ALCOHOL USE AMONGST STUDENTS IN A UNIVERSITY OF TECHNOLOGY IN KWAZULU-NATAL, SOUTH AFRICA

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DECLARATION

This is to certify that the work is entirely my own and not of any other person unless explicitly acknowledged (including citation of published and unpublished sources). The work has not been previously submitted in any form to the Durban University of Technology or to any other institution for assessment or for any other purpose.

                                                       05th November 2022

Signature of the student   Date

Approved for submission

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ABSTRACT

BACKGROUND

Alcohol use among students in universities is becoming a major problem worldwide and has the potential of adversely affecting students' performance academically, including in South Africa. Peer group influence in higher education institutions is more significant than parental or religious upbringing because students are away from home, not under their parents' direction anymore and are free to do as they please. Therefore, peer group pressure plays a large role in the socialization of university students and in introducing alcohol as an acceptable culture of tertiary educational institutions.

Aim

The aim of this study was to determine the extent of alcohol use and drinking patterns among university students in a university of technology in KwaZulu-Natal, South Africa, and the relationship of these elements to their academic performance.

Methods

This was a quantitative, non-experimental, cross sectional descriptive study. A structured questionnaire was used for data collection were collected from a purposive sample of 349 undergraduate students in a university of technology in KwaZulu-Natal, South Africa. SPSS 26.0 was used for the statistical analysis of data.

Results

A significant number (67.0%) of respondents were in the age group of 20-24 years. Only 34% of the total number of undergraduate students attested to drinking alcohol, with 29.9% (n=35) drinking 3 to 4 standard drinks on one occasion and 5.1% (n=6) drinking up to 9 or more drinks per sitting. About 25.8% of respondents reported drinking monthly and 1.7% indicated weekly. About 5% of the sampled respondents were problematic alcohol users of which 2% had medium level problems and 1% had high-level problems.

Conclusion

Problematic alcohol use among students in a university of technology was associated with challenges like bunking classes, poor academic achievement, and peer pressure. This study recommends employing joint strategies including faculty, lecturers, and community leaders to reduce problematic alcohol use among students. The existing efforts can be strengthened through awareness campaigns and information given to all levels of undergraduates, starting in orientation week for the first years, a period where students are first acquainted into a new values and society.

Key Terms: Alcohol, Alcohol use, Students, Respondents, University of Technology (UoT).

DEDICATION

My gratitude, thanks and praises go to God the Almighty for giving me the opportunity and strength to complete this study.

He faithfully walked this long journey with me. He holds my hand with His powerful and strengthened Hand, just as He says in Isaiah, **"Fear not, for I am with you; be not dismayed, for I am your God. I will strengthen you, yes, I will help you, I will uphold you with My righteous right hand."—Isaiah 41:10,** *New King James Version*

"Take your Glory Mighty God"

ACKNOWLEDGEMENTS

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LIST OF ACRONYMS

IREC	Institutional Research Ethics Committee
NSFAS	National Student Fund Aid Scheme
SNT	Social Norms Theory
UKZN	University of KwaZulu-Natal
UoT	University of Technology
WHO	World Health Organisation

CHAPTER 1: OVERVIEW OF THE STUDY

1.1 Introduction and background

Alcohol use among young adults in higher education institutions has threatened their lives, (Maithya, Okinda and Mung'atu 2015: 630-631). The National Agency for Campaign against Drug Abuse (2013); indicated that a significant number of undergraduate students at all different levels of training use alcohol and can possibly destroy their lives before they develop to adults and /or dropout of university. These authors further argue that undocumented evidence based on alcohol use amongst adolescence at Kenya Technical Trainers College (KTTC) showed that delinquent behavior is extensive amongst university learners. Various officers like the Chief Security Officers, the Deans of students and the heads of institutions based the above on the increase in reported cases in various institutions during assembly and staff meetings. Reports of incidents included arrests of students by law enforcement agencies, damaging of university assets, bunking classes, displaying aggressive behaviour whilst drunk, irritation of students by their fellow classmates and in a few cases, death under shadowy conditions.

According to Peltzer *et al.* (2013: 45*),* historically, alcohol consumption in South Africa was restricted to locally brewed alcohol. The union of political, economic, and social transformations of the post-apartheid period has been accompanied by an escalation of South Africa's liability to alcohol consumption. These authors further argue that rapid modernization, communal liberalisation, declining border control processes and extension of global trade have led to an increase of alcohol use.

Research related to alcohol use among university students has been conducted (Maithya, Okinda and Mung'atu 2015; and Peltzer *et al.* 2013*),* but almost none or very few in a university of technology. This study therefore aims to close this gap and seeks to determine the extent of alcohol use and drinking patterns and their relationship to academic performance among students in a UoT located in the Pietermaritzburg area in KwaZulu-Natal midlands, South Africa.

1.2 Problem statement

Based on the anecdotal report from the Chief Security Officer at the university of technology under study, in the last five years there have been various incidents of alcohol use by students which have resulted in violent behaviour such as assaults, rape, fighting each other while drunk, property destruction within the campus and even death. University students consume alcohol to cope with academic stress and negative emotions. Alcohol makes them look mature and others use alcohol as a coping tool especially when academic performance is below the required standard (Onyebuchukwu *et al.* 2015: 149). According to Ansari, Stock, and Mills (2013: 1175) alcohol use is associated with poor academic performance and usually contributes to a high rate of students dropping out from college. The effects of drinking alcohol result in poor performance of students in their studies due to memory impairment, so their performance can result in their results being below the pass mark, so they do not graduate (Kyei and Ramagoma 2013: 79). Anecdotal evidence is that young students experiment with alcohol to fit in and enjoy the freedom of being away from home under the discipline of parents. This study therefore seeks to determine the extent of alcohol use and its academic effects among students in a university of technology.

1.3 Aim

The aim of this study was to determine the extent of alcohol use and drinking patterns among university students and the relationship of these elements to their academic performance.

1.4 Objectives

The objectives of the study were to:

- Determine the extent of alcohol use among UoT students.
- Determine the drinking patterns among students in a UoT.
- Determine the relationship between alcohol use and academic performance of students in a UoT.

1.5 Significance of the study

The results and recommendations of this study might benefit university students in the sense that they may realize the health hazards caused by alcohol use and the negative effects it has on their educational progress. This study might also assist policy makers in higher education to better understand the current situation on alcohol use among university students and make necessary changes to address the problem. Furthermore, the results of this study might assist in strengthening the university with strategies for early identification of students who are at risk of problematic use of alcohol and strengthen support mechanisms for those challenged students.

1.6 Conclusion

This chapter introduced and discussed the background to the use of alcohol in institutions of higher learning, the problem statement and significance of the study was stated as well as the aims and objective of the study. The following chapter will discuss the literature review in detail.

1.7 Definition of terms

Abuse: Persistent or periodic excessive alcohol/drug use inconsistent with or unrelated to acceptable medical practice (Mafubelu 2013: 9).

Alcohol: According to Blackwell (2014: 22) alcohol is a transparent, volatile, inflammable fluid manufactured by fermentation of carbohydrates Taken in small quantities it is a nervous system stimulant, in larger quantities it is a nervous system depressant. In this study, alcohol refers to any alcoholic beverage consumed.

Alcohol Addiction: is a disease that affects people of all walks of life, with the severity of the disease, how often they drink, and the quantity of alcohol they consume varying from person to person. It is characterized by obsessive engagement in satisfying stimuli by using alcohol, despite its adverse consequences (Kyei and Ramagoma 2013: 99).

Alcoholism: is the failure to control drinking due to both physical and psychological dependence that can cause a severe deficiency in social or occupational functioning (Ansari, Stock and Mills 2013: 1181).

Harmful use: This is the pattern of substance misuse that damages the person's physical or mental health (Uys and Middleton 2014: 439).

University: A university is an organization of advanced or tertiary training and exploration which awards educational degrees in numerous academic disciplines. Institution of higher education typically provides undergraduate and advanced education to students.

1.8   Structure of the dissertation

Chapter 1: Summary of the study

Discussed here are the contextual, problem statement, scope as well as aim and objectives of the study.

Chapter 2: Literature review

Literature in the field of study globally, regionally and locally. Theoretical framework, its main elements and its application.

Chapter 3: Research methodology

This chapter describes the research methodology used to conduct this study. Techniques and methods of the study are also discussed.

Chapter 4: Discussion and interpretation of findings

In this section, findings and collected data are analysed with regards to the aim and objectives of the study.

Chapter 5: Discussions of results

This chapter contains the discussion of the results of the study in relation to other previous local and global studies.

Chapter 6: Summary of findings, recommendations and limitations

CHAPTER 2: LITERATURE REVIEW

2.1   Introduction

This section discusses appraisal of the previous texts on alcohol usage amongst undergraduates in institutions of higher education globally, regionally and locally. The theoretical framework used to guide this study is also discussed in this chapter. McCombes (2020: 1) states that literature review is appraisal of scholarly sources on a precise subject. It provides an impression of up-to-date information, allowing you to identify significant philosophies, methods, and gaps in the current research

2.1.1 Search strategies

The researcher used textbooks and peer-reviewed journals from EBSCO Host and Google Scholar to gain access to databases. The following databases were used to search for literature: Academic Search Complete, Africa Wide Information, AFHS Consumer Medication Information, Cumulative Index to Nursing and Allied Health Literature Plus with full text, ERIC, Health-Consumer Edition, Health Source-Nursing Academic, Medical Literature On-Line with full text and Summon Search.

2.1.2 Inclusive and exclusion criteria of literature

- Only articles written in English, full text were included.
- Articles within the year 2013 to 2022 were used.
- Articles that used both qualitative and quantitative research were used.

2.2 Global context of alcohol use among students

In the United States, standard drink is defined as a drink with 14 grams (0.6 fluid ounces) of pure alcohol. This is found in 12 ounces of regular beer, which is usually about 5% alcohol, 5 ounces of wine, which is typically about 12% alcohol and 1.5 ounces of distilled spirits, which is about 40% alcohol, (National Institute on Alcohol Abuse and Alcoholism 2017). The World Health Organization [WHO] (2011) cited by

Davoren *et al.* (2016: 174) mentioned that hazardous alcohol use causes 3.3 million deaths globally on yearly basis. The WHO (2014) further discovered that there are five recognized patterns of alcohol use, namely, safe drinking, hazardous drinking, harmful drinking, binge drinking and alcohol dependence. Barbor *et al. (*2011) cited in Nyandu 2017: 8) indicated that safe drinking refers to patterns of liquor usage that do not result in the increase of risk or display of harmful social, physical and psychological consequences to the drinker or significant others. Additionally, these authors identified hazardous drinking as a pattern of alcohol intake that raises the danger or contrary results for the drinker or those around him or her whilst harmful drinking is said to be a pattern of alcohol use that warrants adverse consequences to the body and psychological health without meeting the full clinical conditions of alcohol dependence. Binge drinking is taking four or more alcoholic drinks on one occasion for women and five of more for men. Furthemore, alcohol-dependent drinking is a pattern of alcohol use characterised by high-risk drinking and moderate or severe dependence on alcohol (Barbor et al., 2011 cited by Nyandu 2017: 8-9). Extreme binge drinking, also known as high-intensity drinking, refers to drinking at levels far beyond the binge threshold, resulting in high peak blood alcohol concentrations. Though definitions vary, some studies define extreme binge drinking as 2 or more times the gender-specific binge drinking thresholds that is, 10 or more standard drinks for men, and 8 or more for women (Patrick *et al.* 2016: 112). Forms of alcohol use differ among continents and nations, but recent statistics from the WHO demonstrated that the European Union is the substantial drinking country globally WHO (2014) in Davoren *et al.* (2016: 174). Hazardous alcohol use around the world is the cause for 3.3 million deaths yearly (WHO 2015).

Europe reports the highest volume of alcohol intake in the world, with Ireland and the United Kingdom recording the maximum levels of binge drinking and drunkenness, both these countries report high levels of harmful drinking among university students (Davoren *et al.* 2016: 173). These authors conducted a systematic review of 2 128 articles retrieved from electronic databases and found that the proportion of students who reported hazardous alcohol consumption ranged from 62.8% in 2003 to 84% in 2014. More than150 000 students in the United States of America develop alcohol-related health complications yearly, while between 1.2% and 1.5% specified that they tried to commit suicide within the past year due to extreme drinking of alcohol or its

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misuse (Kelch 2013: 104). According to O'Brien *et al.* (2014: 1) an alarmingly high proportion (84%) respondents were hazardous alcohol consumers in a study conducted in all sport locations within a two-mile distance of ten universities across England.

Similarly, 11% of surveyed students were alcohol consumers in Lebanon (Ghandour *et al.* 2014: 671) and alcohol use was predominant amongst 6.9 % Medical Sciences undergraduate students in Iran (Abbasi-Ghahramanloo *et al.* 2015: e21945). Al-meri, Abd Al-Badri and Lafta (2016: e11942) stated that in Baghdad out of 139 students who attested to misusing alcohol, about 64% of them were irregular users of beers. About 23.7% were sensible beer users and 12.2% of students were heavy alcohol consumers, (both beer and spirit). These authors further indicated that alcohol intake was rampant among students at universities in Baghdad city.

The above studies highlight the fact that alcohol use by students is a global and not only a South African problem.

2.3 African context of alcohol use among students

The African culture agrees to males drinking alcohol during cultural ceremonies such as weddings, harvest time, cleansing rituals for family members or when they go to work in the chief's fields. Traditionally brewed alcohol would be prepared by females at home and given to males to drink for such celebrations and this ultimately progresses to harmful drinking behaviour due to dependency on alcohol use (Mkhatshwa 2017: 8). Currently, alcohol use is a challenge experienced by every individual, both young and old, while its influence is likely to be extreme amongst young adults. Tulu and Keskis (2015: 47) conducted a study in Mikelle University in Ethiopia and commented that alcohol use amongst undergraduate students is growing and becoming a major problem faced by many governments. Students drink alcohol as a coping mechanism and most of them justify their behaviour (Onyebuchukwu, Sholarin and Emerenwa 2015: 140). Chesang (2013: 102) concurred that alcohol misuse knows no limits, it affects societies regardless of race, political and economic position, gender and sexual orientation, socio-educational status, age and place of residence. In Zambia, it was discovered that majority of female students who drink

alcohol is high (45.1%) when compared to their male counterparts (38.7%) (Galeemelwe 2014: 4).

Alcohol alone kills around 2 million people each year, devastating families and bringing sorrow to millions of other people. In addition, alcohol consumption is not legally forbidden in Ethiopia and there is no age limit related to alcohol use (Yismaw and Kebede 2015: 454). In their study with 454 participants from the University of Gondar in Ethiopia, they found that the frequency of alcohol use amongst students that constantly used and experienced alcohol for the period of the last 30 days, was 48.23% and 26.4% respectively (Yismaw and Kebede 2015: 454). In addition, the WHO (2014:11) attested that in Ghana and Zambia, a significant percentage of female respondents used more alcohol compared to their male counterparts.

Several forms of unsafe behaviours, which in the end affect the well-being and academic performance, accompany alcohol use among students. Onongha (2014: 276) concurred that students in Nigerian tertiary institutions are youngsters and some of them participate in various hazardous behaviours such as smoking, careless driving, premarital and haphazard sexual activities, alcohol misuse (binge drinking) and drug abuse.

Swahn, Palmier and Kasirye (2013: 7) found in their study in Uganda that 67% of respondents used alcohol and 33.2% reported problematic drinking, while 34.8% reported drunkenness. Peer norms have the resilient encouragement on a student's personal drinking behaviour with lower rates of alcoholism being found when the norms governing the use of alcohol are clear and the behaviour of alcohol users being consistent with the normative expectations (Vellios and Walbeek 2015: 38).

2.4 Local context of alcohol use among students

South African studies revealed that like other countries, the usage of alcohol is a grave problem in institutions of higher education. Kyei and Ramagoma (2013: 77) conducted a study at the University of Venda regarding the use of alcohol on campus with a sample of 209 students who were surveyed. Findings showed that over 65% drank alcohol and 49% misused it. This study further revealed that there was a strong

relationship between alcohol and staying on campus. The authors further reported that the proportion of students who stayed on campus and drank alcohol was 73.6% compared to 54.7% of those who stayed off campus. Thus, statistics indicated that students who reside on campus used more alcohol than those who stayed off campus. The study further revealed that in general 62.7% of the studied sample were consuming alcohol against 37.3% who were not consuming alcohol (Kyei and Ramagoma 2013: 79). This was on par with what was observed in Mpumalanga College where 64% of students were using alcohol (Mkhatshwa, Rammopo and Chelule 2017: 32). In Limpopo University it was observed that 54.8% students consumed commercially brewed beer, 32% bottled wine and 30% home brewed beer (Mafubelu 2013: 16).

