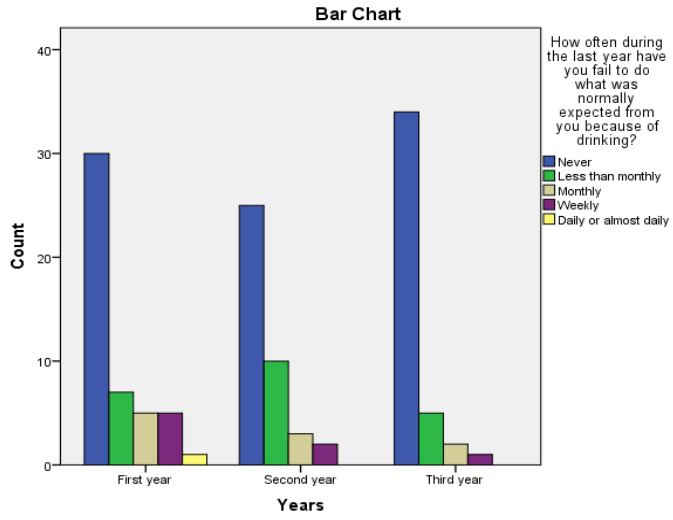
Marked effects significant p≤00.05

Chi-square	14.13
p	0.07
df	8

Table 38: How often during the last year have you failed to do what was normally expected of you because of drinking?

Years	Frequency	Never %	Less than monthly%	Monthly %	Weekly %	Daily or almost daily %
First year	48	62.5	14.6	10.4	10.4	2.1
Second year	40	62.5	25	7.5	5	0
Third year	42	81	11.9	4.8	2.4	0

Figure 35: How often during the last year have you failed to do what was normally expected of you because of drinking?



In first year 62.5% indicated that they have never failed do what was normally expected from them because of drinking, while 14.6% have failed to do what was expected of them in less than a month, 10.4% failed monthly, 10.4% failed weekly, while 2.1% failed daily or almost daily. In second year 62.5% of the participants indicated that they had never failed do what was normally expected from them because of drinking, while 25% failed in less than a

month, 7.5% failed monthly, 5% failed weekly, while 0% of the students did not fail to do what was expected of them daily or almost daily. In third year, 81% of the participants indicated that they have never failed do what was normally expected from them because of drinking, while 11.9% failed in less than a month, 4.8% failed monthly, 2.4% failed weekly, while 0% of the students did not fail to do what was normally expected of them daily or almost daily. In this case p = 0.35 which implies that there is no statistically significant difference across levels in terms of participants being able to do what is expected of them.

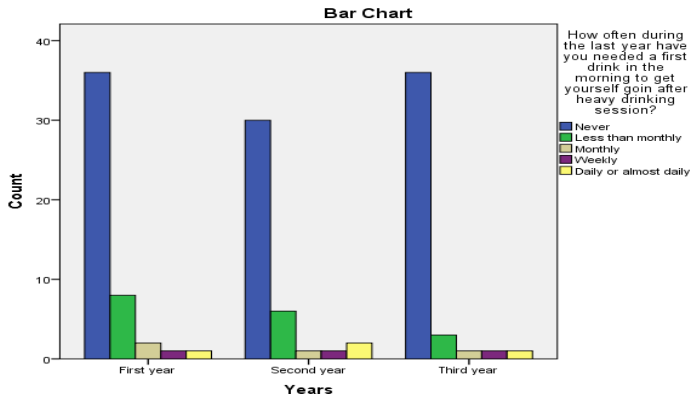
Marked effects significant p≤00.05

Chi-square	8.85
p	0.35
df	8

Table 39: How often during the last year have you needed a first drink in the morning to get yourself going after heavy drinking session?

Years	Frequency	Never %	Less than monthly%	Monthly %	Weekly %	Daily or almost daily%
First year	48	75	16.7	4.2	2.1	2.1
Second year	40	75	15	2.5	2.5	5
Third year	42	85.7	7.1	2.4	2.4	2.4

Figure 36: How often during the last year have you needed a first drink in the morning to get yourself going after heavy drinking session?



In first year 75% of the sample indicated that during the last year they have not needed a first drink in the morning to get them going after heavy drinking, while 16.7% indicated that this occurred less than monthly, 4.2% had needed a first drink to help them get going on monthly basis, and 2.1% needed a first drink to help them get going on a weekly basis, while 2.1% needed a first drink daily or almost daily to help them get going after a heavy drinking session. In second year, 75% indicated that during the last year they did not need a first drink in the morning to get them going after heavy drinking session, while 15% indicated that this occurred less than monthly, 2.5% needed a first drink to get them going on a monthly basis and 2.5% needed a drink to get them going on a weekly basis, while 5% needed a first drink daily or almost daily to get them going after a heavy drinking session. In third year, 85.7% indicated that during the last year they have not needed a first drink in the morning to get them going after heavy drinking, 7.1% indicated that this occurred less than monthly, 2.4% had needed a first drink to get them going on a monthly basis, and 2.4% needed a first drink weekly, while 2.4% needed a first drink daily or almost daily. In this case $p = 0.35$ which implies that there is no statistically significant difference across levels in terms of participants across levels of study and how often during the last year they have needed a first drink in the morning to get themselves going after heavy drinking session.

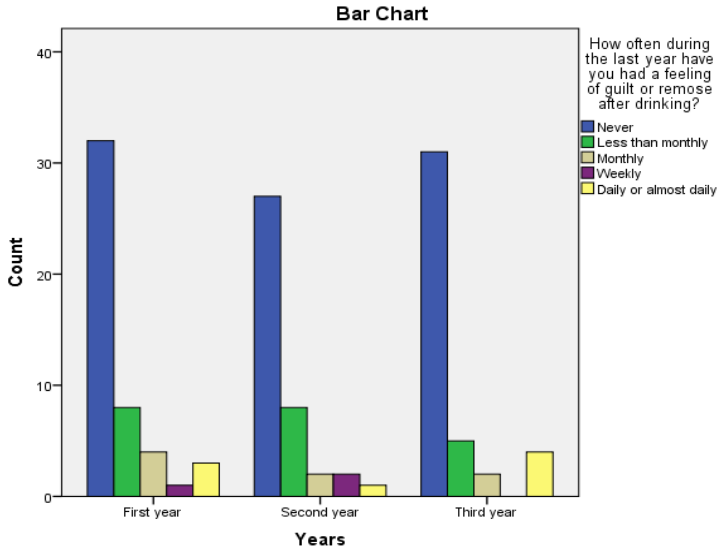
Marked effects significant $p \leq 00.05$

Chi-square	8.85
p	0.35
df	8

Table 40: How often during the last year have you had a feeling of guilt or remorse after drinking?