Among 120 randomly selected students from the University of Utopia in South Africa, 72.5% of respondents were found to drink alcohol (Cherian and Mboweni 2014:1573). In a study on different campuses in Limpopo, 17% of the sample admitted to having bunked a class because of drinking, 20% missed teaching lessons because of hangover, 44% of participants testified to attending class after having quite a few drinks and 25% reported to getting lower marks (Mogotsi *et al.* 2014: 191). Over 90% of respondents stated that they had never got into trouble of violating university rules due to poor behaviour and consumption of alcohol (Galeemelwe 2014: 56).

Results from a study by Kyei and Ramagoma (2013: 78) conducted among students living in a self-catering residence at the University of Cape Town found that 75% of respondents in the sample drank alcohol. Half (50%) of students in the sample were moderate to heavy drinkers. Students further asserted that parties were the most popular occasions for drinking, with 60% of drinkers naming parties as places where they drank (Kyei and Ramagoma 2013: 78). In addition, Kyei and Ramagoma (2013: 78) explained that during pre-colonial days, the consumption of alcohol was preserved for elders and other senior or authoritative figures, including health practitioners and customary people. They further indicated that alcohol intake was uncommon amongst adolescence and females of childbearing age. Overuse of alcohol is a grave encounter, which authorities from colleges are finding difficult to comprehend (Kyei and Ramagoma 2013: 77). Alcohol can restrict a person's capability to make good decisions. People dependent on alcohol may say things that they do not actually mean and do things they

usually would not do. They may also lose touch with genuineness and think that things are better or worse than they certainly are. Kyei and Ramagoma (2013: 79) further asserted that the effects of drinking alcohol can lead to poor performance of students due to memory impairment making it difficult for such students to graduate as their work presentation is continuously below average.

Students also engage in violent behaviour, including property destruction, and fighting while drunk, to mention a few. There is evidence that university students use alcohol and engage in misconduct because of it. According to Galeemelwe (2014: 23) male students were at more risk of self-harm than their female counterparts as well as increased harm to others. Approximately 1,825 college students between the ages of 18-24 die after two years due to alcohol elated damages, such as drunken driving, gunshot wounds and stabbing with a sharp instrument (Galeemelwe 2014: 75). Cebekhulu (2020: 17) stated that there were instances of stabbing at two of the KwaZulu-Natal College of Nursing campuses. Tesfai (2016: 44) conducted a study in the University of KwaZulu-Natal in Durban with a sample of 334 respondents and 68% specified a lifetime of alcohol use and 57.3% concurred to using alcohol in the former three months.

According to the above, it is quite clear that almost all university students globally are faced with the challenge of abusing alcohol, which has a huge and negative impact on their lives in every way. This study determined the extent of alcohol use and drinking patterns of undergraduate students in a UoT and the relationship of this behaviour to students' academic performance.

2.5 Theoretical framework

A framework is described as the overall conceptual underpinning of a study which enables the phenomena to be described precisely and offers and confirms systematic knowledge claims (Polit and Beck 2021: 114).

2.5.1 Social Norms Theory

This study is grounded on the Social Norms Theory (SNT) which began its research in the 1980's by Perkins and Berkowitz who discovered that college students normally

exaggerate their beliefs around drinking practices of other students (Berkowitz and Perkins, 2016: 25). These misunderstandings were at important variance with the actual drinking patterns and standards of alcohol intake. The social norms approach seeks to correct these misperceptions to lessen risky drinking. SNT is grounded on social learning theory and more specifically, the theory of planned behaviour and reasoned action theory (Berkowitz and Perkins 2016: 25).

SNT holds that it is the perceived expectations of peer groups who approve or disapprove of a particular behaviour. It also posits that people are highly influenced by what they think their peers are doing or thinking and conform to what they believe is the norm. This perception can cause people to overestimate problem behaviours and underestimate healthy behaviours (Berkowitz 2012 as cited by Rogers, Rumley and Lovatt 2018: 508). SNT also suggests that subjective norms that emanate from inappropriate estimation of what others do will influence social behaviour (Berkowitz and Perkins 2016: 25).

Figure 2.1 below is a visual illustration of SNT and its elements.
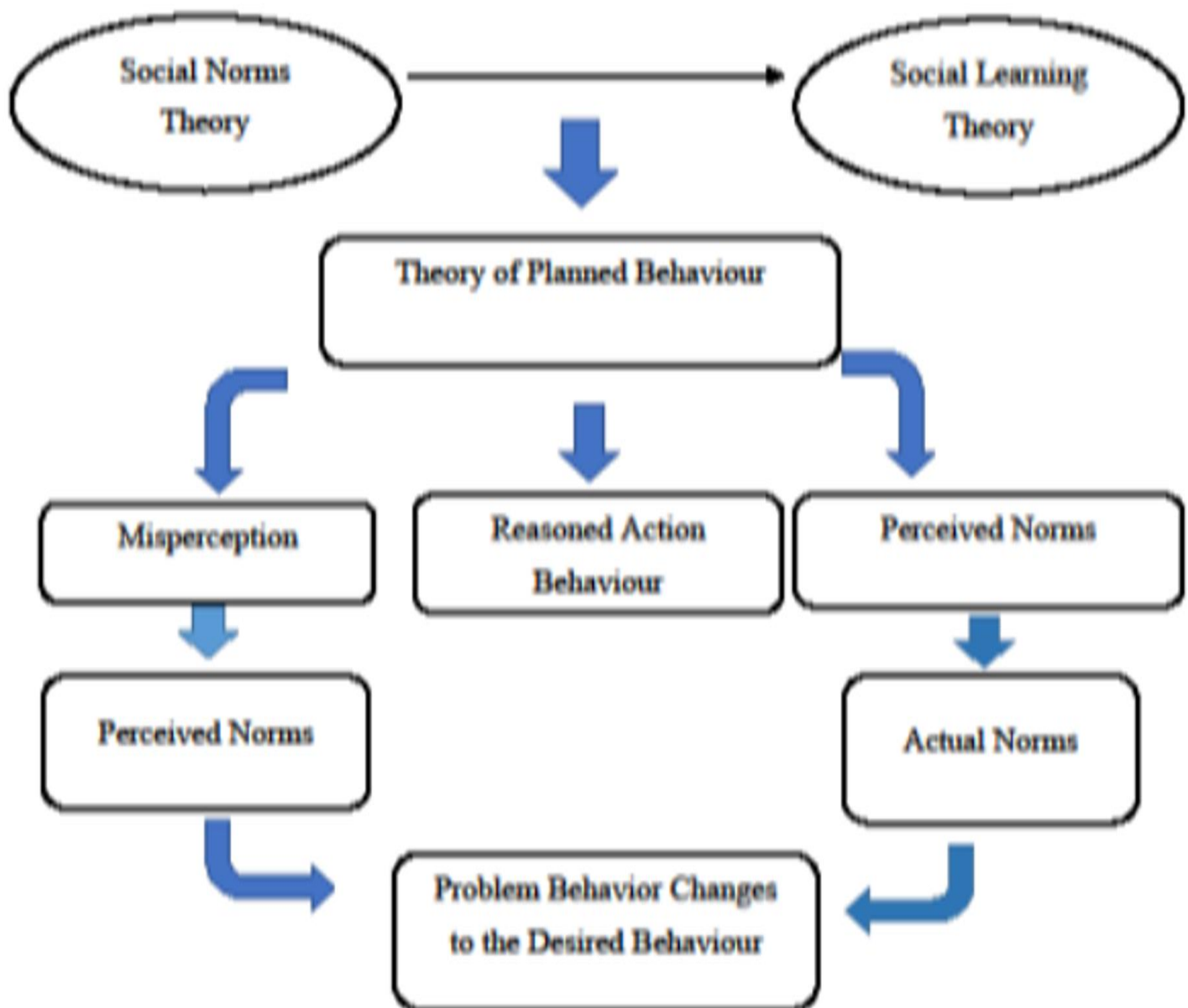
Figure 2.2: A Framework of social norms theory Source: Adapted from Heise (2013)

2.5.3 Main elements of SNT

The main elements of SNT are the following:

- The SNT approach is grounded on the notion that actions are frequently built on fabrication about or misunderstandings of the attitudes and/or behaviours of others.
- When these are understood as genuine, they strengthen the behaviour that is adopted around these misperceptions.

- There is often a submissive acceptance of these misperceptions with little determination to transform them.
- The misperceptions are self-reinforcing in that they maintain problem behaviours that are falsely believed to be normative and act to discount opinions and actions that indicate them to be false and see these opinions as being nonconforming.

When accurate information about the actual norms is given to individuals, they begin to express them as consistent with the accurate, healthier norms and the adoption of these new beliefs puts up barriers to problem behaviours inconsistent with the actual norms.

The researcher opted for this theoretical framework because the aims of the interventions were to get individuals to understand their subjective perception of the behaviour and what they thought the normative behaviours of their peers were and get them to associate these with the real normative behaviour. Furthermore, the researcher wanted the respondents to relate their subjective norms to healthy norms. This might help them to ascertain corrupt and destructive behaviours and in response start to detect and even control good practices.

2.5.2 Application of the SNT in alcohol use among students

There are several theories that give clarifications for alcohol use amongst undergraduate students. This study has adopted to utilize the SNT framework. The adoption of this theory was influenced by the fact that some students usually exaggerate their opinions around the drinking practices of other students. SNT is a large institute of literature analyzing the purposes of social norms in relation to personal alcohol use. SNT encourages changes of drinking practices based on what students believe their peers think of them. Champion, Lewis and Myer (2015: 75) stated that peer alcohol norm is the strongest negotiator studied to date in the alcohol use literature and reliably mediator regarding amount and frequency of personal alcohol use.

New norms that have emerged are drinking rivalries among students where bar owners and representatives from breweries promoters award the fastest drinkers. The winner being judged based on the extent of alcohol consumed at a specific time. The prize is free alcohol and the title of "The boss" (Onyebuchukwu, Sholarin and Emerenwa 2015: 148). Cebekhulu (2020: 15) further states that students who severely use alcohol may pick friends with the same drinking pattern, in order to compete. On the other hand, if the same students/peers are introduced to healthy social norms then this can reduce students drinking behaviour and promote a change to healthy lifestyles.

Students belong to social groups for social reference hence they identify with these groups to talk like them and do what they do. Students within peer groups usually try to identify with these groups for a sense of belonging and the action of drinking alcohol is followed just because fellow peers also drink. Edwards, Witkiewitz and Vowles (2019: 6) confirm that students may benefit from the use of SNT to assist them to decrease alcohol use.

2.5.3 Application of the SNT to the current study

The main elements of SNT were used to guide the study during development of the questionnaire. Furthermore, they were integrated during discussion of results of the study regarding use of alcohol by students.

2.2 Conclusion

The literature review confirms that alcohol use amongst undergraduate students, is not only a South African problem, but is widespread globally and in Africa. It also highlights that unsafe drinking accounts for academic problems and is associated with behavioural problems. SNT is broadly used in studies that focus on alcohol use among students and behaviour problems. To this end, the present study used this theory to determine alcohol use among students in tertiary institutions. The next chapter discusses research methodology in detail.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 Introduction

This chapter discusses the research design, research setting, population, inclusion and exclusion criteria, sampling process, data collection, ethical consideration, data analysis, research rigor and research ethics.

3.2 Research design

Research design is known as the complete plan to address a research question, including stipulations for augmenting the study's integrity (Polit & Beck 2017:743). A quantitative descriptive cross-sectional survey design was used to explore the extent of alcohol use amongst students in a university of technology. In quantitative research, components of a situation are observed, described, and documented as they naturally occur. It is a formal, objective, and systematic study procedure (Grove, Burns and Gray 2013: 706). To learn more about traits within a given subject of study, descriptive studies are used. The idea is to paint a picture of events as they would naturally occur. By obtaining and analyzing data, explaining it, and utilizing visual aids like graphs and charts to help the reader understand the data distribution, descriptive designs strive to discover "what is" and help identify problems with current practice (Grove, Burns and Gray 2013: 692).

A second broad class of non-experimental studies is descriptive research. Its objective is to notice, characterize, and record characteristics of a situation as it occasionally occurs spontaneously to serve as a starting point for theory (Polit and Beck 2017: 206). According to Kesmodel (2018: 390) descriptive studies mostly aim to provide estimates of prevalence of behaviour traits while analytical studies aim to assess relations between different parameters.

3.2.1 Cross sectional design

A cross sectional design involves collecting data once at a single time point as opposed to the longitudinal design, which collects data over an extended period (Polit and Beck 2017: 204). It is the most appropriate design when assessing the commonness of sickness or traits, prevalence of attitudes and information among patients and health personnel, and in validation studies comparing, for example, different measurement mechanisms, and in trustworthiness studies (Kesmodel 2018: 390).

3.2.2 Surveys

McCombes (2020: 3) states that a survey is a research technique used for collecting data from a predefined group of respondents to obtain knowledge and understandings into several topics of interest. The author further states that they can have various purposes, and researchers can conduct it in many ways subject to the approach chosen and the study's goal. McCombes (2020: 3) identified two main classes of surveys: A questionnaire, where a list of questions is circulated by mail, online or in person, and respondents fill it out themselves and an interview, where the researcher asks established questions by phone or in person and records the answers.

In this study, a survey was performed on 349 respondents in from a university of technology in KZN.This was done to obtain different views from a large sample of respondents as there was social value attached to the study. This was useful in generating knowledge that can lead to strategies to curb the problematic use of alcohol by undergraduate students which affects their academic performance and behaviour.

3.2.3 Research paradigm

This is a set of mutual beliefs and a worldview about how scientists view and understand the world. The common world views that exist for scientists are positivism, which is aligned with quantitative research and constructivism, which is aligned with

qualitative research. Positivists trust that there is a single reality, which can be measured and acknowledged, thus they are more likely to use quantitative approaches to measure this reality (Patel 2015: 1). Park, Konge and Artino (2020: 691) identified that the positivist paradigm has four philosophical foundations or core fundamentals: ontology (how reality is seen), epistemology (how the nature of knowledge is perceived), axiology (the role and principles of the research process), methodology (how the paradigm describes processes related with conducting science), and rigor (the criteria used to explain the quality of research in the paradigm). The researcher identifies with positivism and therefore used quantitative data collection and analysis approaches in order to determine alcohol use among students in a university of technology.

3.3 Research setting

The current study was conducted in a university of technology [UoT] in Pietermaritzburg, KwaZulu-Natal midlands and is one of seven campuses and offers training for Education, Civil Engineering and Nursing students. Pietermaritzburg is the capital city of KwaZulu-Natal. It was established in 1838 and is presently administrated by uMsunduzi Municipality. This city has two tertiary education institutions including a campus of the University of KwaZulu-Natal and two other campuses that belong to the UoT that was used as research site. The campus under study is situated in Imbali, which is a semi-urban township that was founded in the 1960s when people migrated from the rural areas to the towns. It is about five kilometers from the city center.

3.4 Recruitment of respondents

Recruitment commenced after requesting and obtaining permission from the UoT research committees, gate keepers and the three different heads of departments to conduct the study (appendices 2a, 2c, 2e, 2g). The researcher recruited respondents according to their level of study namely, level two, three and four as per inclusion criteria. Respondents where the study was conducted were registered in three different departments namely, Civil Engineering, Education and Nursing Departments. To ensure that all departments at campus were represented, respondents from all

three disciplines were recruited. Due to the Covid-19 pandemic, physical contact between the researcher and respondents was avoided at all costs. Recruitment of respondents to participate in the study was done online using their email addresses, which are student number based. Communication to respondents regarding the purpose of the study, its benefits, confidentiality and withdrawal was provided using information letter (appendix 1b). Respondents were informed that participation was voluntary and that there would be no compensation for their participation. They were assured that respondents who choose to partake could pull out from the study at any time without being disadvantaged. No form of force or coercion was used on the respondents. The respondents were assured that no data would be released in a way that linked individuals to specific answers. Information would be openly presented in a comprehensive format. Those who agreed to participate in the study were given a link to the online survey and asked to give consent online (appendix 1c).

3.5 Population

Population is a separate collection of individuals, whether that collection encompasses a nation or a group of people with mutual characteristics. In statistics, a population is a group of individuals from which a statistical sample is drawn for a study thus, any selection of individuals grouped together by a collective feature can be said to be a population (Momoh 2021: 1). The population in this study were all students from second to fourth levels of study in the faculties namely, Department of Education, Department of Civil Engineering and Surveying as well as the Department of Nursing. The total population was 1440 (table 3.1).

Table 3.1: Study population

Discipline	Second Year	Third Year	Fourth Year	Total
Nursing	109	101	90	300
Education	230	230	230	690
Civil Engineering	150	150	150	450
Total	489	481	470	1440

3.6 Sampling and Sampling method

Polit and Beck (2017: 743) and Kuitunen-Paul (2018: 32) state that sampling is a method of choosing a portion of the population, which represents the total population. Polit and Beck (2017: 743) further explain that sampling refers to the procedure of selecting a subset of the population to represent the whole population. The core of sampling is that it should capitalize on representativity of the selected population and to allow generalization to be as precise as possible (Polit and Beck, 2017: 743). Non-probability purposeful sampling method was utilized in this study as a sampling strategy of selecting respondents. All students who fit the inclusion criteria and agreed to participate were sampled until the sample size was reached.

3.7 Sample size

A total of 349 students was the required sample size and were sampled as follows: 62 from the Department of Nursing, 147 from the Department of Education and 96 from the Department of Civil Engineering (Table 3.2). A further 45 students (15%) were added to this number to make up for non-responses, totaling 350 students in total. The minimum required sample size using Cochran's formula was 350 with alpha = .05 and margin of error = .05. The statistician assisted with sample size calculation (Appendix 3a).

Table 3.2: Sample size

SAMPLE +15% Discipline	Year 2	Year 3	Year 4	Totals
Nursing	22	21	19	62
Education	49	49	49	147
Civil Eng.	32	32	32	96
Total	103	102	100	305

3.7.1 Inclusion criteria

- All 2nd, 3rd and 4th year students registered in the UoT under study. The researcher believed that these students will be able to provide rich data for the

study as they have experienced campus life and can provide information regarding academic performance related to alcohol use.

3.7.2 Exclusion criteria

- First year students registered in the UoT as they might not have rich data for this study since they have had minimal experience of university life and exposure to academic assessments because during the time of data collection, they might be in the university for less than a year.
- All students at other UoT campuses.

3.8 Data Collection

According to Polit and Beck (2017: 489), data collection is the process of gathering and measuring information. The data that is collected should yield valid and accurate results according to the purpose and objective of the study.

3.8.1 Data collection tool

The researcher used a structured questionnaire, (Appendix 4) to collect data for this study. The researcher modified a structured questionnaire based on literature and theoretical framework. This was done with the help of a statistician. Permission to use and modify the questionnaire was obtained from the author of the original questionnaire. The questionnaire was used for the present study because it is practical and allows a lot of information to be collected from a large sample of respondents in a short period of time (Nyandu 2017:24).

The questionnaire included four sections; Section A collected demographic variables; Section B was on drinking patterns of students and Section C was to determine effects of alcohol on students' academic performance. The last Section D required respondents to comment on the relationship between alcohol use and their academic performance. The questionnaire was in English as this is the medium of instruction in the UoT. The questionnaire was unidentified and the respondents did not have to

communicate directly with the investigator in a face-to-face interview. The questionnaire took about 20 minutes to complete.

3.8.2 Pilot study

Pretesting of the questionnaire was conducted online with six students (two from each discipline) to assess the content and face validity and reliability of the questionnaire. These students did not form part of the main study. After completion of the questionnaires, a group discussion was held on Microsoft Teams with these respondents to check whether it was necessary to rephrase or make changes in the questionnaire. Respondents reported that the questionnaire was simple and easy to understand. Responses to the questions and statements indicated that respondents understood the tool, as a result no changes were necessary.

3.8.3 Validity and reliability

Validity is defined as the point at which the tool measures what it is made to measure. Consistency plus accuracy are the measures of validity (Polit and Beck 2017: 175). This study used the same data collection tool throughout the study. A pre-test study was conducted with six students who did not form part of the main study to determine whether the instrument measured what was intended by the researcher. The trial study addressed the content validity of the survey (Polit and Beck 2017: 237).

Reliability refers to the accuracy and uniformity of information attained in a study and is most often related with approaches used to measure research variables (Polit and Beck 2017: 175). In addition to pretesting the tool, a statistician was consulted during the formulation of the questionnaire to ensure the appropriateness of the tool in measuring the research variables. Data was collected from respondents of different disciplines within the university.

3.8.4 Data collection

Data collection refers to the comprehensive gathering of evidence required for the purpose of the research or the specific objectives, questions or hypothesis of the study (Grove, Burns and Gray 2012: 523). Before data collection, the researcher followed all ethical processes required by the UoT Research Committees. The researcher obtained ethics clearance (appendix 1a and 3c) from Institutional Research Ethics Committee (IREC) (REC number 246/21), and other relevant research committees. Gatekeeper permission (appendix 2b), to collect data from students was obtained from the Institutional Research and Innovation Committee (IRIC). In addition, permission to collect data from the Education, Civil Engineering and Nursing students was granted by the heads of departments concerned (Appendices 2d, 2f and 2h respectively).

3.8.5. Data collection process

Data collection was conducted online. I invited students to an online pre data collection meeting. In this meeting, I formally welcomed respondents and clarified to them what the collection process entails. At first, informal discussion was held to create a relaxing atmosphere. I presented a brief introduction of the study. I also informed respondents that confidentiality and anonymity would be maintained by not mentioning their names on the records. I informed them about the questionnaire, time allocated to complete it and when to submit back. This was done to gain their confidence and prepare them of what to expect during the process. All students who agreed to participate in the study were then provided with an online link to complete the questionnaire. Respondents completed the questionnaire at their convenience but were given five days to submit the completed tool back.

3. 9 Data analysis

On completion of data collection, raw data were coded and then entered onto Microsoft Excel and loaded onto SPSS. Data were analysed using SPSS version 26.0 with the help of a statistician (appendix 3b). According to Boswell and Cannon (2014: 338), quantitative data scrutiny is the numeric illustration and manipulation of observation

using statistical practices for the express purpose of describing and explaining the results of research as they relate to the hypothesis. Furthermore, Brink (2014: 177) emphasizes that data analysis entails categorising, ordering, manipulating and summarizing the data. In order to test for significant trends in the data, inferential statistics were applied, with the p value level of significance being set at $p < .05$. Results were presented using descriptive statistics in the form of tables and figures to describe the data graphically. In order to obtain an overview of the data, frequency tables, pie charts and bar graphs were utilized. Moreover, in terms of inferential statistics, the chi-squared test of association was conducted to check if there was a difference between males and females in frequency of alcohol consumption and if there were differences between the various levels of study.

3. 10 Data management and storage

Raw data were coded and then entered onto Microsoft Excel and then loaded onto SPSS version 26.0 for analysis. Completed questionnaires and analysed data were downloaded onto a password protected external hard drive known only to the researcher. These electronic records will be deleted after five years by the researcher.

3.11 Ethical considerations

When research is conducted on human beings, the researcher has an obligation for ethical conduct (Polit and Beck 2017: 464).

3.11.1 Ethics approval

Ethics clearance to conduct the study was granted by the Institutional Research and Ethics Committee (REC 246/21), (Appendix 2b), permission was then sought and granted by all relevant gatekeepers (see appendices 2a, 2c, 2e and 2g).

Grove *et al.* (2013: 162) and Polit and Beck (2017: 152) identify certain human rights that necessitate security in research including the right to self-determination, the right to protection from uneasiness and injury, the right to confidentiality, and the right to reasonable management or justice.

3.11.1 The right to self-determination

This study treated respondents autonomously by allowing them to voluntarily choose to participate in the study. This was achieved through respecting their rights to protection from harm, informed consent, fair treatment and justice and their right to confidentiality.

3.11.2 The right to protection from discomfort and harm

Respondents were informed that no injury, threat or embarrassment was to be expected when partaking in this study.

3.11.3 The right to informed consent

Respondents were provided with an information letter (Appendix 1b) to read and understand; explaining the study and what their involvement would be. This was done to give them all the relevant information before they provided consent to participate in the study. Respondents were asked to sign a permission form when they decided to contribute to the study.

3.11.4 The right to fair treatment or justice

Information was given that participation was voluntary, they were free to withdraw from the study at any time and that they would not be compromised in any way.

3.11 5 The right to confidentiality

Respondents were reassured that confidentiality would always be maintained; their names would be known to the researcher only. Codes were allocated to identify them, and their names would not be mentioned when results were reported. Filled questionnaires and consent forms were downloaded onto a password protected external hard drive.

3.12 Chapter Summary

In this chapter, all the essential methodological processes for the research study were discussed in-depth. This included the research design, sample, and sampling procedures as well as data collection and analysis processes. The ethical considerations of the study were also discussed. The next chapter will present all results of the study.

CHAPTER 4: PRESENTATION OF RESULTS

4.1 Introduction

The results of the study are presented in this chapter. The aim of this study was to determine alcohol use amongst students in a UoT in KwaZulu-Natal. This was a quantitative, non-experimental descriptive cross-sectional investigation
The objectives of this study were:

- To determine the extent of alcohol among university students
- To determine drinking patterns among students.
- To determine the relationship between alcohol use and academic performance of second, third- and fourth-year university students.

4.2 Sample realization

The sampled for the study was 350 respondents and 349 questionnaires were completed and returned. This response rate was representative enough for the study to have a high statistical power. This response rate of the study was 99.7%.

4.3 Demographic data

Demographic profile of respondents comprised of ethnic group, age, gender, marital status and religious practice and these variables are summarised in Table 4.1. There was a relationship between alcohol use and demographic features of respondents like gender, age as well as religious practices as discussed below.

Table 4.1: Demographic characteristics of respondents

Variables Ethnic group	Frequency	Percentage
Blacks	311	89.1
Coloureds	20	5.7
Whites	1	0.3
Indian	17	4.9
Age		
20-24 years	232	67.6
25-29 years	113	32.0
30-36 years	4	0.40
Gender		
Male	109	31.2
Female	239	68.5
Marital Status		
Single	325	93.1
Married	21	6.0
Widowed	2	0.6
Divorced	1	0.3
Religious Practice		
Christian	228	65.3
Muslim	70	20.1
Nazareth	44	12.6
Other	7	2.0

4.3.1 Ethnic group

The majority of respondents were black 89.1% (n = 311) and whites were the least represented in the study 0.3% (n = 1). The race distribution indicates the demographics of KwaZulu-Natal. This was not surprising as the majority of students in the UoT under study are black Africans from previously disadvantaged communities who are now able to access higher education through National Student Fund Aid Scheme (NSFAS) in the post-apartheid South Africa.

4.3.2 Age

A significant number 67.0% (n = 232) of respondents were in the age group of 20-24 years. This is the age group when the youth is very active, energetic and seeking new experiences. The least represented group were 30–36-year-olds (0.14%: n = 4). These are older students who are settled and more focused in life. The mean score for age was M = 23.48 with standard deviation (SD) = 3.159. The above age group reflects the majority of young people who are studying at universities, which are full of youth, as the country's future leaders.

4.3.3 Gender

Female respondents formed majority of the sample, 68.5% (n=239). Male respondents were almost half the number of their female counterparts 31.2% (n = 109).

4.3.4 Marital status

A significant number of respondents 93.1% (n = 325) were single and a very small proportion 6.0% (n = 21) were married. This is not unusual as undergraduate university students are young adults.

4.3.5 Religious practice

A high proportion of respondents 65.3% (n = 228) revealed that the religious affiliation of most of the undergraduate sample were Christians. The least number of respondents indicated that they belonged to the Nazareth religion 12.6% (n = 44).

4.4   EXTENT OF ALCOHOL USE AMONG UNIVERSITY STUDENTS

The majority of respondents (66%, n = 232) indicated that they did not drink alcoholic beverages. The following section will report on 34% (n = 117) of the total number of respondents who attested to drinking alcohol.

Of the respondents who drank alcohol, 29.9% (n = 35) drank 3 to 4 standard drinks on one occasion, 5.1% (n = 6) drank up to 9 or more drinks per sitting, 25.8% (n = 77) drank monthly, and 1.7% (n = 2) drank weekly.

4.5 DRINKING PATTERNS AMONG STUDENTS

The drinking patterns section of the questionnaire asked about the level of drinking among respondents together with the quantity and incidence of alcohol consumption.

4.5.1 Number of drinking compared to non-drinking students

The majority of the total respondents 66% (n = 232) indicated that they did not drink alcohol, which was statistically significant (p = <.001). The number that indicated to drink alcohol was 34% (n = 177) (Table 4.2).

Table 4.2: Number of drinking vs non-drinking respondents

Variables Do you drink alcohol	Frequency	Percentage
Yes	117	35.5
No	232	66.5

4.5.2 When did you start drinking alcohol

There was a slight difference between respondents who indicated that they started drinking alcohol in high school (46.2%, n = 54) and those who started drinking after completing school (45.3%, n = 53). It is concerning to learn that some respondents reported that they started drinking alcohol in primary school. This indicates that students entering university initiated drinking alcohol at a young age long before they commenced their tertiary education.
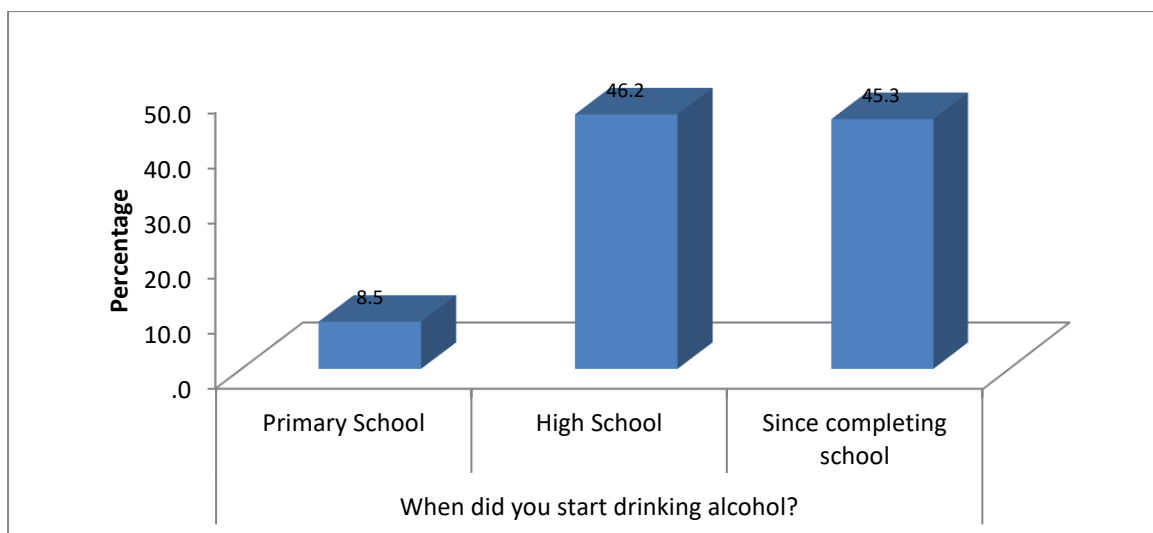
Figure 4.1: Period they started drinking

4.5.3 At what age did alcohol become part of your lifestyle?

There is a significant relationship between race and when respondents started drinking alcohol, Fisher's exact = 10.912, p = .015. A significant number of coloureds started drinking alcohol in primary school. Almost half of the sampled respondents, 41% (n = 97) reported that alcohol became their lifestyle between ages 15 and 20 years. These respondents are of much concern since they started drinking alcohol very early in their lives and the majority of these students are black since they form the majority of the sampled population.