Years	**Frequency**	**Never %**	**Less than monthly%**	**Monthly %**	**Weekly %**	**Daily or almost daily%**
First year	48	66.7	16.7	8.3	2.1	6.3
Second year	40	67.5	20	5	5	2.5
Third year	42	73.8	11.9	4.8	0	9.5

Figure 37: How often during the last year have you had a feeling of guilt or remorse after drinking?



In first year 66.7% indicated that they had never had feelings of guilt or remorse after drinking in the last year, 16.7% felt guilty and remorseful in less than monthly, 8.3% felt guilty and remorseful monthly, and 2.1% felt guilty and remorseful weekly, while 6.3% felt guilty and remorseful daily or almost daily. In second year, 67.5% indicated that they had never felt guilty or remorseful after drinking in the last year, 20% felt guilty and remorseful in less than monthly, 5% felt guilty and remorseful monthly, and 5% felt guilty and remorseful weekly, while 2.5% felt guilty and remorseful daily or almost daily. In third year, 73.8% indicated that they had never felt guilty or remorseful after drinking in the last year, 11.9% felt guilty and remorseful in less than monthly, 4.8% felt guilty and remorseful monthly, and 0% did not feel guilty or remorseful weekly, while 9.5% felt guilty and remorseful daily or almost daily. In this case p = 0.70 which implies there is no statistically significant difference across levels with regard to feeling guilty or remorseful after drinking in the last year.

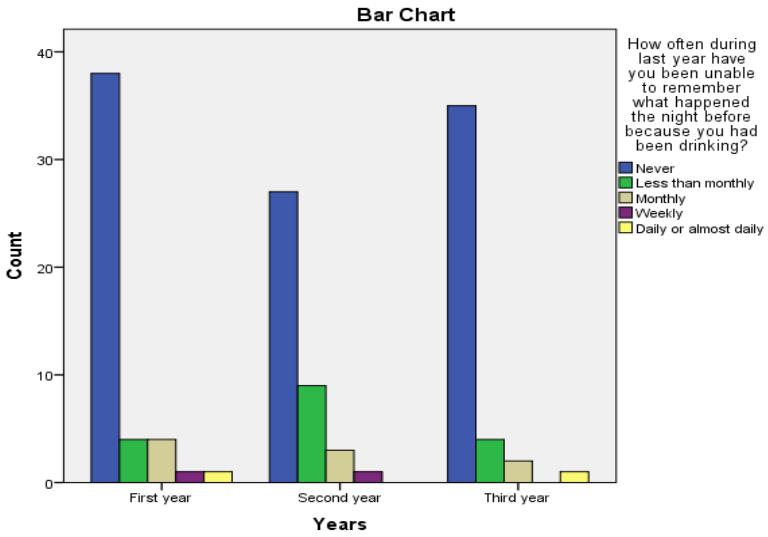
Marked effects significant p≤00.05

Chi-square	5.50
p	0.70
df	8

Table 41: How often during last year have you been unable to remember what happened the night before because you had been drinking?

Years	Frequency	Never %	Less than monthly%	Monthly %	Weekly %	Daily or almost daily%
First year	48	79.2	8.3	8.3	2.1	2.1
Second year	40	67.5	22.5	7.5	2.5	0
Third year	42	83.3	9.5	4.8	0	2.4

Figure 38: How often during last year have you been unable to remember what happened the night before because you had been drinking?



In first year 79.2% indicated that they have never been unable to remember what happened the night before because of drinking, 8.3% have been unable to remember what happened less than monthly, 8.3% have been unable to remember what happened monthly, and 2.1% have been unable to remember what happened weekly, while 2.1% were unable to remember what happened daily or almost daily. In second year, 67.5% indicated that they have never been unable to remember what happened the night before because of drinking, 22.5% have been unable to remember what happened less than monthly, 7.5% have been unable to remember what happened monthly, and 2.5% have been unable to remember what happened weekly, while 0% of these participant were unable to remember what happened daily or almost daily. In third year, 83.3% indicated that they have never been unable to remember what happened the night before, 9.5% have been unable to remember what happened less than monthly, 4.8% have been unable to remember what happened monthly, and no student had been unable to

remember what happened weekly, while 2.4% were unable to remember what happened daily or almost daily. In this case p = 0.53 which implies there is no statistically significant difference across levels with regard to participants being unable to remember what happened the night before because they had been drinking.

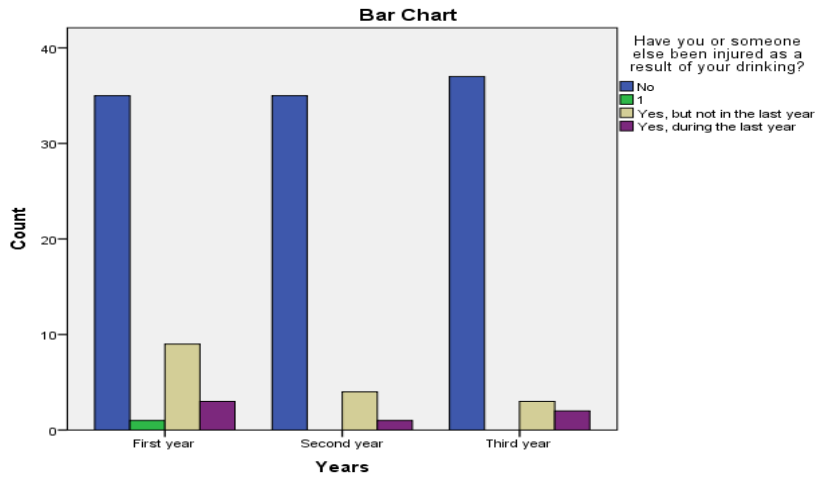
Marked effects significant p≤00.05

Chi-square	0.23
p	0.53
df	8

Table 42: Have you or someone else been injured as a result of your drinking?

Years	Frequency	No %	Yes %	Yes, but not in the last year %	Yes, during the last year %
First year	48	72.9	2.1	18.8	6.3
Second year	40	87.5	0	10	2.5
Third year	42	88.1	0	18.8	33.3

Figure 39: Have you or someone else been injured as a result of your drinking?



In first year 72.9% indicated that no one had been injured, including themselves, as a result of their drinking, 2.1% indicated that they or someone else had been injured as a result of their drinking, 18.8% indicated that either they or someone else had been injured as a result of their drinking, but not in the last year, while 6.3% indicated that either they or someone else had been injured as a result of their drinking during the last year. In second year, 87.5% of

the participants indicated that no one had been injured including themselves as a result of their drinking, None of the second year (0%) students indicated that yes either they or someone else had been injured as a result of their drinking, 10% had agreed that someone or themselves had been injured as a result of their drinking but not in the last year, while 2.5% indicated that someone or themselves had been injured as a result of their drinking during the last year. In third year, 88.1% of the respondents indicated that no one had been injured including themselves as a result of their drinking, none of the third years (0%) students indicated that yes either they or someone else had been injured as a result of their drinking, 18.8% indicated that someone or themselves had been injured as a result of their drinking but not in the last year, while 33.3% indicated that an injury had occurred to someone or themselves as a result of their drinking during the last year. In this case p = 0.43 which implies there is no statistically significant difference across levels with regard to participants being injured themselves or someone else being injured as a result of their drinking.