4.5.4 How often, on average, do you have a drink containing alcohol?

The majority of respondents 68.5% (n = 77) drank once a month or less, 19.7% (n = 23) drank less often / once a week, 12% (n = 14) once a week, and 0.9% (n = 1) 2-4 times a week (Figure 4.2). Although there were only a few students who reported drinking frequently, they are of significance for this study as they are at risk of becoming alcoholics and are the ones that need support and assistance from the university.
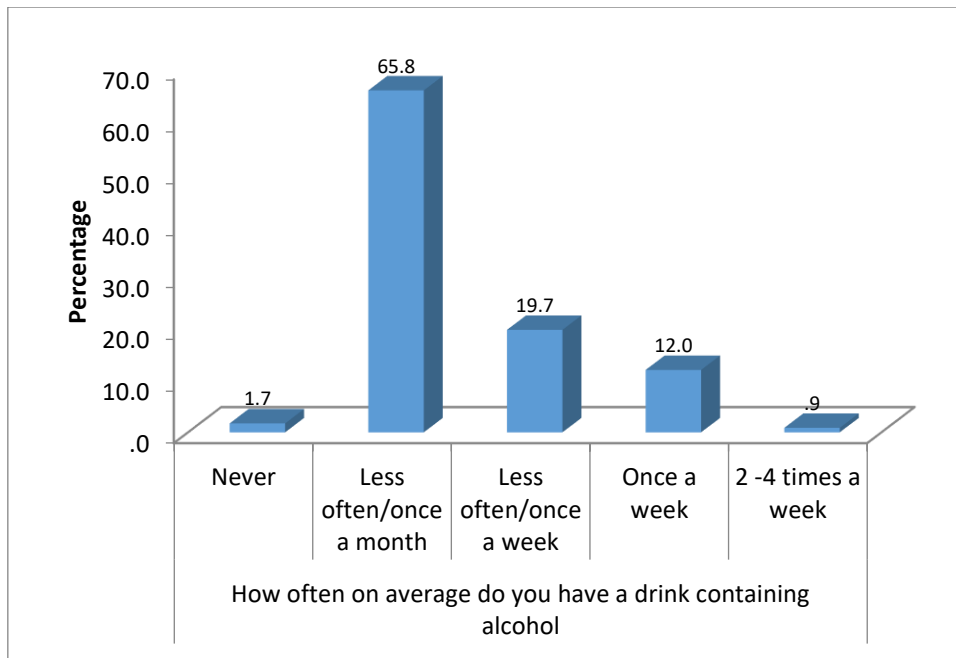
Figure 4.2: Frequency of drinking

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

As shown in Figure 4.3, and was explained in chapter 2, the majority of respondents 29.9% (n = 35) drank 3 to 4 standard drinks (330 ml or more) on a typical day. However, 23.9% (n = 28) drank 7 to 8 drinks and 5.1% (n = 6) took 9 or more drinks. The latter group of respondents are of significance for this study and of concern because if respondents drink more than two drinks on one occasion, their behaviour could reach hazardous levels.
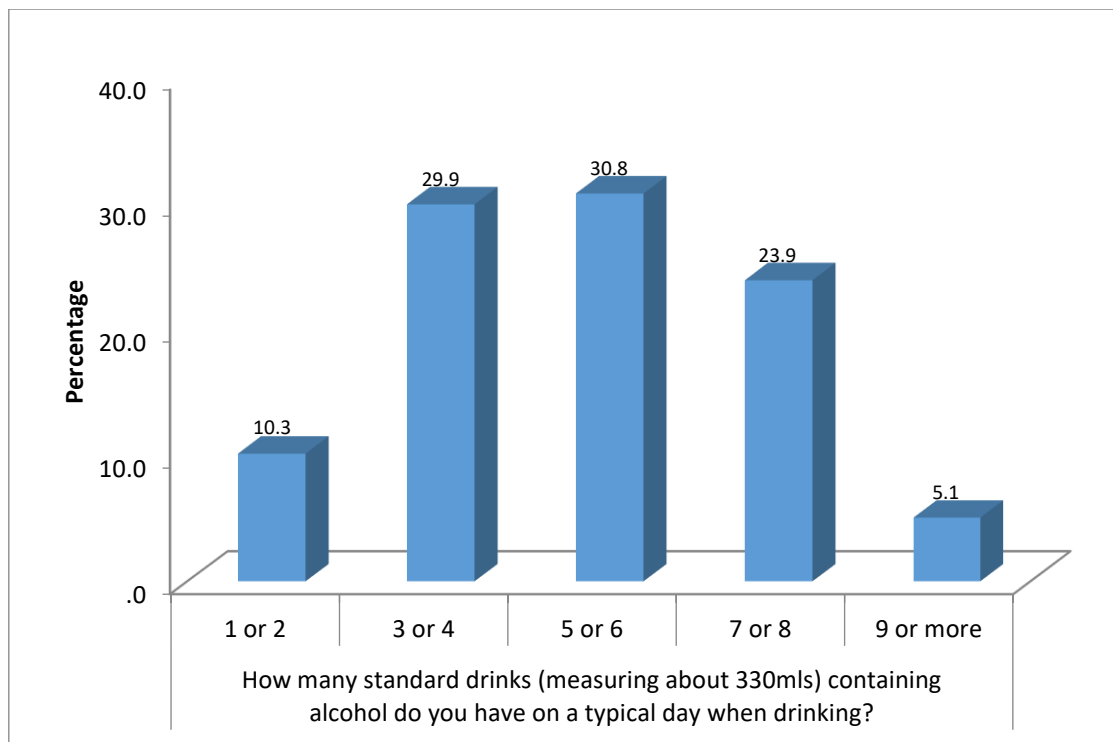
Figure 4.3: Number of standard drinks on a typical day

4.5.6 With whom do you drink alcohol?

A high number of black respondents 47.9% (n = 56) reported that they drank with their peers. This is a high number as the majority of university students live with their peers in university residences. This is likely to increase the frequency of drinking alcohol among university students. Some respondents 27.4% (n = 32) reported drinking with family, or their girl/boyfriend 23.1% (n = 27), and very few 1.7% (n = 2) reported drinking alone.
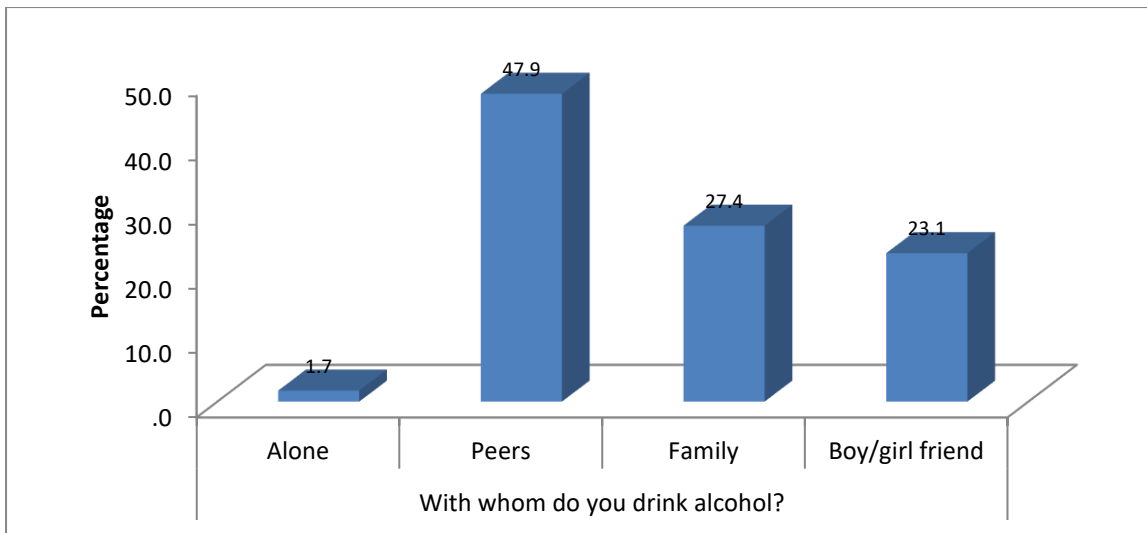
Figure 4.4: Regarding with whom you drink alcohol

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

There is a moderate negative correlation between academic performance and how often six or more standard drinks are consumed on one occasion (rho = -.280, p =.002). Regarding how often respondents have six or more standard drinks (measuring 330 mls or more), it was observed that a higher frequency of drinking is associated with lower academic performance.

The rate of alcohol usage in the past month is shown in Table 4.3. While the majority of students consumed alcohol less than monthly, it is alarming that most of the remaining respondents (23.1%, n = 27) consumed six or more standard drinks monthly and 8.5% (n = 10) drank six or more drinks weekly. This is significant for this study as these students are at risk of soon developing alcoholism.

Table 4.3: How often they have six or more standard drinks

Frequency	Observed N	Percentage
Never	10	8.5
Less than monthly	70	59.8
Monthly	27	23.1
Weekly	10	8.5
Daily	00	0.0
Total	117	100.0

4.5.8 Regarding how often they attempted to stop drinking in the previous year

A maximum of 64.1% (n = 75) respondents indicated that in the past year, they had never attempted to stop drinking, whereas 18.8% (n = 22) respondents attempted to stop drinking less than a month only. Likewise, 16.2% (n = 19) and 0.9% (n = 1) attempted to stop drinking monthly and weekly respectively (Table 4.4).

Table 4.4: Regarding how often they tried to stop drinking

Frequency	Observed N	Percentage
Never	5	64.1
less than monthly	22	18.8
Monthly	9	16.2
Weekly	1	0.9
Daily	0.0	0.0
Total	117	100

4.5.9 Regarding how often they tried to stop drinking?

A high proportion of respondents 74.4 % (n = 87) reported to have never failed to do what was normally expected, 15.4% (n = 18) failed less than monthly, 8.5% (n = 10) and 1.7% (n = 2) reported to have failed monthly and weekly respectively. Overall, this

is a disturbingly high proportion of students in a tertiary institution and is of significance in this study because this could negatively affect their studies.

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

The majority of respondents 82.1% (n = 96) reported that they had never needed a morning drink to get themselves going after a heavy drinking session, while 9.4% (n = 11) agreed that they needed such a drink less than monthly. This is concerning as this a big number for this study. A further 6.8% (n = 8) and 1.7% (n = 2) had the same experience monthly and weekly respectively. This is of great concern because this is a clear indication that these students might develop alcohol dependency and need urgent support.
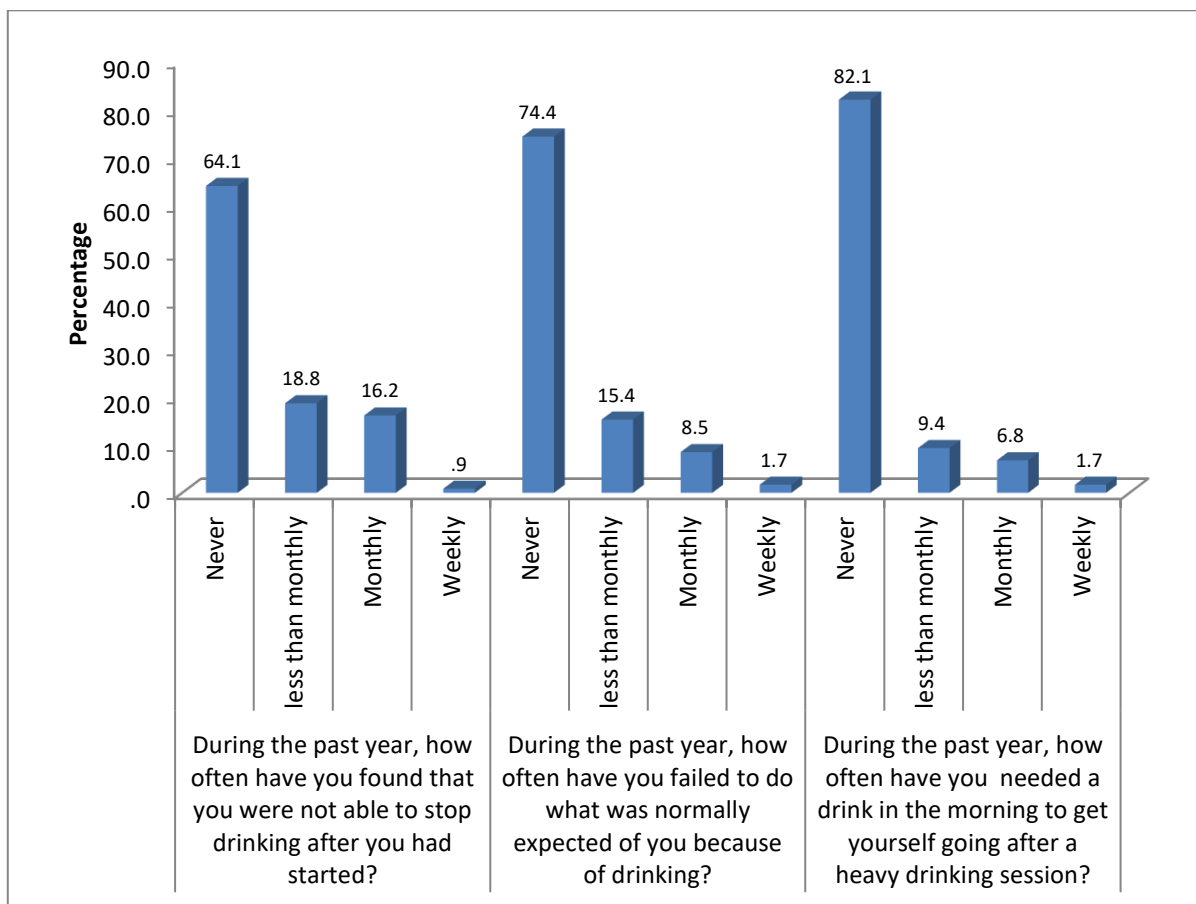
Figure 4.5: Regarding how often they have needed a drink in the morning to get themselves going after a heavy drinking session

4.6 RELATIONSHIP OF ALCOHOL USE AND ACADEMIC PERFORMANCE

The use of alcohol and its relationship to student's educational progress are discussed in this section. In this section of the questionnaire respondents were asked the questions where they had to respond with "yes" or "no" and were requested to further clarify if their response was "yes". Themes were created from the respondent's explanatory responses.

4.6.1 Since you started studying at DUT have you dropped behind academically compared to other members of your initial student group?

Respondents were asked to state whether they had dropped behind academically from their initial student group. A majority of respondents 81.2% (n = 95) had not dropped behind and only 18.8% (n = 22) agreed to have indeed dropped behind academically. This concerns the researcher as this can be a precursor for dropping out from their studies.

There is a significant difference in perceived academic performance depending on whether they have dropped behind compared to other students in their group,
t -(115) = -2.394, p = .018. Those who have not dropped behind are significantly more satisfied with their academic performance (M = 3.14) than those who have dropped behind (M = 2.52).

Two themes emerged: academic reasons and hangover. Most of the respondents who answered "Yes" to this question 11% (n = 13) stated they dropped behind because they had neglected their academic obligations and activities by spending too much time drinking and socialising. Other respondents 7.2% (n = 8) could not attend to their academic duties on several occasions due to hangover and thus dropped behind academically. One, 0.6% (n = 1) respondent indicated that they had financial constraints and ended up finding a place to stay near a tavern and thus was exposed to alcohol more often.

4.6.2 Have you ever missed a class because you were drinking the previous day?

Respondents were asked to state whether they had ever missed a class because they had been drinking the previous day: 88.9% (n = 104) respondents had never missed class while 10.3% (n = 12) of respondents agreed to have missed a class after drinking alcohol the previous day. Only 2.6% (n = 3) of these students reported that they were struggling with their studies due to alcohol and 1.7% (n = 2) could not attend classes because of a hangover while 5.4% (n = 6) were too tired to attend class after drinking the previous day. Only 0.6% (n = 1) respondent reported to have drunk until late leading to missing classes on several occasions because he resided near the tavern. Even though this might look like a small number, it is of concern for this study because these students might end up not completing their studies.

4.6.3 Have you ever attended a class after having been drinking a short while before?

The majority of respondents 83.8% (n = 99) indicated that they had never attended class after having been drinking a short while before, but a surprisingly large number of respondents in this study 15.4% (n = 18) reported that they had attended class after drinking a short while before. On further analysis regarding what happened when they attended a class after drinking in terms of whether they were able to learn or not, results indicated that equally, 0.9% (n = 1) got detention whereas 0.9% (n = 1) was referred for Academic Development. Some of the respondents reported that nothing happened, their day went normally, while 3.6% (n = 4) did not learn anything because they could not concentrate and 0.9% (n = 1) failed to cope, and 0.9% (n = 1) was sick.

4.6.4 Have you ever been reprimanded/ disciplined for drinking?

A minimum proportion of respondents 9.4% (n = 11) reported having been disciplined for drinking. Further investigation indicated that 1.7% (n = 2) respondent were reprimanded for failing modules, whereas 1.7% (n = 2) were reprimanded for dropping results. Nonetheless, 1.7% (n = 2) were reprimanded for not attending classes at all. Also, 1.7% (n = 2) were scolded by family. Equally, 1.7% (n = 2) were reprimanded for

missing deadlines and 0.9% (n = 1) was reprimanded for poor progress. Significantly 90.6% (n = 106) had never been disciplined for drinking. This is a serious problem and needs further investigation as to why such a large number were never reprimanded. It could be because they were in control of their drinking habit and drank alcohol safely and responsibly during weekends only.

4.6.5 Are there any challenges you experienced (because of your drinking alcohol) since starting your studying at the UoT up until the present e.g., bunking of classes or missing a test?

Maximum students 89.7% (n = 105) stated that they had certainly not experienced challenges related to drinking alcohol since they started studying in the UoT. A few respondents 2.7% (n = 3) stated that they that they had overcome the challenges, whereas 8.1% (n = 9) respondents stated that they have not yet overcome the challenges. These students need special attention and support to overcome challenges that they had without jeopardising their studies and future.