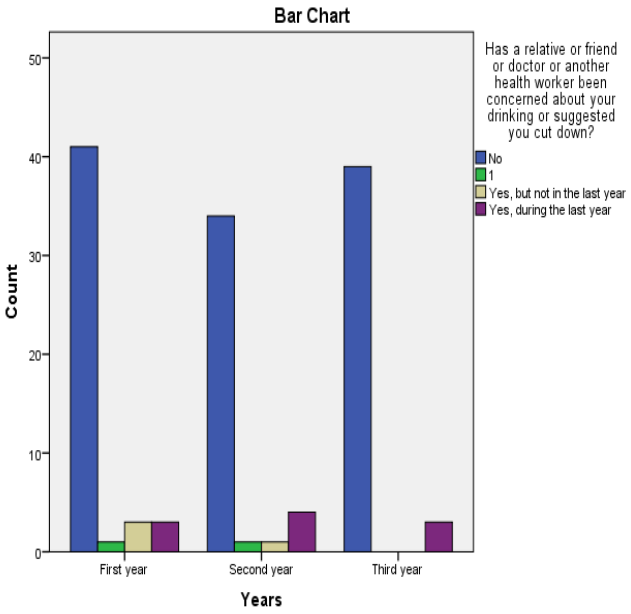
Marked effects significant p≤00.05

Chi-square	0.21
p	0.43
df	8

Table 43: Has a relative or friend or doctor or another health worker been concerned about your drinking or suggested you cut down?

Years	**Frequency**	**No %**	**Yes %**	**Yes, but not in the last year %**	**Yes, during the last year %**
First year	48	85.4	2.1	6.3	6.3
Second year	40	85	2.5	2.5	10
Third year	42	92.9	0	0	7.1

Figure 40: Has a relative or friend or doctor or another health worker been concerned about your drinking or suggested you cut down?



In first year 85.4% indicated that no relative, friend, doctor or another health worker had been concerned about their drinking, 2.1% indicated that a relative, friend, doctor or another health worker had been concerned about their drinking or suggested that they cut down, 6.3% indicated that a relative, friend, doctor or another health worker had been concerned about their drinking, but not in the last year, while 6.3% indicated that a relative, friend, doctor or another health worker had been concerned about their drinking in the last year during the last year. In second year, 85% indicated that no relative, friend, doctor or another health worker had been concerned about their drinking or suggested cutting drinking down, 2.5% indicated that a relative, friend, doctor or another health worker had been concerned about their drinking, 2.5% reported that a relative, friend, doctor or another health worker had been concerned about their drinking, but not in the last year, while 10% indicated that a friend, doctor or another health worker had been concerned about their drinking during the last year. In third year, 92.9% indicated that no relative, friend, doctor or another health worker had been concerned about their drinking or suggested cutting drinking down, none of the sample answered yes (0%) responded that no relative, friends, doctor or other health workers had been concerned about their drinking during the last year, 7.1% reported that a relative, friend,

doctor or another health worker had been concerned about their drinking during the last year. In this case p = 0.61 which implies there is no statistically significant difference across levels with regard to participants relatives, friends, doctors or another health worker being concerned about their drinking and suggesting that it be cut down.

Marked effects significant p≤00.05

Chi-square	0.18
p	0.61
df	8

5.6 Section E: Open-ended questions to allow respondents to add their views.

In this section questions are adapted from an investigation undertaken at the University of Limpopo (Medunsa campus) by Mogotsi (2011) using male and female first year students as participants. This section will focus on the five open-ended questions which were used to collect qualitative data. These questions were analysed using the Thematic Content Analysis (TCA) to get the themes that are present regarding the question posed.

5.7 Emerging Themes

Thematic content analysis was used to analysis data and to pick up major themes from the responses provided by the participants across all levels. These themes are summarised in a table format to for the purpose of clarity. These themes were gleaned from a reading and re-reading of questions 31 to 35 on the questionnaire. Appendix D gives a breakdown of the themes and the statistics in terms of how many participants answered each open-ended question (ranging from 94 to 115).

Table 44: Emerging themes

Theme	**Themes Found in the following responses**
Fun	The theme fun stem from responses provided for question 31, 33 and 34 and 35. Respondents indicated that they drink alcohol to have fun.
Negative behaviour(s)	The theme negative behaviour stems from the responses provided for question 32, 33, 34 and 35. Respondents indicated that drinking alcohol is unhealthy and it influences bad behaviour in those who

	consume alcohol.
Peer influence	The theme peer influence stems from the responses provided for question 31, 32 and 33. Respondents indicated when they drink alcohol it is often when they are influenced by friends.
De-stress	The theme de-stress stems from the responses provided for question 32. Respondents indicated that when they drink alcohol to relax and de-stress.
Abstinence	The theme abstinence stems from the responses provided to questions 31 – 35 which indicated that some of the participants do not drink at all. Respondents who did not drink indicated that they would prefer that all people who are drinking alcohol should stop drinking, or become abstinent.

5.8 Summary

This chapter analysed and gave an interpretation of both the quantitative and qualitative data. For each question an interpretation of the data was given using tables, figures and a written explanation. The qualitative data was analysed using Thematic Content Analysis (TCA) and the results were presented in terms of the major themes emerging out of the analysis of data. Chapter 6 gives a concise discussion of the results in terms of the result propositions and the framework underpinning the research.

CHAPTER 6: DISCUSSION OF RESULTS

6.1 Introduction

This chapter will be focus on discussing the findings of the study and is guided by the use of the theoretical framework underpinning the research namely, the Protection Motivation Theory (PMT). The discussion will also be presented in terms of the research propositions namely: 1. undergraduate female students will report a negative impact on their social relationships as a result of drinking alcohol; 2. undergraduate female students will experience negative effects on their academic performance because of drinking alcohol and 3. There will be no significant difference in female undergraduate drinking patterns across year levels.

The results will also be discussed in terms of the framework used by the study specifically the Protection Motivation Theory (PMT). The following concepts, as defined by Monat and Lazarus (1991) are referred to in this regard a) pre – contemplation, that is people enter a stage when change is not really considered in a serious manner; b) contemplation, people become aware of the benefits of a change in their behaviour patterns; c) preparation, in this stage individuals begin to make positive behaviour changes that will lead to a healthier lifestyle and d) action, this refers to direct action is taken in terms of what is perceived as a positive change.

- **Proposition 1:** Undergraduate female students will report a negative impact on their social relationships as a result of drinking alcohol.

The results do not support proposition 1. According to the results the majority of female respondents across different year levels did not report a loss in social relationships which implies that their drinking alcohol had no negative effect on their social relationships. However, there were a notable (though not statistically significant) number of participants that did report a negative impact on social relationships. For instance, 22.9% of first years, 20% of second years and 16.7% of the third year sample reported to losing a friend because of their drinking (See table 13, figure 10). A similar question was asked later on in the questionnaire and this time 25% of first years, 25% of second years and 19% of third years

reported to losing a friend because of drinking alcohol. Essentially, at 1st and 2nd year level a quarter of respondents owned to losing friends because of their drinking behaviour. When questions are repeated and the second question is later in the survey it is more likely that this is a more accurate reflection of losing a friend as respondents are more comfortable answering questions and are less likely to be defensive (See table 28, figure 25).

In terms of the Protection Motivation Theory (PMT) this reflects that these individuals are in the pre-contemplation phase when they do not think that change is necessary and have yet to enter the contemplation phase when individuals recognize the benefits of changing a particular behaviour. This supports findings by Nqojane (2009) who noted that participants in her study KAPB study at a rural university in KwaZuluNatal who, in the pre-contemplation stage of the PMT did not think that sexual behaviour change was necessary.

- **Proposition 2:** Undergraduate female psychology students registered at the University of Limpopo (Turfloop campus) experience negative effects on their academic performance because of drinking alcohol.

The majority of the sample of females across 1st, 2nd and 3rd year levels did not report to any experiences which would cause negative effects on their academic performance thus the overall proposition is not upheld. However, there are two statistically significant results which indicate that more first year students in the sample experience negative effects relating to drinking alcohol which are likely to impact on their overall academic performance.

In 1st year a quarter (25%), in second year a quarter (25%) and in third year over a quarter (28.6%) of the respondents reported to missing classes (See table 26, figure 23). As the first year dropout rate is higher than in any other level of study (Mogotsi, 2011) it is a worrying statistic. Twenty point eight (20.8%) of the first year sample, 40% of the second year sample and 14.3% of the third year sample cannot remember what happened the morning after a night of drinking it is reasonable to expect that at least some of these respondents miss classes (See table 5, figure 2). Furthermore, a quarter of the first year sample (25%), 21.4% of the second year sample and 21.5% of the third year sample reported to failing a test because of drinking (See table, 27, figure 24). Additionally, a quarter of the first year sample (25%), 12.5% of the second year sample and 4.8% of the third year sample report getting into trouble

a university or work because of drinking. This is a significant result (p=0.000) with first years reportedly getting into more trouble than the other two levels. First year students also report to attending Alcoholics Anonymous (AA) meetings more than 2nd or 3rd years (See table 9, figure 6). This is another significant result with 27.1% of first years, 5% or 2nd years and 0% of third years attending AA meetings (p=0.000). It must also be stated that over a quarter of respondents across year levels reported to drinking before noon (1st years 29.2%, 2nd years 35.5% and 3rd years 26.2% - see table 17, figure 14). This is a reasonable indicator that they do not attend some lectures and/or tutorials or practicals. It may also be an indicator that this portion of the entire sample may experience alcohol dependence or addiction later in life.

In terms of the PMT it can be inferred that a number of participants have passed the pre-contemplation phase when they do not think that drinking alcohol is a problem and have contemplated change for instance, as noted by the theme abstinence drawn from responses to the open-ended questions. It can also be inferred that some of the participants, particularly the first year sample, have begun to make positive behaviour changes by taking direct action for instance, by attending AA meetings. This is underpinned by research by Nqojane (2009) and Mogotsi (2011).

Proposition 3: There will be no significant difference in female undergraduate drinking patterns across year levels.

This proposition was not upheld in terms of the overall results, as on eight of the questions there are results indicating that there is a significant difference in female undergraduate drinking patterns across year levels, with first years having more problems than the other two levels. Questions that do not demonstrate results in terms of statistical significance also infer a trend towards a difference in drinking patterns amongst the different year levels with first year students more likely to report negative drinking behaviours.

In first year a significant difference was noted in the number of first years who attended AA meetings than the other levels (p = 0.00 – see table 9, figure 3). First years were also more likely to get into trouble at work or university (p = 0.00, see table 14, figure 9) and have lost a job (p = 0.00, see table 15, figure 9). It is also notable that in terms of having liver problems (which if not caused by drinking is made worse by alcohol intake) there was a significant

difference between year levels, with first years reporting this more often than the other two levels (1st year 18.8%, 2nd years 0% and 3rd years 2.4%. p = 0.01, see table 22, figure 19). Problematically 18.8% of first years report to being hospitalised in a psychiatric ward after drinking (2nd year 0% and 3rd year 2.4%, p = 0.01, see table 22, figure 19). This may infer that these students have underlying mental health issues which are masked (or they attempt to self-medicate) by their drinking. Over a quarter of first years (27.1%) of first years also report to being arrested for driving while under the influence of alcohol (2nd years 0%, 3rd years 0%, p = 0.00, see table 24, figure 21). There was also a significant difference in terms of seeking help for emotional problems from a doctor, social worker, clergyman or mental health clinic for first years (1st years 27.1%, 2nd years 0% and 3rd years 0%, p = 0.00 see table 23, figure 20). First years had also been detained by an official for a few hours because of drinking which was statistically significantly more than the other levels (1st year 16.7%, 2nd year 2.5% and 3rd year 9.5%, p = 0.01, see table 25, figure 22).

Other non-significant results supporting the overall trend to first years having more problems related to alcohol consumption and its effects are as follows. More of the first year sample (27.1%) than second (17.5%) or third years 16.7%) reported that a close friend or family member has sought help because of their drinking (Table 12, figure 9). The first year sample (27.1%) also report that they neglected family obligations more than the second (17.1%) or third (16.7%) year sample (Table 16, figure 13). They also reported to suffering the effects of Delirium Tremens (DT's – hallucinations, shaking and other physical effects caused by drinking too much alcohol) more than the second and third year levels (1st year 22.9%, second year 10.00% and third year 7.1%, see table 19, figure 16). Furthermore, more first years (16.7%) reported that they had gone for help because of their drinking than second (7.5%) and third (4.8%) years (Table 20, figure 17). They also report to having been hospitalised more than the other year levels (1st year 14.6%, 2nd year 2.5% and 3rd year 2.4%).

If these results are viewed in terms of the PMT they suggest that overall between 16 –to 28% of the first year sample are only in the pre – contemplation stage when behaviour change is possibly not considered in a serious manner. It may be that some of these participants may be aware that there are benefits to behaviour change but are not necessarily read to make a positive and active commitment to any kind of direct action which will help them make that change. These results are supported by those of Nqojane (2009) and Mogotsi (2011).