4.6.6 Have you ever been counselled about your academic performance?

The majority of respondents 83.8% (n = 98) indicated that they have never been counselled about their academic performance. This is a very large number to have been left uncounseled, yet they had challenges. A group of 10.2% (n = 12) respondents indicated that they underwent some counselling in relation to poor academic performance and only 4.2% (n = 5) were counselled for missing classes, and 1.8% (n = 2) were counselled for severe drinking (Figure 4.6).
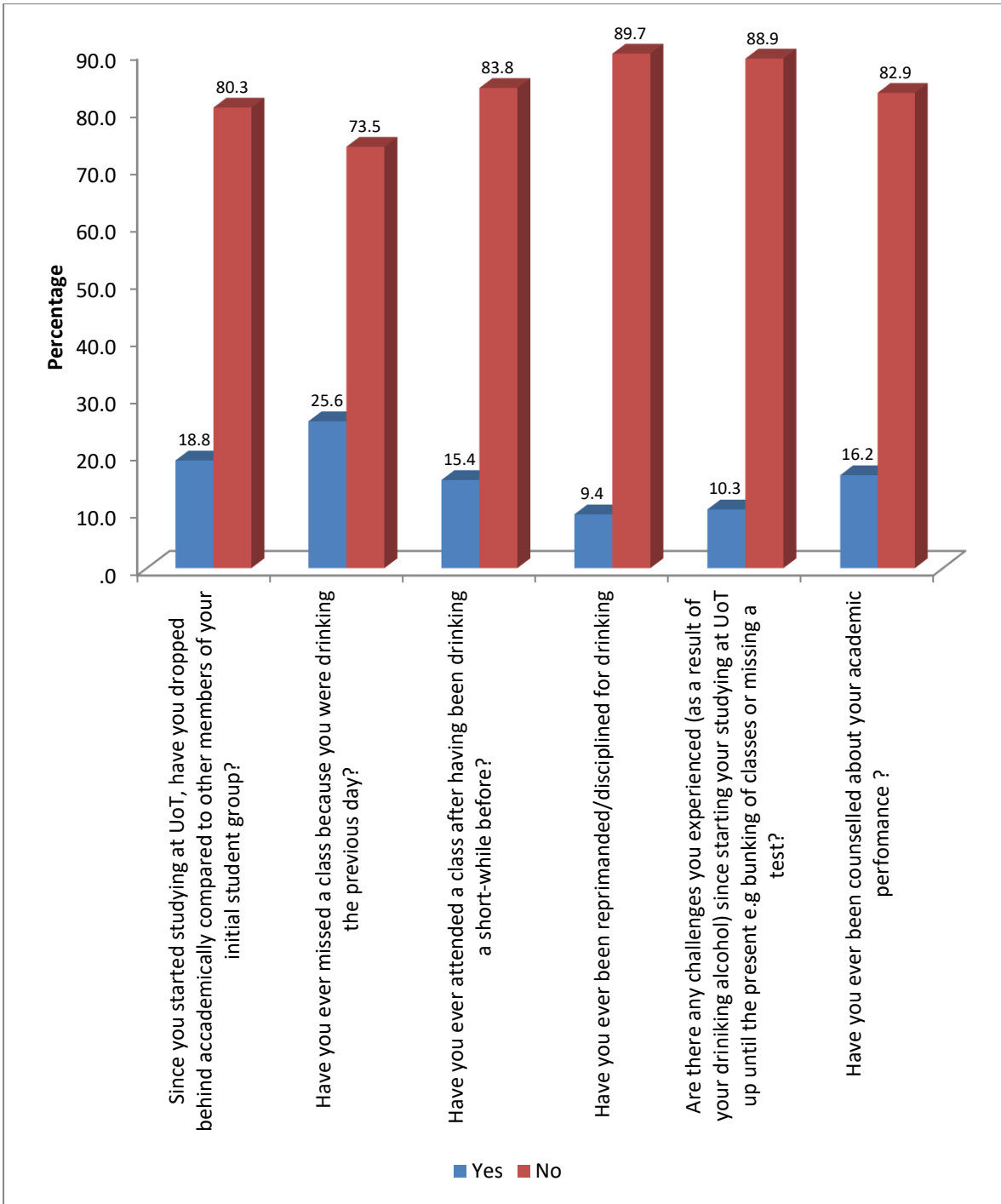
Figure 4.6: challenges due to alcohol use

4.7 ACADEMIC PERFORMANCE

In this section, respondents were requested to specify their views about the use of alcohol. This section discusses results on students' educational progress. The results of this section are presented based on the six components namely: achieving

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academic goals set at the start of tertiary education, overall satisfaction with test and examination results, making steady progress in academic programme, performing poorly in class, spending less time on academic activities than needed to in order to do well or pass, having fallen behind with studies (Figure 4.7).

4.7.1 I have achieved the academic goals I set at the start of my tertiary education

Respondents indicated that they were satisfied with the achievement of academic goals that they had set at the start of their tertiary education because there was a significant agreement that academic goals that were set had been achieved (M =3 .01), (t = t test) t (348) = 1.486, p ≤ .885. Results indicated that 44.1 % (n = 154) disagreed that they had achieved their academic goals.

4.7.2 Overall I am happy with my test and examination results

Regarding overall happiness with test and examination results, respondents revealed that they were happy (M = 2.99), t (348) = 1.479, p ≤ 0.079; however, a significant number of respondents 44.7% (n = 156) were unhappy with their results and 9.2% (n = 32) were neutral.

4.7.3 I am making steady progress in my academic program

The significant number of respondents, (M = 3.11), t (348) = 1.475, p ≤ 0.148 were making progress while 74.8% (n = 261) agreed to be making steady progress in their academic programme. However, 13.7% (n = 48) disagreed that they were making steady progress in the academic programme. This clearly indicates that many respondents are challenged academically.

4.7.4 Regarding performing poorly in class

There was a significant disagreement that respondents were performing poorly in class (M = -.321), t (348) = 4.400, p ≤ 0.001, and (M = 2.96), t (348) = 1.445, p ≤ 0.579 disagreed that they spent less time on academic activities than they needed to in order

to do well and (M = -.296), t (346) = -1.445, p ≤ 0.579 also disagreed that they had fallen behind with their studying (Figure 4.7).
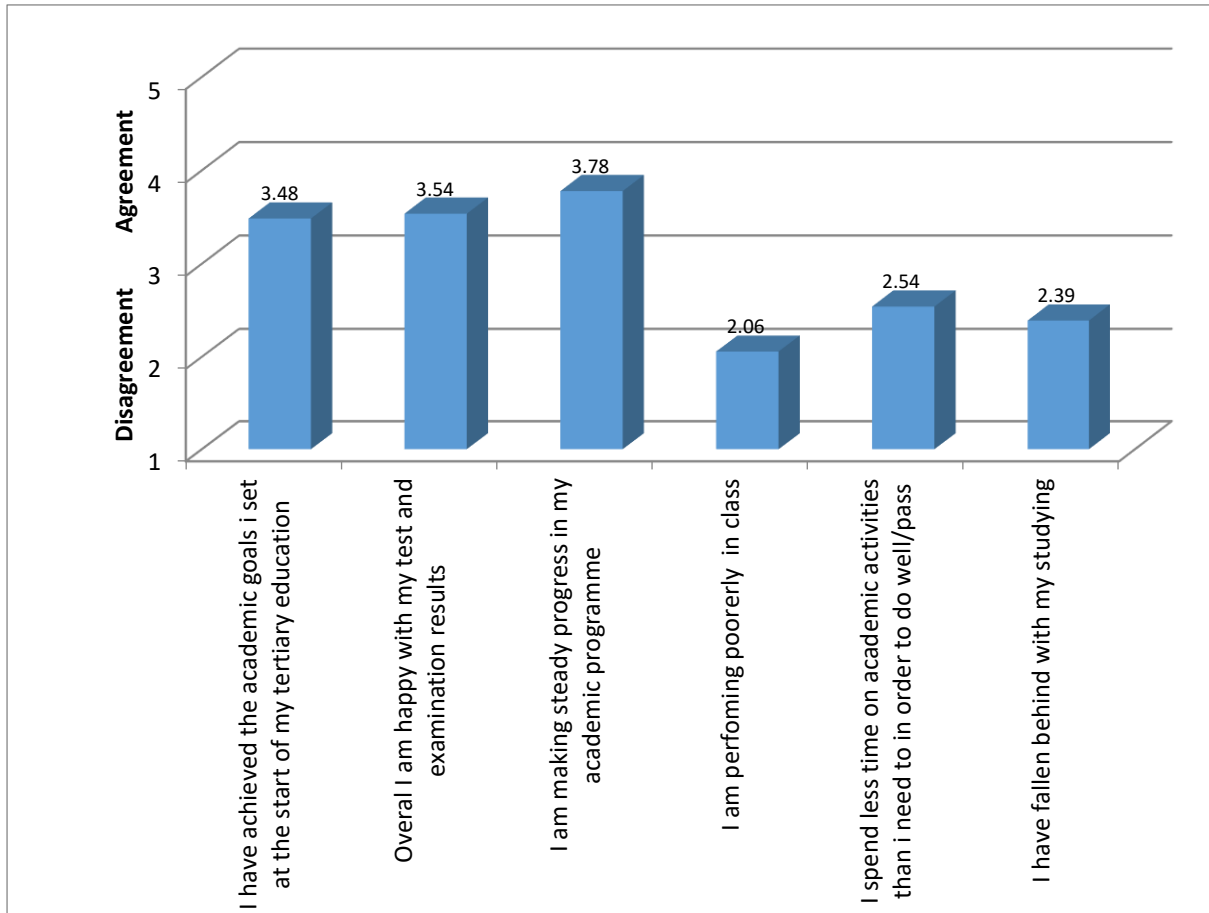
Figure 4.7: Average perceptions regarding academic performance or progress of respondent

4.8 Relationship between drinking and academic performance

There was significant difference in perceived academic performance depending on who they drink with, F (3, 150) = 4.541, p = .004. Those who drank alone or with family were more satisfied with their academic performance. Association between progress of respondents in addition to age was checked using Pearson's correlation There was a moderate negative correlation between academic performance and how often 6 or more standard drinks are consumed on one occasion, rho = -.280, p =.002. Higher frequency of drinking is associated with lower academic performance.

Great change was noted in academic performance depending on whether they have dropped behind compared to other students in their group, t (115) = -1.177, p =.240. Those who have not dropped behind are significantly more satisfied with their academic performance (M = 2.40) than those who have dropped behind (M = 0.95) (Figure 4.8).
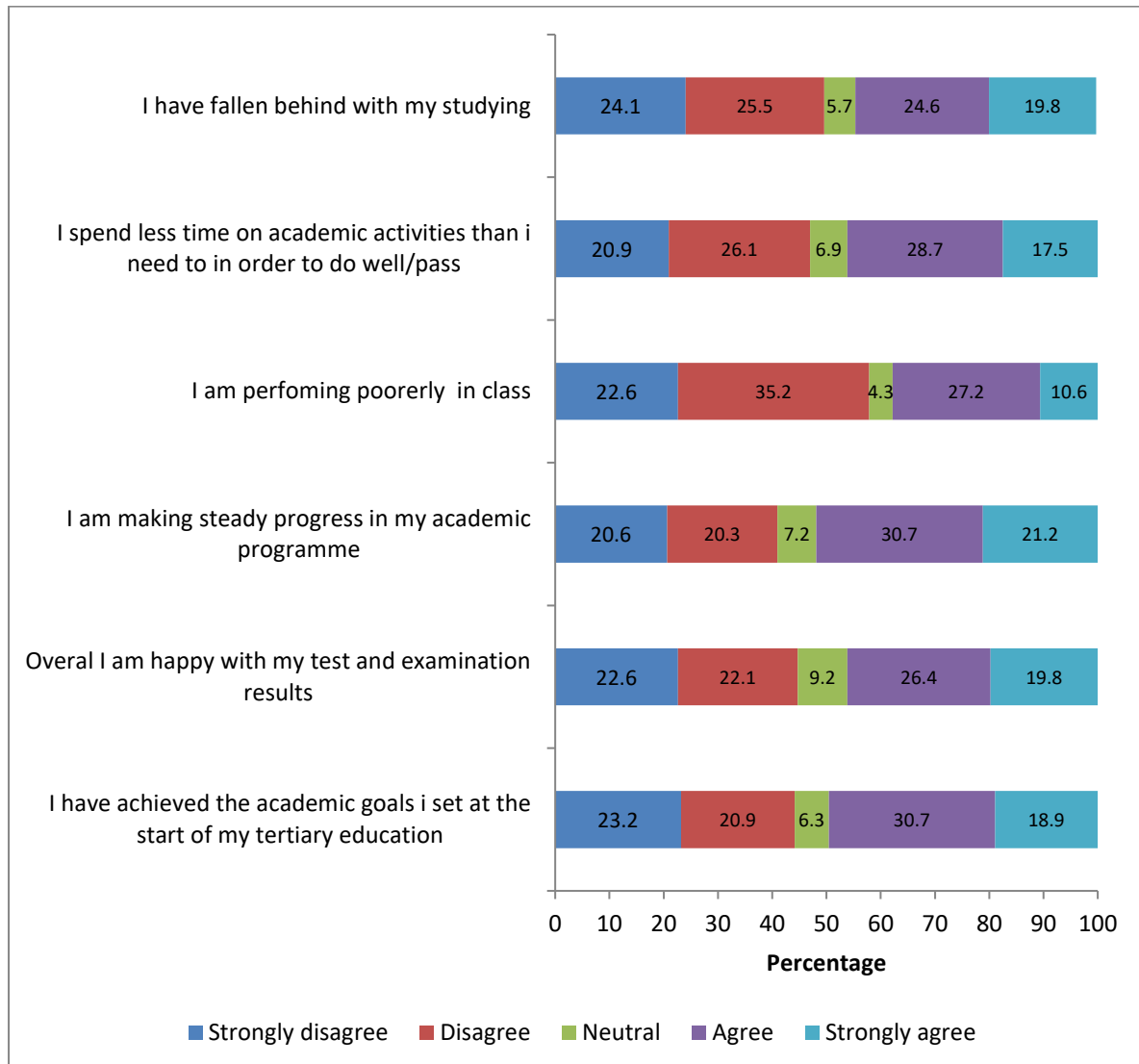
Figure 4.8: Test for significant agreement or disagreement

4.9   Chapter summary

In this chapter, the results of the study were presented. The results have portrayed risky drinking patterns among students. Drinking habits and demographic characteristics like age, gender plus ethnic group were somehow linked together to illustrate these variables relationship to alcohol use among university students. The next chapter entails a detailed description of the results.

CHAPTER 5: DISCUSSION OF RESULTS

5.1 INTRODUCTION

The aim of this chapter is to discuss the results presented in the previous chapter. The results of the study are discussed in terms of the demographics, extent of alcohol use, drinking patterns and relationship of alcohol use to students' academic performance. The sample for this study was 349 respondents. The results are presented and discussed in terms of the three objectives of the study, namely:

- To determine the extent of alcohol among university students
- To determine drinking patterns among students.
- To determine the relationship between alcohol use and academic performance of second, third- and fourth-year university students.

5.2 Demographic characteristics of the total sample

The majority of the sample, 89.1%, were black. This was lower than observed in a study by Mkhatshwa, Rammopo and Chelule (2017: 32), where 95% of respondents were blacks, with whites constituting less than 1%.

The majority of the sample, 98%, were aged between 20 and 29 years and the least represented group were 30–36-year-old at 2%. According to Harling (2016: 134), the degree of alcohol consumption was found to be much higher among university students with more problems of abuse being reported in the 16–24-year age group.

Of this sample, 31.2% were males and 68.5% were females. This is in line with a study by Mkhatshwa, Rammopo and Chelule (2017: 32) where most of the respondents were females, 64%. In the current study about 93.1% of respondents were single and 65.3% of the respondents were Christians. Similarly, Mkhatshwa, Rammopo and Chelule (2017: 32) indicated that of the sampled university students, 97% of them were Christians.

5.2.1 Ethnic group

In this current study, black students were the majority (89.1%) of the sample. This race dissemination mirrors the diversity of KwaZulu-Natal province with the largest population in South Africa of about 1,26 million people, 87% of whom are black (Statistics South Africa 2019: 5). Similar results were found by Tesfai (2016: 41) and Mkhatshwa, Rammopo and Chelule (2017: 32), where the majority of university students were black. During apartheid the majority of students at higher education institutions in South Africa were white and in 1980 constituted 74% of students, compared to the 12% black students. Vellios and van Walbeek, (2018: 107) reported that black students are the majority in universities in post-apartheid era because the South African government is providing access for the previously disadvantaged and poor communities into higher education through NSFAS.