6.2 Other non-significant results reported in terms of the Protection Motivation Theory

In terms of the PMT it is indicated that across the different levels the majority of the participants are aware that drinking alcohol to excess is not a healthy behaviour, thus either do not drink or drink responsibly. However, a portion of the sample may be aware but still have negative drinking behaviours. Awareness does not necessarily mean that respondents are at the point of preparing to change or taking action in order to change their drinking patterns. It does however, imply that that are beyond the pre-contemplation stage when change is not really considered seriously and are at the contemplation (some may be approaching the preparation stage) when they are aware of the benefits which are linked to changing behaviours, such as drinking too much alcohol. This is supported, to a degree, by the number of students across all levels who feel they would benefit by changing their drinking habits namely 47.9% of first years, 62.5% of second years and 50% of third years (See table 30, figure 27). This is reinforced by the results which note that 42.5% of first years, 40.5% of second years and 45.4% of third years have seriously thought about changing their drinking habits (See table 29, figure 26). The response to would you benefit by changing your drinking habits yielded the following results 47.1% of first years, 62.5% of second years and 50% or third years indicated yes. Changes in drinking behaviours in the last two months were also reported by all levels (1st year 47.9%, 2nd year 28.6% and third year 36.2%, see table 31, figure 28). It was also reported that participants across all year levels had tried to cut down their drinking (1st years 47.9%, 2nd years 33.5% and 3rd years 28.6%, see table 32, figure 9). Finally, a large proportion of the sample across all year levels reported that they wanted to stop drinking altogether, which fits in with the theme of abstinence emerging out of an analysis of data generated by the open-ended questions (1st years 47.9%, 2nd years 28.6% and third years 53.1%, see table 33, figure 30).

6.3 Drinking behaviours across year levels

The Alcohol Use Disorders Identification Self Report Audit was used to assess drinking behaviours across year levels and to ascertain any significant differences (See table 34 through to table 43). It was also used to identify the year levels (and percentage) of the sample in terms of their risk or susceptibility to alcohol use disorders.

In terms of the PMT the majority of participants do not report negative drinking behaviours. Those who report to not drinking or report moderate drinking behaviours are very likely aware of the dangers of drinking alcohol and have taken steps (direct action) to ensure that they either do not drink or drink responsibly.

However, a minority do report negative behaviours in terms of alcohol consumption. It is likely that these participants are in the pre-contemplation and contemplation stages and have not yet become aware of how behaviour change would positively benefit them. They are not prepared to make positive behaviour changes by taking direct action in terms of cutting down, stopping or getting help because of their self-reported negative drinking behaviours.

In terms of how often they drank second years drank monthly or less (60%) than the other year levels. At first year 35.4% and second year 33.3% reported to drinking monthly or less. This is a significant result with $p = 0.04$ inferring that the group who drink less overall monthly is the second year group. The other results indicate that across all levels patterns of drinking monthly and weekly are similar. It is likely that those who report to drinking four or more times a week are at risk of developing alcohol related disorders (1^{st} years 6.3%, 2^{nd} years 2.5% and 3^{rd} years 4.8%). Both first (41.79%) and third (47.6%) year participants report to never having a drink containing alcohol as opposed to ten percent (10%) of the second year sample. As second years report low levels of problems overall relating to alcohol consumption it is likely that they demonstrate responsible behaviour when drinking (for instance, not binge drinking). Although most students reported to consuming between 1 and 4 drinks daily, more first years (62.5%) had one or two drinks in a day than second (37.5%) or third year (61.9%) participants. However, those reporting to 10 or more drinks in one day, which may indicate that they are at risk of alcohol disorders, were second (12.5%) and third year (7.1%) respondents.

Only first year participants reported that they drink six of more drinks daily (2.1%), the inference is that this portion of the sample may be at risk of developing an alcohol related disorder. The portion of the sample which reported to not being able to stop drinking after they started is also at risk of developing alcohol related disorders. These amounted to 2.1% of first years, 7.5% of second years and 4.8% of third years. Failing to do what is normally expected of them because of drinking was reported by 2.1% of the first year sample. On a weekly basis 10.4% of first years, 5% of second years and 2.4% of third years fail to do what

is expected of them. These participants can be considered vulnerable to alcohol related disorders as their behaviour patterns are adversely affected by alcohol use. Problematically, some of the respondents report to needing a drink first thing in the morning to get themselves going after heavy drinking. On a daily basis 2.1% of first years, 5% of second years and 2.4% of third years and on a weekly basis 2.1% of first years, 2.5% of second years and 2.4% of third years report to needing a drink first thing in the morning. The aforementioned results are a strong indicator that these participants already have an alcohol related disorder.

During the last year a number of participants have felt guilt or remorse after drinking. Those who feel guilty weekly or daily are more likely to be at risk of drinking disorders, or have a drinking disorder than those who feel guilt monthly or less than monthly. Two point one percent (2.1%) of first years and 5% of second years feel guilty about drinking alcohol monthly, while 0% of third years feel the same way. Feeling guilty daily, the portion of the sample most at risk of alcohol disorders are reportedly 6.3% of 1st years, 2.5% of second years and 9.5% of third years. Furthermore, 2.1% of first years report to being unable to remember what happened the night before because of drinking on a daily basis ands and 2.4% of third year participants concur. On a weekly basis this is reported by 2.1% of first years and 2.5% of second years. This occurs monthly (1st year 8.3%, 2nd year 7.5% and third year4.8%) and less than monthly (1st year 8.3%, 2nd year 22.5% and third year 9.5%) at first, second and third year levels. These female respondents are not only at risk of alcohol related disorders they are also at risk of for instance, rape and date rape. Another interesting finding is that a small portion of the sample reports to someone else being injured because of their drinking. During the last year 6.3% of first years, 2.5% of second years and a very high percentage of third years (33.3%) report to this. This statistic needs further investigation. Eighteen point eight (18.8%) of first years, 10% of second years and 18.8% of third years report to someone being injured, but not in the last year, as a result of their drinking. Overall another 2.1% of the first year sample state Yes, someone has been injured as a result of their drinking. Answering the question about whether a relative or friend has been concerned enough to suggest that drinking be cut down 6.3% of 1st y ears, 10% of 2nd years and 7.1% of third years stated Yes. A further percentage stated that this had occurred overall and others responded that this had happened but not in the last year. This suggests that these participants have been approached by close family and friends and made aware that they may have drinking problems.

6.4 Research Conclusions

As the nearly 89% (88.5%) of the sample of female participants, across all year levels, report to being Christian it would be expected that they have moral values associated with the religion which would either call for moderate drinking or abstinence. The results of this study generally underpin this statement.

However, although the majority of the female participants reported responsible drinking behaviour this study found that a notable, although not statistically significant, proportion of female students' drinking behaviours across all year levels remains a cause for concern both socially and academically. A notable proportion of female undergraduate students, particularly first years, did report issues with social relationships and problems with academic performance because of alcohol consumption. Overall, a significant difference in drinking patterns across year levels, with first years more likely to report problem behaviours relating to alcohol consumption, excess than second or third year levels was found.

In terms of the PMT, the majority of the respondents, who report responsible drinking behaviours and patterns, are most likely aware of the physical, social and academic problems related to alcohol use. This is supported by study results from Mogotis (2001). It is, however, evident from the results that a notable number of participants have not considered behaviour change (relating to alcohol consumption) in a serious manner and were not necessarily ready to make a positive and active commitment to any kind of change in their drinking behaviour(s). It is also likely that the level of awareness, of those who are at risk and who feel guilty and report to thinking about change, is not adequate enough to facilitate a change in their drinking behaviours.

CHAPTER 7: METHODOLOGICAL LIMITATIONS, STRENGTHS AND RECOMMENDATIONS

7.1 Introduction

This chapter will focus on the evaluation of the study, the limitations and strengths identified and recommendations which are derived from the findings of research.

7.2 Methodological strengths of the study

The methodological strengths of the study are:

- The sample was homogenous in terms of sex, age and education.
- Appropriate statistical analysis was used.
- The questionnaires were standardised thus reliable and valid.
- The data was triangulated using both qualitative and quantitative methods.

7.3 Methodological weaknesses of the study

- The sample was not randomised.
- As the sample was not random only non-parametric statistics could be used

7.4 Recommendations arising out of the research

The study makes the following recommendations.

- The University of Limpopo Turfloop campus should have alcohol awareness campaigns during all levels of study but particularly during first year orientation.
- The University should consider selling alcohol on campus so that alcohol use can be better monitored.
- The University of Limpopo (Turfloop campus) should have a pamphlet available at outlets like the clinic and library informing students of problems associated with alcohol use.

6.5 Recommendations for future research

The study recommends that future research be undertaken as follows:

- An investigation into alcohol use amongst both genders registered in the different year levels.
- A qualitative study investigating the experience of alcohol use amongst females.
- A qualitative study investigating the experience of alcohol use amongst males.

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Appendix 1: Survey questionnaire (MAST – R)

INSTRUCTIONS: ONLY FEMALE STUDENTS MUST ANSWER THE QUESTIONNAIRE

Section A: Demographic questions

Female	Yes
Age (please write in years)	
Religion	**Please write in the religion you follow in the space below. If you are not religious write not religious**
Level of study (1st, 2nd or 3rd year)	

Section B: MAST – R

Instruction: Please answer each question by placing a X in the appropriate box (either YES OR NO). Drinking refers to drinking alcohol. Please answer honestly.

Items	Questions	YES	NO
1.	Do you feel you are a normal drinker? (normal is defined as drinking as much or less than most other people you know)		
2.	Have you ever awakened the morning after drinking the night before and found that you could not remember part of the evening?		
3.	Does any near relative or close friend ever worry or complain about your drinking?		
4.	Can you stop drinking without difficulty after one or two drinks?		
5.	Do you ever feel guilty about your drinking?		
6.	Have you ever attended a meeting of Alcoholics Anonymous (AA)?		
7.	Have you ever got into physical fights when drinking?		
8.	Has drinking ever created problems between you and a near relative or close friend?		

9.	Has any family member or close friend gone to anyone for help about your drinking?		
10.	Have you ever lost friends because of your drinking?		
11.	Have you ever got into trouble at work (or university) because of drinking?		
12.	Have you ever lost a job because of drinking?		
13.	Have you ever neglected your obligations, family, or work (academic work) for two or more days in a row because you were drinking?		
14.	Do you drink before noon (twelve midday) fairly often?		
15.	Have you ever been told you have liver trouble, such as cirrhosis?		
16.	After heavy drinking, have you ever had delirium tremens (DTs)? (This is severe shaking, visual or auditory (hearing) hallucinations)		
17.	Have you ever gone to anyone for help about your drinking?		
18.	Have you ever been hospitalized because of drinking?		
19.	Has your drinking ever resulted in your being hospitalized in a psychiatric ward?		
20.	Have you ever gone to any doctor, social worker, clergyman, or mental health clinic (counsellor or psychologist) for help with any emotional problem in which drinking was part of the problem?		

21.	Have you been arrested for driving under the influence of alcohol?		
22.	Have you ever been arrested, or detained by an official for a few hours, because of bad while drinking?		
23.	Have you ever missed a class because of drinking alcohol?		
24.	Have you ever failed a test or exam because of drinking alcohol?		
25.	Have you ever "lost" friends because of drinking alcohol?		

Section C: Changes to drinking patterns adapted from Mogotsi (2011)

Item	**Question**	YES	NO
26.	Do you ever seriously think about changing your drinking habits?		
27.	Would you benefit in anyway by changing your drinking habits?		
28.	Have you made any changes to the way you drink in the last two months?		
29.	Have you cut down your drinking in the last two months?		
30.	Do you want to stop drinking altogether?		

Section D - The Alcohol Use Disorders Identification Test

Because alcohol use can affect your health and can interfere with certain medications and treatments, it is important that we ask some questions about your use of alcohol. Your answers will remain confidential so please be honest. Place the correct answer number in the box at the right.

1. How often do you have a drink containing alcohol? (0) Never [Skip to Qs 9-10] (1) Monthly or less (2) 2 to 4 times a month (3) 2 to 3 times a week (4) 4 or more times a week	2. How many drinks containing alcohol do you have on a typical day when you are drinking? (0) 1 or 2 (1) 3 or 4 (2) 5 or 6 (3) 7, 8, or 9 (4) 10 or more
3. How often do you have six or more drinks on one occasion? (0) Never (1) Less than monthly (2) Monthly (3) Weekly (4) Daily or almost daily	4. How often during the last year have you found that you were not able to stop drinking once you had started? (0) Never (1) Less than monthly (2) Monthly (3) Weekly (4) Daily or almost daily
5. How often during the last year have you failed to do what was normally expected from you because of drinking? (0) Never (1) Less than monthly (2) Monthly (3) Weekly (4) Daily or almost daily	6. How often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking session? (0) Never (1) Less than monthly (2) Monthly (3) Weekly (4) Daily or almost daily
7. How often during the last year have you had a feeling of guilt or remorse after drinking? (0) Never (1) Less than monthly (2) Monthly (3) Weekly (4) Daily or almost daily	8. How often during the last year have you been unable to remember what happened the night before because you had been drinking? (0) Never (1) Less than monthly (2) Monthly (3) Weekly (4) Daily or almost daily
9. Have you or someone else been injured as a result of your drinking? (0) No (2) Yes, but not in the last year (4) Yes, during the last year	10. Has a relative or friend or a doctor or another health worker been concerned about your drinking or suggested you cut down? (0) No (2) Yes, but not in the last year (4) Yes, during the last year

Section E. Open-ended questions

Items	Open-ended question (Please answer in the space provided)
31.	Do you drink more at social occasion like fresher's ball? If so why?
32.	Do you drink when you are alone? If so why?
33.	If you vomit most of the time when you consume alcohol why do you keep drinking
34.	How do you feel about drinking alcohol?
35.	Is there anything else you would like to say?