5.2.2 Age

The majority, 98%, of the respondents in this study were within the age group of 20-29 years. This was in line with Eze and Uzoeghe (2015: 284) who indicated that most of the students, 93.8% were between the ages of 18 and 29 years. This age reflects the majority of young people who are studying at universities (Eze and Uzoeghe 2015: 285). This is the time of life when young people are very active, enthusiastic and on the quest for new practices, which includes experimenting with some dangerous conditions and situations in search of their identity. Mkhatshwa, Rammopo and Chelule (2017: 24) had a similar sample size but only 39.8% belonged to the age group 20-24 and 32% in the age group 25-29 years. For this current study, the mature age students were 2% of respondents and were between 30-36 years. Education is now more accessible to mature people and to adults.

5.2.3 Gender

In this study, it was discovered that male university students were 31.2%, almost half of the number of their female counterparts 68.5%. The demographics of the KwaZulu-Natal province (Statistics South Africa 2016: 24) also show that there is a majority of female residents in this province, with 92 males per 100 females. In the University of

KwaZulu-Natal (UKZN) Tesfai (2016:62) and Mkhatshwa, Rammopo and Chelule (2017: 25) found similar results where respondents were predominantly female. This was also seen internationally by Htet *et al.* (2020: 5), whose study disclosed that there were more females than males in the six universities they studied. Students in higher education institutions are highly subjective by what they consider their peers are doing or thinking and then toe the line to what they consider is the norm.

5.2.4 Marital status

This current study found a significant number of respondents 93.1% were single. Comparable results were found by Cebekhulu (2020:45) where the majority of the respondents in her study that was done in a UoT in Kwa-Zulu Natal were single and she regarded this as being a common occurrence among students who are pursuing a career before settling down. Eze and Uzoeghe (2015: 284) found slightly higher results of single university respondents 98.8%. Contrary to these results, Pourmohammadi and Jalilvand (2019: 525) in their study with students in higher education institutions in the Northeastern cities of Iran found that 69.88% were single and 28.36% were married. Statistics South Africa (2016: 1) shows the median age for single men remains at 36 years whilst the median age of single women increased by a year from 31 years to 32 years. Today's youth do not get married and settle down early in life. This is mainly because women are now more independent; they either pursue their studies or have steady jobs. Instead, today's students opt for cohabitation as a 'marriage test' whereby young couples first live together and share property and assets before making a legally binding commitment to do so (De Wet and Gumbo 2016: 2654). There was no significant relationship between alcohol use and marital status.

5.2.5 Religious practice

A high proportion of respondents 65% indicated that they were Christians, and this displayed that religious profile of the broader undergraduate population were Christians. Mkhatshwa, Rammopo and Chelule (2017: 24) and Eze and Uzoeghe (2015:284) yielded similar results in their studies where Christianity was the common religion among university students. Ramsoomar (2015: 33) confirmed that alcohol has

emblematic implication in religious services like drinking of wine as part of Holy Communion in many Christian services. This result may be attributed to the complex diversity of Christianity groups in South Africa. Kwabena, Kyei* and Ramagoma (2013: 84) argues that most religious groups prohibit their followers or adherents from drinking alcohol as their members may commit disgraceful acts, such as fighting, swearing, adultery, etc. in public, therefore religious adherents do not drink alcohol as much as those who do not practice religion.

Extent of alcohol use among university students

This study found that less than half of the sample (34%) of respondents were using alcohol. Although this is not the majority, it is still of great concern to the researcher as alcohol use has a negative impact on university students as young people who are at the beginning of their career. Ndegwa, Munene, and Oladipo, (2016: 104), found that more than half of the respondents in a Kenyan University were using alcohol, and Mkhatshwa, Rammopo and Chelule (2017: 32) found that the majority of respondents 88.3% reported consuming alcohol in a study in the Mpumalanga College of Nursing.

The current study found that of the respondents who consumed alcohol, 85% were black. This is a high proportion of students and is of much concern for this study. This is in line with the findings by Mkhatshwa, Rammopo and Chelule (2017: 26) in Mpumalanga Nursing College and Tesfai (2016: 41) in UKZN where the majority of black university students used alcohol. This was not surprising as this study was conducted in KwaZulu-Natal where the black population is dominant (Statistics SA 2016: 24).

The current study found that respondents in the age bracket of 20-29 years old were 98% of the group that used alcohol. This is an alarmingly high proportion and much higher than found by Mkhatshwa, Rammopo and Chelule (2017: 32) where 72% of respondents who drank alcohol were in the same age group. The SNT approach is based on the assumption that actions are often based on misinformation about or misperceptions of the attitudes and/or behaviours of the other students.

In this study, both male and female respondents who used alcohol were approximately 34%. Eze and Uzoeghe (2015: 284) found that male university students used alcohol more than female students. However, Mkhatshwa, Rammopo and Chelule (2017: 28) found no significant association between alcohol use and gender; she found that 66% male and 64% female students drank almost the same. Even though the current study yielded a smaller number of female respondents than other studies, it is disturbing to note such a big number of female students who drink alcohol. Interpreting this according to SNT one can say that this is a result of passive acceptance of drinking misperceptions among female students with little effort to change them, hence the rise in the number of female students that drink alcohol.

Christian respondents were the highest group (65%) that used alcohol in the current study. Similar results were found by Mkhatshwa, Rammopo and Chelule (2017: 26) and Eze and Uzoeghe (2015:284). However, Vellios and Walbeek (2018: 34) found that within the other religious groups, other than Christianity, evidence indicated that a high proportion of respondents with other religious backgrounds used alcohol and further stated that drinking was progressive among students who declared no religious affiliation than those who declared religious affiliation. Religion has norms and values that shape a person's behaviour and how to carry oneself in the society, but the youth have disregarded these norms and values and attached themselves to the 'new peer norms' that expose them to live a reckless life. Govender, Nel and Sibuyi (2017: 5) attested that lack of parental support, monitoring and communication with students in university resulted in them discarding their religious or cultural values and engage in adolescent drinking and alcohol related problems.

5.3   Drinking patterns among university students

A pattern of alcohol drinking refers to the number of days or occasions that an individual has consumed alcohol during a specified period for example, a day, week, month or year and/or as a regular or repeated way in which alcohol consumption occurs among students (Lorant *et al.* 2013, cited by Mkhatshwa, Rammopo and Chelule 2017: 34). This section will discuss the drinking patterns of alcohol by university students as the second objective of this study. The findings of the current

study showed that 66% of the students drank less than once a month, 12% of them drank once a week and only 0.9% of students drank 2-4 times a week. It is unfortunate that students drank so heavily, up to 2-4 times a week at their tender age. According to Ferreira-Borges, Parry and Babor (2017: 3) these misperceptions. recognized as a top cause of death and incapacity in sub-Saharan Africa and for disability-adjusted life-years among university students. They usually exaggerate their beliefs around the drinking traditions and alcohol intake of other students. When these are interpreted as real, they strengthen the behaviour that is accepted around these misperceptions.

5.4.1 Regarding the number of drinking against non-drinking students

Although this study observed that 34% of the respondents were using alcohol and 66% were not, is of concern to the researcher because if not addressed, they might develop harmful drinking habits, which may impact their academic performance. There is also a high rick that the students who are not drinking can commence drinking. Contrary to the current results, Mkhatshwa, Rammopo and Chelule (2017: 40) reported that at Mpumalanga College of Nursing, the rate of drinking among college students was recorded at 64% versus 36% who did not drink alcohol. Similar results were seen internationally, in the European Union countries like Ireland, Romania, Germany, Austria, United Kingdom, Spain, Greece and Italy (Martinotti *et al.* 2014: 1890). Alarmingly, Zadarko-Domaradzka *et al. (*2018: 7) found much higher results where over 80% of the college students in the Carpathian Euro region consumed alcohol. This was similar to a local study at the University of the Witwatersrand by Nyandu (2017: 32) who found that the majority, 88.3% of respondents agreed that they consumed alcohol. The results of this current study are much lower when compared to both the results from international and local studies. If university students perceived that their peers want them to drink more for them to belong to the group, they therefore exaggerate their drinking behaviour.

5.4.2 Regarding when they started drinking alcohol

Almost half of the respondents that consumed alcohol, 46%, started drinking in high school. Surprisingly, about 8% of respondents started drinking alcohol in primary

school between 10-15 years old. Tesfai (2016: 10) concurred that the use of alcohol among students at UKZN started between higher primary and secondary schools and further stated that 24.3% of secondary school learners drink alcohol while a very high proportion 74% of them start very early in life. This was also supported by Eze and Uzoeghe (2015: 285). This is true for KwaZulu-Natal where there is a high rate of informal settlements, and this is where most university students come from. There are too many unlawful liquor retailers in informal settlements, and this promotes rate of alcohol use among youth of South Africa. Lawana and Booysen (2018: 1) argued that living in informal settlements often carries substantial social glitches, for instance, increased problems of alcohol dependence.

Nyandu (2017: 37) indicated that among those respondents who consumed alcohol, many of them started drinking alcohol between the ages of 11 and 15 years, followed by ages 16 to 19 years. This was a very early age of onset of alcohol use. Mkhatshwa, Rammopo and Chelule (2017: 33) further confirmed that in Mpumalanga province the age of onset of alcohol use ranged between 13 and 18 years old. It was noted with great concern that globally students start drinking alcohol very early in life. The SNT is based on the assumption that actions are often based on misinformation about or misperceptions of the attitudes and/or behaviours of the others and when these are interpreted as real, they reinforce the behaviour that is adopted around these misperceptions.

5.4.3 Regarding the age alcohol became their lifestyle

Almost half of the respondents, 49%, reported that alcohol became their lifestyle between ages 19-24 years. The majority of respondents in this age brackets are blacks since they formed the bulk of the sample. This age range falls within the WHO (2014) definition of young people, which refers to individuals between the ages of 10 and 24 years. These results showed that this age group leads a hazardous lifestyle like drinking alcohol from an early and tender age. Contrary to this, Mkhatshwa, Rammopo and Chelule (2017: 33) confirmed in her study that alcohol became student's lifestyle between age group of 15-19 years, and this was a much younger age than was found in this study. Yet, Tesfai (2016: 44) when compared to this study, found high results that liquor was the utmost used stuff used and 68% of UKZN students stated a lifetime

liquor usage. The reasons for the difference might be that other studies were conducted in different socio-economic settings like urban or peri-urban communities hence the age gap in lifestyle of respondents.

5.4.4 Regarding the frequency of drinking

Very few respondents, 0.9%, drank 2-4 times a week while no respondents reported that they drank daily. Moderate drinking is defined as one drink per day for women and up to two drinks per day for men (Dietary Guidelines for Americans 2015–2020 2015). Current findings are significant for this study because of the students' frequency of drinking. On the contrary, Nyandu (2017: 39) found that 2% of university students consumed alcohol daily, and Mkhatshwa, Rammopo and Chelule (2017: 31) found very high results compared to this study, that 12% of them drank daily. In a study conducted in University of Delaware, alcohol was the most used substance, with 78% of university students reporting drinking alcohol monthly (Decamp *et al.* 2015: 4).

Differences in the frequency of drinking reported by dissimilar studies could be attributed to changes in methodologies and study populations. Another possible reason for these results is that students drink alcohol mostly at distinct events and on weekends because they do not have time available to drink alcohol frequently while trying to concentrate on academics and university social activities. SNT holds that the apparent expectations of peer groups support or condemn a specific behaviour

5.4.5 Regarding the number of standard drinks (330mls) on a typical day

In the United States, standard drink means a beverage with 14 grams (0.6 fluid ounces) of uncontaminated alcohol. It is found in 12 ounces of regular beer, which is usually about 5% alcohol, 5 ounces of wine, which contains about 12% alcohol and 1.5 ounces of distilled spirits, which is about 40% alcohol, (National Institute on Alcohol Abuse and Alcoholism 2017). This current study discovered that 24% of respondents take 7 to 8 drinks and 5% take nine or more drinks on a typical drinking day. Life-threatening binge drinking, also known as high-intensity drinking, refers to drinking at levels far more than the binge threshold, resulting in high blood alcohol concentrations. Though explanations differ, some studies define extreme binge drinking as 2 or more

times the gender-specific binge drinking thresholds that is, 10 or more average drinks for men, and 8 or more for women (Patrick *et al.* 2016: 112). According to the above definition, these respondents were classified as binge drinkers.

Findings from this study were lower than previous studies. Nyandu (2017: 41) indicated that a high rate of 45% of respondents usually consumed 2-4 drinks in one sitting, which is a lower number of standard drinks compared to this study. According to the patterns of alcohol consumption identified by the WHO (2014), drinking 2-4 standard drinks per sitting is considered moderate/safe drinking. Furthermore, Mkhatshwa, Rammopo and Chelule (2017: 28) found that 12% of university students drank daily, followed by 50% who drank once a week (beer and wine). The outcome of the current study showed a strong need for alcohol prevention interventions among university students. Youth should be given information about safe drinking levels. SNT posits that people are highly influenced by what they think their peers are doing or thinking and then conform to what they believe is the norm. This perception can cause people to overestimate problem behaviours and underestimate healthy behaviours.

5.4.6 Regarding with whom they drink

Significantly, 48% of drinking students in this study indicated that they drank with peers whilst a minimum, 23% of students drank with their girl/boyfriends. Drinking with peers carries a high risk and can promote students to initiate, maintain or increase their alcohol use whilst drinking with boy or girlfriend poses less risk. These findings were much lower than the trends of previous research studies, (Ndengwa, Munene, and Oladipo.2016: 110) and Nyandu (2017: 42). Conversely, Lategan, du Preez and Pentz (2017: 101) in the University of Stellenbosch found that 89% of the respondents used alcohol mostly with their peers, which was higher than results from this study. Nekgotha (2019: 2) stated that there was no parental or custodian control for most students when they entered further education colleges, which encouraged them to participate in drinking events. As a result, some university students do not manage the situation personally, socially and/or academically. Ndengwa, Munene, and Oladipo, (2016: 101) and Mekonen *et al.* (2017: 3) argued that peer pressure was an important interpreter of alcohol use in university students in which the chances of having challenging alcohol use among students who had alcohol user close friends

multiply. The fact that respondents consumed alcohol mostly with their friends also suggests that friends have the potential to be influential forces in reducing hazardous drinking as well (Nyandu 2017: 43). Nekgotha (2019: 19) indicated that many students in universities consume alcohol over weekends because they are bored. This suggests that occasionally the institutions do not have satisfactory entertaining amenities mainly in peri-urban campuses in South Africa.

The difference in findings might be due to the setting in which the studies were performed, for an example, if a study was done amongst school learners of the different age group, or in universities located in rural or urban settings (Mkhatshwa et al. 2017: 33). Social norms theory is generally based on social learning theory therefore would propose that respondents consume alcohol frequently with their friends owing to the rewards and social belonging they get from consuming alcohol.

5.4.7 Regarding how often they have six or more standard drinks

Alcohol is a legalised substance in South Africa, but it is open to misuse. (Hendricks, 2015: 5). A minimum, 8% of students reported that they drank 6 or more standard drinks once a week. These results have serious implications for respondents involved in this study as they were at risk of developing alcoholism and other alcohol-related problems. As specified by the National Institute on Alcohol Abuse and Alcoholism (2017), for ladies, low-risk drinking is no more than 3 drinks on any particular day and no more than 7 drinks per week. For males, it is defined as no more than 4 drinks on any single day and no more than 14 drinks in seven days.

The results were comparable to a study conducted at another university where it was found that 6.5% of the respondents have 5 to 6 drinks with alcohol on a distinctive day of drinking while 1.4% usually have 7, 8, or 9 drinks in that period. About 2.8% have 10 or more drinks. (Nekgotha 2019: 62).

Nonetheless, Nyandu (2017: 41), Ndengwa, Munene, and Oladipo. (2016: 111) and Ansari et al. (2016: 1184) confirmed that a high proportion of university students, 57% and 54% and 40% were found to have been using alcohol in a harmful way respectively. These university students could have developed acceptance, making them exaggerate their amount of alcohol intake to reach the preferred effect.

Furthermore, some of them may have developed alcohol addiction predisposing them to higher risks of alcohol-related difficulties. The social learning theory can also be applied to suggest that drinking behaviour among friends is demonstrated. In any group of friends, some people are likely to receive more consideration than others due to perceived attractive appearances.

5.4.8 Regarding how often they attempted to stop drinking in the previous year

This study indicated that about 18% of respondents attempted to stop drinking once a month and 0.9% respondents attempted to stop drinking once a week. It is comforting to learn that these students are aware that alcohol use is a challenge to them. This will promote acceptance of help interventions on their side. Eze and Uzoeghe (2015: 286) in University of Abuja found that most of the students had difficulties stopping their drinking habit. Tulu and Keskis (2015: 54) agreed that most students found it too demanding to discontinue using alcohol when they have begun. Therefore, this finding suggests that it will be hard for those drinking to leave, therefore the drinking pattern for most respondents is possible to develop enduring risky drinking. Chronic unsafe drinking would end in alcoholism over time. The plan to stop drinking is a giant step to assumption of healthy habit. Peer group pressure plays a role to socialization of university undergraduates thus introducing alcohol as an acceptable 'new norm' of tertiary educational institutions.

5.4.9 Regarding how often they have failed to do what was normally expected of them because of drinking

About 15% respondents concurred to have failed less than a monthly to carry out their normal due to drinking. A small proportion of respondents 8% and 0.14% reported to have failed monthly and weekly respectively. The results from the current study are much lower than those observed by Ndengwa, Munene, and Oladipo. (2016:104) who indicated that 58% of respondents struggled to do schoolwork, house chores, and keeping company with other people. These authors further suggested that the respondents demonstrated low oomph in doing day-to-day activities, which might be because of alcohol intake. Students with possible alcohol abuse and dependency are a concern to educators and institutions of higher learning. Tulu and Keskis (2015: 54)

concurred that university students who frequently used alcohol had low contribution in the classroom when tasks and group work, were absenting themselves during examinations and had poor concentration during study periods. In addition, student's progress was dropping, even for those who were once excellent (Tulu and Keskis 2015: 54). If university students see their peers indulging themselves in alcohol, there is a strong possibility that they will also use alcohol to seem more outgoing as well. Relationship suggests that alcohol consumption is an essential part of quality bonds.

5.4.10 Regarding how often they needed a morning drink to get themselves going after a heavy drinking session

Only 0.6 % of respondents stated that they needed a morning drink monthly whereas 0.14% respondents had a similar experience weekly. The Substance Abuse and Mental Health Services Administration (2017) in the United States, which conducts the annual National Survey on Drug Use and Health, states that binge drinking as 4 or extra alcohol beverages for a woman or 5 or more drinks for a man on the similar occurrence at least 1 day in the past 30 days. Harmful drinking has been observed among youth globally. Mkhatshwa, Rammopo and Chelule (2017: 34) found that a higher proportion (compared to the current study), 12%, of participants reported that they were drinking every day while 36% reported to be drinking weekly. This was also seen in a study by Tesfai (2016: 64) conducted at UKZN which suggested that 17.5 % of participants engaged in hazardous drinking, which was higher than the current study Impulsive use of alcohol among youth could remain credited to its extensive availability. Students' peer standards have a healthy effect on students' personal drinking behaviour therefore, universities and other tertiary institutions can utilize peer method as hindrance and control measures of drinking among students.

5.4   Relationship between alcohol use and academic performance

Negative association between alcohol use and academic performance has been observed. Heavy drinking has been perceived as a contributing factor to students dropping out of institutions of higher learning. Eze and Uzoeghe (2015: 283) state that university students are vital to every state and their wellbeing are essential to

national development, since excessive and uncontrollable alcohol use greatly threatens to their academic progress and future. It is evident that there exists a relationship between alcohol use and students' academic performance. Students who abuse alcohol experience declining grades, high absenteeism rate from class and other academic activities.

5.5.1 Regarding dropping behind academically compared to other members of initial student group

Respondents were asked to state whether they had dropped behind academically compared to other members of their initial student group. It is concerning that about 19% stated that they had indeed dropped behind academically. Conversely, Ansari, Stock and Mills (2013: 1180) stated that 62% of drinking respondents regarded their performance as similar as that of fellow students, and further stated that the average module mark achieved was 55%. Additionally, Ansari, Stock and Mills (2013: 1182) found relatively strong links between heavy drinking, the importance of good marks and the subjective academic performance relative to peers. The more habitually students drink alcohol, the less they rated the importance of good grades. This further lead to them rating their personal educational progress lower in relation to their friends. Mekonen *et al.* (2017: 3) supported that alcohol use had significant influence on decision-making of an individual and is accompanied with less motivation to engage in any activities. These authors further agreed that extraordinary achievement in students' academic success is related with low threat of problematic alcohol use.

5.5.2 Regarding missing a class because of drinking the previous day

A fairly large group of 26% of respondents agreed that they had missed a class because of drinking. This is in line with what was indicated by Htet et al. (2020: 8) in a study across six universities in Myanmar which showed that students who had missed classes confirmed a more-than-two-fold rise in alcohol consumption. This tendency was consistent with research results that truant students are more likely to report alcohol consumption and alcohol-related difficulties than non-truant students (Goldberg-Looney *et al.* 2016: 2; Holtes *et al.* 2015: 267). Mkhatshwa, Rammopo and

Chelule (2017: 39) yielded higher results than the current study where 30.6% of respondents were binge drinkers and their school performance was negatively affected by alcohol consumption and 41% missed classes due to drinking while 33% of respondents said that their studying was interrupted by others who consumed alcohol. Mkhatshwa, Rammopo and Chelule (2017: 39) further concurred that alcohol consumption leads to a decrease in class attendance, lowers achievement on projects and tests as well as causing inability to concentrate on class material.

Conversely, Nyandu (2017:46) found that 85% of the university students testified not having neglected a lecture or assignment submission date due to the consumption of alcohol in the last 12 months, which challenges the literature reviewed. It is a fact that heavy alcohol drinking and alcohol addiction are related to poorer grade points averages, increased likelihood of missing classes, and increased likelihood of having hangovers. Regarding attending a class after having been drinking a short while before the author's findings make sense bearing in mind that 87% of respondents drank one drink per sitting plus or 2-4 drinks per sitting which is safe drinking.

The majority of respondents 84% indicated that they had never attended a class after having been drinking a short while before, but 16% of respondents concurred that they had. Respondents that have never attended a class after having been drinking a short while before might be a group of students who drink safely. Even though this is a small number of respondents, 16% of the sample who consumed alcohol is significantly high for this study. Alcohol use among university students has significant consequences for the wellbeing of the general residents since today's university students are a future generation to own the country (Tulu and Keskis 2015:48). Social control theory can be applied to understand the finding by categorising 84% of students as safe drinkers. They adopted accountable attitude to consuming alcohol because they either wanted to impress their significant others or were preoccupied with productive activities such as being present classes and submitting assignments.

5.5.3 Regarding being reprimanded or disciplined for drinking

A small proportion of respondents (9.4%) acknowledged having been disciplined for drinking. Significantly, 90.6% had never been disciplined for drinking. This is a serious

problem and needs further investigation as to why such a large number of students were not reprimanded. This can be attributed to their ability to be in control of the situation and or possibility that they drank alcohol safely during weekends only Nekgotha (2019: 19) discovered that harmful drinking habits were not approved by institutions of higher education but were often connected with communal functions on campuses. In this regard, Mogotsi et al. (2014), cited in Nekgotha (2019: 19) reported that drinking behaviours, even extreme ones, are seen as normative on campuses.

5.5. 4 Regarding academic challenges experienced from drinking alcohol

About 88% of respondents stated never to have experienced difficulties related to drinking alcohol since they started studying in the UoT, while a few respondents (8%) agreed that they were experiencing academic challenges from drinking alcohol, and they were not able to learn. Similarly, 2.5% could not go to class at all on occasion because of a hangover and about 1.5% failed to cope. Likewise, Kassa, Wakgari and Taddesse (2016: 826) found that a minimum proportion of 9.2% of respondents were involved in trouble with university police. Nyandu (2017: 46) discovered nearly double the percentage of respondents (14.8%) who missed a class or assignment submission date due to the consumption of alcohol, and the author further stated that students who were binge drinkers had a higher likelihood of experiencing a wide range of problems associated with the use of alcohol, such as poor academic performance. Nyandu (2017:17) and Tulu and Keskis (2015: 54) further concurred that university students face many educational related problems such as absenteeism, poor contribution in the class and failure to attend exams. According to the Barbor *et al. (*2011) cited by Nyandu (2017: 8), safe drinking is defined as a drinking design that does not lead to the escalation of risk or demonstration of detrimental consequences to the drinker or significant others. In this case, harmful outcomes would be missing a class or assignment submission date due to the consumption of alcohol.

5.5.5 Regarding being counselled about academic performance
The majority of respondents (83%) indicated that they had never been counselled about their academic performance. This might be a group of students who had control

over their drinking habit. However, a minimum of 16% respondents acknowledged that they underwent some counselling in relation to their academic performance. This is in line with the study results by Mogotsi *et al.* (2014: 191) which revealed over 90% 90% of the sampled students had never had trouble with the law or university administration rules due to poor behaviour in relation to consumption of alcohol. Muswede and Roelofse (2018: 8) noted that denial and a lack of coping strategies; an inappropriate personal conduct and an unresponsive behaviour; a poor academic progress and an incriminated personal profile were the major potential obstacles that could hinder students' career prospects.

5.5   Alcohol use and academic performance

This section discusses how the respondents related the use of alcohol to their academic performance with regard to six components namely, whether academic goals set at the start of tertiary education were achieved, satisfaction with performance of assessments, whether there was progress in academic programme, satisfaction with class performance, time spent on academic activities and whether they fell behind with studies due to alcohol use. According to LaMorte (2019: 1), social norms interventions aim to correct misunderstanding of norms. In particular, numerous social norms interventions are social norms media campaigns where inaccuracies are addressed through community-wide electronic and print media that encourage accurate and good norms about health behavior (LaMorte 2019: 1).

5.6.1 Alcohol use and achieving set academic goals

The majority of drinking respondents (50%) indicated being satisfied with the achievement of academic goals set at the start of their tertiary education. However, 44% of the respondents who were not satisfied with achievement of their goals due to consumption of alcohol could possibly be students who have lost control of their drinking habit. If these students are not referred for assistance with their drinking habit, they might develop alcohol related academic problems. According to Nyandu (2017: 47), students who engage in binge drinking are likely to perform poorly than others. This concurred with results by Pourmohammadi and Jalilvand (2019: 526) who found

that 31% of university students who were heavy drinkers had very little satisfaction with their academic performance. Similarly, Mekonen *et al.* (2017: 3) stated that students' success academically links with low possibility of harmful alcohol use. This has an important influence on the decision-making of an individual and is accompanied with having less drive for doing academic activities. Students who abuse alcohol are less likely to do their homework, attend class and achieve high grades. Students who abuse alcohol are less likely to complete their homework, attend class and value and achieve high grades. This is because they spend less time on academic activities needed in order to perform well academically. Mkhatshwa, Rammopo and Chelule (2017: 39) confirmed that alcohol intake leads to a decrease in class attendance, lowers achievement on projects and tests as well as causing inability to concentrate on class material.

5.6.2 Satisfaction with assessment results

The majority (46%) of drinking respondents stated that they were satisfied with their assessment results. This is a group of students who have control over their drinking habits and drink safely. These results are acceptable considering that 30% of respondents indicated that they usually consumed 3-4 drinks per sitting plus 65% of those who reported drinking monthly. However, 45% of respondents agreed that they were not satisfied with their tests and examination results. This group of students' academic performance is at risk of being negatively impacted by alcohol use. This confirms that indeed alcohol use among university students is usually associated with poor progress academically. Alcohol use amongst students is usually associated with poor academic performance. The time for academic activities in these students is replaced by consuming alcohol and partying especially on weekends, inevitably leading to underperformance during tests and examinations. Similarly, Ansari, Stock and Mills (2013: 1184) found that 54% of drinking respondents were also not happy with their academic performance. The authors added that episodic drinking by these students inevitably led to negative consequences on academic performance. These findings correspond with those of Pourmohammadi and Jalilvand (2019: 530) who confirmed that among Iranian students there was a significant relationship between students' satisfaction with their academic performance and alcohol consumption. The difference in results might be due to the cultural and socioeconomic status of students

and the possible explanation for it might be environmental conditions like the accessibility of alcohol.

5.6.3 Alcohol use and academic progress

The majority of respondents (51%) stated that they were making steady academic progress. Similarly, Nyandu (2017: 47) yielded similar results that the majority of respondents had never performed poorly due to drinking in the previous twelve months. However, a high proportion of 41% respondents in the current study disagreed that they were making academic progress indicating that a small proportion of respondents are academically challenged because of drinking. This study added to the literature that alcohol use is indeed a massive concern among university students.

Furthermore, 38% of respondents agreed that academically they were progressing poorly. Tulu and Keskis (2015: 55) confirmed that alcohol use results in negative academic consequences such as failing to meet goals for assignments, lack of time to make necessary groundwork for exams and even dismissal from campus because of poor progress.

5.6.4 Alcohol use and class performance

The majority of respondents disagreed that alcohol use was causing them to perform poorly in class. Contrary to the current study, Ansari *et al.* (2013: 1184) reported that 54% of their sample were performing poorly in class due to drinking alcohol. This is consistent with findings by Ndengwa, Munene, and Oladipo. (2016: 116) and Mekonen (2017: 9) who added that students who take part in binge drinking have a higher likelihood of suffering slow progress.

5.6.5 Alcohol use and academic priorities

The majority of respondents (47%) agreed that alcohol use caused them to spend less time on academic activities and academic priorities. Onyebuchukwu *et al.* (2015: 149) concurred that instead of students engaging more in academic activities such as studying, they utilize more time drinking alcohol. A contributory factor is that some

universities are located near drinking areas and therefore have more students drink alcohol than those located away from such drinking areas. Steward (2013, cited by Mkhatshwa, Rammopo and Chelule 2017: 19) emphasized this and concurred that in California, a large number of drinking establishments are located near colleges or university campuses, and there was more underage heavy drinking with related problems occurring. The authors further attested that alcohol promotions were found to be dominant in the alcohol inns around college campuses. Nearly three quarters of alcohol bars offer specials on weekends, and more than 60% of liquor stores provide at least one type of beer promotion (Steward 2013, cited by Mkhatshwa, Rammopo and Chelule 2017: 18).

While communal drinking is a rampant and standardized measure of youth culture, it is important for undergraduate students to be aware of the stages of alcoholism and symptoms indicative of a change from moderate social drinking to dependency on alcohol. The role of alcohol in enhancing social connectedness is especially significant where recent loss of existing social and family relationships has occurred and the need to feel embedded in new university contexts is paramount (Brown and Murphy 2018: 225). The escalating of alcohol use in Africa is enhanced by its availability, heterogeneity of its production, growth in unrestricted liquor outlets and lack of constraints on alcohol advertisements, which points to the absence of effective alcohol control policies (Lasebikan and Gureje 2015: 37, Lasebikan and Ola 2016: 78). These researchers further stated that prior experience of alcohol as a social lubricant within peer relationships likely contributed to reported expectations of alcohol as supportive in bonding at university. Brown and Murphy (2018:.220) and Myer (2015:210) stated that peer alcohol use is the strongest negotiator studied to date in literature that reliably facilitates quantity and frequency of personal alcohol use.

5.6   Chapter summary

The results of the study were discussed in detail in chapter. Literature which supported and opposed the findings of the study was integrated into the discussion. Alcohol use and its effects on the academic performance and behavior of the students were observed with concern. Conclusion, recommendations, and limitations of this study will be discussed in the next chapter.

CHAPTER 6: SUMMARY OF FINDINGS, RECOMMENDATIONS AND LIMITATIONS

6.1   Introduction

This chapter will summarise the findings and make recommendations to the institution, students and stakeholders. Limitations to the study will also be discussed and lastly, suggestions for further research.

6.2   Summary of results

The sample size for this study was 350 respondents but 349 of them returned completed valid questionnaires. Research was conducted in variables such as the demographics of the respondents, extent of their alcohol use, their drinking patterns and relationship of alcohol use to students' academic performance as per the objectives of the study. This study observed that 89.1% respondents were blacks, and this is a true picture of ethnic proportions on the campus where data were collected. Blacks form the majority of students on the campus. Respondents were between the age group of 20-36 years with 98% of them being in the age bracket of 20-29 years. Like in many studies, there were more females than males, while 93.1% of respondents were single.

The findings of this study showed that of 34% drinking respondents, 8.5% of them started drinking in primary school. However, 49.5% respondents reported that alcohol became their lifestyle between 24-29 years of age. This is a big challenge that university students start drinking alcohol at an early age, contributing to poor academic performance then later dropouts.

Even though 10.3% of respondents indicated that they drink one or two standard drinks containing alcohol on one occasion, nevertheless 5.1% of them concurred that they drink 9 or more standard drinks. The majority (47.9%) of students acknowledged drinking with peers and the majority (66%) of them drank less than once a month. The current study found that there is an adverse association between alcohol use and academic performance as 19% of respondents stated that they had indeed dropped

behind academically and 26% of students reported that they had missed a class because they were drinking the previous day. Equally, 15% of them attended a class after they had been drinking a short while before, and 9.4% of respondents acknowledged that they had been reprimanded for drinking alcohol.