Appendix B: Covering letter

UNIVERSITY OF LIMPOPO
(Turfloop campus)

Department of psychology

knel@ul.ac.za

Ext: 2944

Dear female student,

Invitation to participate in a research study titled: An investigation into alcohol use amongst female psychology undergraduate students at the University of Limpopo (Turfloop) campus.

My name is Xolile Sibuyi I'm a Masters student in Clinical Psychology currently doing M1. I would like to invite all female psychology undergraduate students to participate in the study. The aim of the study is to investigate alcohol use amongst female psychology undergraduate students at the University of Limpopo (Turfloop) campus). Recent research has found that females drink as much as their male counterparts. This is a problem as research suggests that females do not tolerate alcohol (physiologically) as well as males and that they also experience more physiological and psychological problems in later life because of drinking. As you can see the research is important so I would really like you to participate. It is important that you fill in the questionnaire as honestly as possible and return it to the marked box placed on a table outside the door of Prof Nel in the department of psychology. Your answers to this questionnaire will be treated confidently. Your co-operation will be highly appreciated. For further inquiries you can e mail me at: sibuyixm@webmail.co.za or e-mail my supervisor Prof K A Nel at: knel@ul.ac.za

Thank you

Xolile Sibuyi

Masters Student (Clinical Psychology)

Supervisor Prof Kathryn Nel (Dept. Psychology)

Appendix C (Ethical Clearance Forms)

FORM B – PART I

PROJECT TITLE: An investigation into alcohol use amongst female psychology undergraduate students at the University of Limpopo (Turfloop Campus).

PROJECT LEADER: Ms XM Sibuyi

DECLARATION

I, the signatory, hereby apply for approval to conduct research described in the attached research proposal and declare that:

1. I am fully aware of the guidelines and regulations for ethical research and that I will abide by these guidelines and regulations as set out in documents (available from the Secretary of the Ethics Committee); and

2. I undertake to provide every person who participates in this research project with the relevant information in Part III. Every participant will be requested to sign Part IV.

Name of Researcher: Xolile Marvia Sibuyi
Signature:……

Date: 03.10.13

For Official use by the Ethics Committee:

Approved/Not approved
Remarks:……...
……..
……..
……..

Signature of Chairperson:……..

Date:……

FORM B - PART II

PROJECT TITLE: An investigation into alcohol use amongst female psychology undergraduate students at the University of Limpopo (Turfloop) campus.

PROJECT LEADER: Ms XM Sibuyi

Protocol for conducting research using human participants

1. Department: Psychology.

2. Title of project: An investigation into alcohol use amongst female psychology undergraduate students at the University of Limpopo (Turfloop Campus).

3. Full name, surname and qualifications of project leader: **Ms Xolile Marvia Sibuyi**

4. List the name(s) of all persons (Researchers and Technical Staff) involved with the project and identify their role(s) in the conduct of the experiment:

Name:	Qualifications:	Responsible for:
Xolile M Sibuyi	B Psych degree: M1 Clinical Psychology	Research

5. Name and address of principal researcher**:** Xolile Sibuyi: Post Boz 1424, Acornhoek 1360.

6. Procedures to be followed: handing out self-report survey questionnaire

7. Nature of discomfort: some students may feel uncomfortable filling in the questionnaire. They will be informed that if they feel uncomfortable they may approach myself or my supervisor for help and be referred to appropriated professionals.

8. Description of the advantages that may be expected from the results of the study: the study will help the university understand female drinking patterns at the university. It may also help females who fill in the questionnaire be more aware of the dangers of alcohol consumption.

Signature of Project Leader:……

Date:……

INFORMATION FOR PARTICIPANTS

PROJECT TITLE: An investigation into alcohol use amongst female psychology undergraduate students at the University of Limpopo (Turfloop Campus).

PROJECT LEADER: XM Sibuyi

1. You are invited to participate in the following research project:

2. Participation in the project is completely voluntary and you are free to withdraw from the project (without providing any reasons) at any time.

3. It is possible that you might not personally experience any advantages during the project, although the knowledge that may be accumulated through the project might prove advantageous to others.

4. You are encouraged to ask any questions that you might have in connection with this project at any stage. The project leader and her/his staff will gladly answer your question. They will also discuss the project in detail with you.

5. It may be that you experience or feel discomfort when filling in the questionnaire. You may contact me at sibuyixm@webmail.co.za if this happens and I will ensure that you are referred to someone that you can discuss the issue with. If you prefer you may contact the project leader Prof K A Nel knel@ul.ac.za who will also ensure that you get the help you need. The advantage of talking to someone will be that the individual will be a professional and able to understand the position you are in. Female students will be better able to understand their use of alcohol when they have completed the survey, this will give them insight into whether they have a problem or not.The results of the study will help guide future research regarding areas that still need investigating on the subject

6. Should you at any stage feel unhappy, uncomfortable or is concerned about the research, please contact **Ms Noko Shai-Ragoboya at the University of Limpopo, Private Bag X1106, Sovenga, 0727, tel: 015 268 2401**.

PART IV

CONSENT FORM

PROJECT TITLE: An investigation into alcohol use amongst female psychology undergraduate students at the University of Limpopo (Turfloop Campus).

PROJECT LEADER: XM Sibuyi

I, _____ hereby voluntarily consent to participate in the following project: An investigation into alcohol use amongst female psychology undergraduate students at the University of Limpopo (Turfloop Campus).

I realise that:

1. The study deals with alcohol consumption amongst female psychology undergraduate students.

2. The procedure or treatment envisaged may hold some risk for me that cannot be foreseen at this stage.

3. The Ethics Committee has approved that individuals may be approached to participate in the study.

4. The research project, i.e. the extent, aims and methods of the research, has been explained to me.

5. The project sets out the risks that can be reasonably expected as well as possible discomfort for persons participating in the research, an explanation of the anticipated advantages for myself or others that are reasonably expected from the research and alternative procedures that may be to my advantage.

6. I will be informed of any new information that may become available during the research that may influence my willingness to continue my participation.

7. Access to the records that pertain to my participation in the study will be restricted to persons directly involved in the research.

8. Any questions that I may have regarding the research, or related matters, will be answered by the researcher/s.

9. If I have any questions about, or problems regarding the study, or experience any undesirable effects, I may contact a member of the research team or Ms Noko Shai-Ragoboya.

10. Participation in this research is voluntary and I can withdraw my participation at any stage.

11. If any medical problem is identified at any stage during the research, or when I am vetted for participation, such condition will be discussed with me in confidence by a qualified person and/or I will be referred to my doctor.

12. I indemnify the University of Limpopo and all persons involved with the above project from any liability that may arise from my participation in the above project or that may be related to it, for whatever reasons, including negligence on the part of the mentioned persons.

SIGNATURE OF RESEARCHED PERSON SIGNATURE OF WITNESS

SIGNATURE OF PERSON THAT INFORMED THE RESEARCHED PERSON SIGNATURE OF PARENT/GUARDIAN

Signed at_____ this ____ day of _____ 20__

Appendix D – Responses to open-ended questions on the survey questionnaire

In the open-ended question section of the questionnaire of the 130 participants in the survey not all answered this section. The participants who did not answer may not have wanted to answer these questions as they felt the questionnaire was too long, they felt the questions too personal or they may not have seen this section.

Some of the responses from students had more than one element for instance, having fun and being influenced by friends thus when the data was interpreted the data from one response could be included in more than one theme.

31. The first question posed was: Do you drink more at social occasions like fresher's ball? If so why?

Examples of responses to question 31:

A. Yes, I want to fit in the standard of my friends because I'm shy

B. Yes, it reduces shyness and also keeps me going all night long so I enjoy it

C. Yes, it makes you fit in with my friends and have fun

Comment – out of the hundred and thirty (130) hundred and fifteen (115) 88.5% answered the open- ended question 31. Fifteen (15) 11.5 % respondents did not answer this question. **Themes emerging from the responses**: out of hundred and fifteen respondents (115) who answered the question, fifty two respondents (52) 40% indicated that they **drink more** at social occasions, while thirty (30) 23.1% respondents indicated that they drink more to have **fun** at these occasions, twenty two (22) 16.8% respondents indicated that they drink more at social occasions because they are **influenced by friends (peer pressure). S**ixty three (63) 48.5% respondents indicated that they don't drink more at social occasions, forty six (35%) respondents didn't indicate their reasons for not drinking more at social occasions and the rest of the respondents who answered this question (5%) indicated that they **don't drink alcohol at all they abstain.**

32. The second question posed was: Do you drink when you are alone? If so why?

Examples of answers to question 32:

A. At times depends on my mood most of the time, I de stress and drown my sorrows in alcohol

B. Yes, when I'm bored I drink alone to relax

C. I feel good because it also acts as a relief from stress and I enjoy when I'm drunk

Comment – out of hundred and thirty (130) respondents, one hundred and fifteen (115) 88.5% respondents answered the open- ended question 32. Fifteen (15) 11.5 % respondents did not answer this question. **Themes emerging from the responses:** Out of hundred and fifteen (115) 88.5% respondents who answered the question, twenty eight (28) 21% respondents indicated that they do drink alcohol when they are alone to **relax** and **de-stress**. Eighty seven (87) 66.9% respondents indicated that they don't drink when they are alone. Furthermore, nineteen (15%) of the respondents also indicated that they drink when they are with their **friends who sometimes influence them while** sixty eight (47%) of the respondents did not indicate their reason for not drinking alone, while 6 respondents (5%) report that they **abstain from drinking alcohol at all.**

33. The third question posed was: If you vomit most of the time when you consume alcohol why do you keep drinking?

Examples of answers to question 33:

A. I keep drinking to keep up with my friends they push me and then sometimes I vomit

B. Yes, because I keep on telling myself that maybe it was the last time I vomit

C. I have never vomited before if it happens I vomit I would quit alcohol for good

Comment – out of hundred and thirty (130) respondents who answered the questionnaire, 94 (72.3%) respondents answered open- ended question 33. Thirty six (27.7%) of respondents did not answer this question. **Themes emerging from the responses:** Out of ninety four (72.3%) respondents who answered the question, 22 (16%) indicated that they do **vomit** most times when consuming alcohol and they continue drinking to have **fun** and some noted that sometimes friends **influence them to continue.** Others reported that it is **not good to drink and vomit** or that they would like to **stop drinking and vomiting altogether**. Out of ninety four (72.3%) respondents who answered the question, 72 (54.4%) respondents indicated that they **don't vomit** when they drink alcohol. Seven (5%) respondents indicated that they **don't drink at all.**

34. The fourth question posed was: how do you feel about drinking alcohol?

Examples of answers to question 34:

A. I feel great, I'm hyperactive it is fun.

B. It's bad for females' health they should stop.

C. Drinking alcohol is not a good thing if you abuse it, because when you are drunk you tend to do things that are out of order and bad

Comment – out of hundred and thirty (130) respondents who answered the questionnaire, one hundred and eighteen (118) 90.8 % respondents answered open- ended question 34. Twelve (12) 9.3% respondents did not answer this question. **Themes emerging from the responses:** out of hundred and eighteen (90.8 %) respondents who answered this question, fifty three (40.8%) reported a positive attitude toward drinking alcohol. They reported that they **feel happy, great, and good** and they have **fun** when they drink alcohol with friends. Forty seven (47) 36.2% respondents reported that they think alcohol is **bad** for people especially for **women's health** and many noted that alcohol **influences people to behave in a bad way.** Five percent of the respondents indicated that **they don't drink at all**.

35. The fifth question posed was: Is there anything else you would like to say?

Examples of answers to question 34:

A. Yes, drinking is not good for ladies because most them get raped because of being drunk while some are involved in fights.

B. There's absolutely nothing wrong with drinking alcohol it just becomes a problem when the alcohol starts to control you and people start acting like wild animals.

C. People should limit how they drink.

Comment – Out of hundred and thirty (130) respondents who answered the questionnaire, one hundred and seventeen (177) 82.3 % respondents answered the open- ended question 35. Twenty three (17.7%) of the respondents did not answer this question. **Themes emerging from the responses:** out of hundred and seventeen (82.3%) respondents who answered this question, twenty (20) 15.4% respondents indicated that drinking is not a problem as it makes **them feel good** but that people, especially **females, should drink with caution**. Thirty four (26.2%) of the respondents to this question indicated that drinking alcohol is bad and that they would like people, especially females, to **quit** drinking alcohol altogether and **not drink**

at all. Twenty three (23) 17.3% of respondents to this question indicated that alcohol is **bad for females**, that it is **unhealthy,** and also that they should **limit their intake of alcohol** or **stop drinking altogether**. Fifty three (40.8%) of the respondents indicated that there is nothing further they would like to add about drinking alcohol. Seven of the respondents stated that they **do not drink alcohol** at all but gave no reason why not.