Some respondents indicated that they experienced challenges academically due to drinking alcohol and sadly, only 3.6% of respondents reported to have overcome the challenges caused by drinking alcohol. Even though the majority (80.3%) of respondents stated that they have not dropped behind academically compared to other members of their initial student group, 18.8% of them had. About 29.3% stated that they had 6 or more standard drinks (measuring about 330mls) on one occasion meanwhile 16.2% and 0.9% of respondents drank monthly and weekly, respectively. At the same time, 8.5% and 1.7% of respondents indicated that have failed to do what was normally expected of them because of drinking monthly and weekly, respectively. A few respondents (6.8%) reported to have needed a drink to boost themselves after a heavy drinking session, about once a month. This indicates that there are students who are at risk of soon developing alcoholism and needed urgent intervention.

When investigating the relationship of alcohol use to respondents' academic performance, it was found that the majority (44.1%) of students disagreed that they have achieved the academic goals they set at the start of their tertiary education. About (52%) of students agreed that they were making steady progress in their academic programme, although 37.8% of them agreed that they were performing poorly in class. This is concerning because even though these students acquired a rare opportunity of learning at a higher institution, they might fail to obtain their degrees at the specified time and end up being expelled from the university.

6.3   Limitations of the study

The current study was conducted in one campus of a single university results may not therefore not be generalised to other universities. The study was conducted using descriptive quantitative design and a structured questionnaire with close ended questions. A qualitative approach might have yielded a more in-depth insight into the

causality and perspectives of students regarding alcohol use and suggestions of preventive interventions. This study was limited by Covid 19 related challenges. Recruitment of respondents was conducted online. This took the researcher a longer period than when it is done face to face as students took time to respond back. Further delays happened during data collection. This was because students had data and connectivity challenges and it took them more time to submit completed questionnaires.

In the current status of South Africa, drug abuse is escalating, and further research can add to the literature as a combination of alcohol use and the other drugs have detrimental effects on the youth in general and ultimately the future of the country. The statistical results from the survey did not convey to us the background and meaning behind a response since respondents were not afforded the opportunity to rationalize their responses to explain their feelings. Given the impending anxiety that is related with disclosing patterns of alcohol use, respondents may have felt forced to respond in ways they considered to be more acceptable and socially desirable. Hence, there is a possibility that some respondents who use alcohol may have minimised certain features regarding their patterns of alcohol use when answering to the questionnaire. The quantitative results from the questionnaire did not convey their feelings back to us, the background and meaning behind a response since respondents were not afforded the opportunity to rationalize their responses to explain their feelings. Given the impending anxiety that is related to disclosing patterns of alcohol use, respondents may have felt forced to respond in ways they considered to be more acceptable and socially desirable. Hence, there is a possibility that some respondents who use alcohol may have minimized certain features regarding their patterns of alcohol use when completing the questionnaire.

6.4 Recommendations

The findings of this study will add to the literature that use of alcohol by undergraduate students is increasing and continues to affect their personal and academic life at tertiary institutions. The SNT states the following assumptions:

- SNT refers to situations in which individuals falsely see the attitudes and/or actions of peers and other community members to be different from their own when in fact they are not (Berkowitz 2012 as cited by Rogers, Rumley and Lovatt 2018: 508). These misperceptions had hindered respondents from verbalizing concern about their own behaviors that are worrisome and incorrect.

- SNT holds that it is the perceived expectations of peer groups who approve or disapprove of a particular action (Berkowitz 2012 as cited by Rogers, Rumley and Lovatt 2018: 508). For this current study, in reasoned actioned behaviour students might then increase the number of drinks and drink more in order to live up to these normative misperceptions.

- Some students' behaviour is shaped by their social background, religious beliefs and parental involvement, as they get to secondary schools, peers shape their behaviour and this continues into their university life where they want to please peers. Changing behaviour warrants reshaping behaviours of these students, instilling new values and relearning new behaviours (Pengpid, Peltzer and van Der Heever 2013: 247).

This study is making the following recommendations.

6.4.1 Recommendations for faculty/ tertiary institutions

- Various university structures such as student affairs, wellness officials to implement campaigns for alcohol alertness throughout all levels of study, specifically during orientation week for first years, a period where students are first acquainted into a new culture and society. Inviting positive role models rather than usual trend of inviting celebrities who negatively influence behaviour.

- Conducting stress management and coping skills workshops to better prepare students to manage with the tests in university life seeing that educational pressure has been found to increase the probability of alcohol intake among them by student counseling.

- The university has made available sports facilities and other entertainment structures for students that they can utilise during their spare time in order to

allow them to employ their leisure time meritoriously; students need to intensify their engagement in playing different friendly games among themselves and compete against other universities and other companies.

- Review policies by university management regarding selection of students to include strategies for identifying and managing those students already using alcohol when they enter tertiary institutions such as early identification, referral and support.

- Campus-based therapy programs and harm-decreasing approaches that screen university students for alcohol abuse and address students' sensitivities of peer alcohol consumption should be established.

- Awareness campaigns that rely on media and peer education should be developed to facilitate positive behavioral changes among university students by university structures such as the student representative committee.

- Collaboration with community leaders and increasing relationships in cities and town where tertiary institutions are located, with specific aim of increasing community awareness of effects of alcohol use, discouraging easy access to alcohol traders.

- Most students are still within the limit of 35 years which in South Africa is considered the boundary of 'youth'. Their behaviour demonstrates that they still require parental guidance to manage their academic and personal lives. Tertiary institutions must revise the notion that these students are adults as their behaviour is proving otherwise, through more parental involvement. Although most students do receive NSFAS, there is a percentage who are self-funding their studies.

- Alcohol is somehow reaching campus / student residences, this calls for strengthening of security measures, monitoring of student residences and early interventions. This collaboration must involve collaboration with faculty/departments should students demonstrate alcohol use ill-effects off-campus.

- Visible notices regarding the position of tertiary institution on alcohol use must be displayed.

6.4.2 Recommendations for lecturers

Some respondents alluded to the fact that there are no measures taken by lecturers to curtail ill-effects of alcohol use by students. The following interventions are suggested:

- Establishment of ongoing and continuous monitoring of student's progress and support system to assist with personal and professional challenges that poses stress among the students.

- Student-centeredness must be strengthened even during classroom activities. Identify struggling students, passive and those with untoward behaviour.

- Early intervention and referral to Psychologist and other health care professionals for psychological counselling, continuing support and coping programs cannot be overemphasized.

- Paying attention and reflecting on the responses of students during their lecturer evaluations and attending to their needs.

6.4.3 Recommendation for community leaders

- Collaboration with community leaders must be strengthened and geared towards reducing students' entry to alcohol by controlling the establishment of alcohol outlets around university areas and limiting the operating hours of such outlets around the vicinity of the school.

- Alcohol should not be sold to students who are 25 years of age and below.

- Sale of alcohol should be controlled meticulously. Social facilities near the university campuses must be far away for an example, 10 kilometers and owners should be advised to control who they sell alcohol to.

- Rules and interventions proposed in assisting the youth of South Africa to deal with alcohol consumption should be made easily accessible to students by the municipality and local government.

6.4.4 Recommendations for students

It is clear from the findings that students succumb to peer pressure and choose wrong role-models. These compromise their personal and academic life.

- Students should be involved in awareness and counselling programmes to promote social learning; these should be combined into the college's health care system to meet their requirements.
- There should be interventions to regulate or limit alcohol use among university students such as policies educating them on dangers of alcohol use.
- The existing interventions must be strengthened to attend to these aspects, ongoing awareness campaigns with positive role modelling.
- The awareness campaigns must include on increasing students' self-awareness, self-concept and self-determination. This will ultimately reduce being influenced by peers.

6.4.5 Recommendations for further research

- Further research can be conducted using a qualitative method, this method would allow respondents to express their experiences of alcohol use in depth.
- Research could be conducted to cover areas such as effects of alcohol use on students' physical, social and economic wellbeing as well as significant others.
- A study can be conducted including more campuses to cover a wider pool of respondents.
- In addition, research can be conducted on the use of other substances such as drugs among university students, which may affect their academic performance besides alcohol.

6.5 Conclusion

The hope and pride of any country and family is its youth. The country hopes to produce future leaders who will be political leaders and custodians of the constitution and survival of a country locally and globally. The families, especially in the South African context, have expectations that they will upgrade from poverty to middle and

upper-level status when these students qualify and get an income as employees and entrepreneurs.

Findings of the present study and together with other literature, the rate of drinking in tertiary institutions is increasing. There was only a difference of 30 % between drinking and non-drinking students, and this is of great concern. Not only are the students drinking alcohol according to the findings, but also the drinking patterns are frightening and include daily intake of alcohol, and academic time sacrificed for drinking and parties. It was also of concern that the female student involvement in alcohol use is increasing, putting themselves at risk of other life risks including unplanned pregnancies, rape and STIs.

The current study contributes to continuous knowledge production in patterns of alcohol use amongst college students, extent as well as its relationship to academic performance. The norms used for this study proved to be appropriate framework in augmenting appreciating of patterns of alcohol use among students. By using SNT, it is hoped that behaviour change will take place according to recommendations stated by the researcher.

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Appendix 1a: Full IREC Ethics Clearance

15 March 2022

Mrs F B Ntombela
1326 Mthombothi Road
Imbali
3219

Dear Mrs Ntombela

Alcohol use amongst students in a University of Technology in Kwa-Zulu Natal, South Africa
Ethical Clearance number IREC 246/21

The Institutional Research Ethics Committee acknowledges receipt of your notification regarding the piloting of your data collection tool.

Kindly ensure that participants used for the pilot study are not part of the main study.

In addition, the IREC acknowledges receipt of your gatekeeper permission letters.

Please note that **FULL APPROVAL** is granted to your research proposal. You may proceed with data collection.

Any adverse events [serious or minor] which occur in connection with this study and/or which may alter its ethical consideration must be reported to the IREC according to the IREC SOP's.

Please note that any deviations from the approved proposal require the approval of the IREC as outlined in the IREC SOP's.

Yours Sincerely,

_____

Prof J K Adam
Chairperson: IREC

LETTER TO PARTICIPANTS

Title of the Research Study: Alcohol use amongst students in a University of Technology: A Descriptive Study.

Dear Respondent,

Thank you for agreeing to participate in this study. The purpose of the study is to determine alcohol use among 2nd, 3rd and 4th year students in a University of Technology. Please take time to read through this information sheet that contains all the pertinent information relating to this study. Your input will be greatly appreciated as it will add important information to assist the students and the university to get deeper understanding of this serious problem.

Principal Investigator/s/researcher: Mrs. Florence Buzani Ntombela (B Cur Ed et Admin Nursing).

Co-Investigator/s/supervisor/s: Dr DG. Sokhela (supervisor) & Ms. HT. Mahlanze (co-supervisor)

Brief Introduction and Purpose of the Study; Students come to universities to study in order to become graduates, reduce unemployment and poverty. It happens that due to unforeseen reasons, some students start missing classes, then perform poorly academically, engage in violent behaviour, some get raped and even get expelled. This has therefore become a very serious problem which needs intervention by all involved. As students, I believe you have first-hand information and your input will be beneficial to the study and solutions that may be taken thereafter.

Outline of the Procedures: You are kindly requested to answer all the questions in the questionnaire. Questionnaire should take approximately 15-20 minutes to complete. Please read each question thoroughly before responding. Read each

section to understand what is expected of you. Please insert your completed questionnaire in the designated sealed box.

Risks or discomforts to the participant: There is no expected risk or discomfort when participating in this study.

Benefits: Students might develop a good understanding of alcohol abuse. Measures to address this can be introduced.

Reasons why the participant may be withdrawn from the study: You can withdraw from the study at any time if you wish to do so. There will be no penalty for withdrawal from the study.

Costs of the Study: you are not expected to pay any costs of the study.

Confidentiality: Your name will not be written on the research documents. You will be assigned a code. The consent form with your name will be kept separately from the questionnaires by the researcher. All research documents will be kept under lock and key.

Research-related Injury: There is no anticipated risk injury to the participants.

Persons to Contact in the Event of Any Problems or Queries:

Please contact the researcher: Mrs. Florence Buzani Ntombela, contact number 071 468 6676 or the Institutional Research Ethics administrator on 031 373 2375. Complaints can be reported to the DVC: TIP, Prof C Napier on 031 373 2577 or carinn@dut.ac.za

Appendix 1c: Consent Form

CONSENT

Statement of agreement to participate in the Research Study:

- I hereby confirm that I have been informed by the researcher, Florence Buzani Ntombela (name of the researcher), about the nature, conduct, benefits, and risks of the study.

- I have also received, read and understood the above written information (participant letter of information) regarding the study.

- I am aware that the result of the study, including personal details regarding my age, sex, date of birth, initials and diagnosis will be anonymously processed into a study report.

- In view of the requirements of research, I agree that the data collected during this study can be processed in a computerised system by the researcher.

- I may, at any stage, without prejudice, withdraw my consent and participation in the study.

- I have had sufficient opportunity to ask questions and (of my own free will) declare myself prepared to participate in the study.

- I understand that significant new findings developed during the course of this research which may relate to my participation will be made available to me.

---------------------------------   -------------   ------------   --------------

Full name of participant   **Date**   **Time**   **Signature**

I, Florence Buzani Ntombela herewith confirm that the above participant has been fully informed about the nature, conduct and risks of the above study.

-------------------------------   ---------------   ---------------   --------------

Full name of researcher   **Date**   **Time**   **Signature**

-------------------------------   ---------------   ---------------   --------------

Full name of witness   **Date**   **Time**   **Signature**

Appendix 2a: Request for permission to conduct research study: Post Graduate Studies

<div align="right">

1326 Mthombothi Rd

Imbali

3219

23 November 2021

</div>

Dear Prof C. Napier,

<u>Request for permission to conduct research study</u>

I am registered for Master's Degree in the Department of Nursing at the Durban University of Technology [DUT]. I am requesting permission to conduct a study on alcohol use amongst student in a University of Technology: A Descriptive Study.

The study will be conducted in DUT at Indumiso campus in the Pietermaritzburg area. Questionnaires will be used to collect data from students after permission from the DUT Research Committee and other authority members concerned. There will be no interruption of academic work during the data collection process. For more information refer to the attached proposal. Participation is voluntary and informed consent will be obtained from all respondents willing to participate in the study

Yours Faithfully

Florence Buzani Ntombela

Clinical Facilitator at DUT Nursing Department

E-mail: FlorenceN@dut.ac.za

Supervisor: Dr DG. Sokhela

Contact No: 031-373 2292

Appendix 2b: Permission from Dean of students

Directorate for Research and Postgraduate Support
Durban University of Technology

Tromso Annexe, Steve Biko Campus

P.O. Box 1334, Durban 4000
Tel.: 031-3732576/7

Fax: 031-3732946

21st January 2022
Mrs Florence Buzani Ntombela c/o Department of Nursing Faculty of
Health Sciences
Durban University of Technology Dear Mrs Ntombela

PERMISSION TO CONDUCT RESEARCH AT THE DUT

Your email correspondence in respect of the above refers. I am pleased to inform you that the Institutional Research and Innovation Committee (IRIC) has granted **Gatekeeper Permission** for you to conduct your research "Alcohol use amongst students in a University of Technology in Kwa-Zulu Natal, South Africa" at the Durban University of Technology. **Kindly note that this letter must be issued to the IREC for approval before you commence data collection**.

The DUT may impose any other condition it deems appropriate in the circumstances having regard to nature and extent of access to and use of information requested.

We would be grateful if a summary of your key research findings would be submitted to the IRIC on completion of your studies.

Kindest regards.
Yours sincerely

_____
DR LINDA ZIKHONA LINGANISO
DIRECTOR: RESEARCH AND POSTGRADUATE SUPPORT DIRECTORATE

Appendix 2c: Request for permission to conduct research study: Head of Department- Education

<div align="right">
1326 Mthombothi Rd
Imbali
3219
19 January 2022
</div>

The Head of Department

 Faculty of Education

 Durban university of Technology

Dear Sir/Madam

<u>Request for permission to conduct research study</u>

I am registered for Master's Degree in the Department of Nursing at the Durban University of Technology [DUT]. I am requesting permission to conduct a study on alcohol use amongst student in a University of Technology: A Descriptive Study.

The study will be conducted in DUT at Indumiso campus in the Pietermaritzburg area. Questionnaires will be used to collect data from students after permission from the DUT Research Committee and other authority members concerned. There will be no interruption of academic work during the data collection process. For more information refer to the attached proposal. Participation is voluntary and informed consent will be obtained from all respondents willing to participate in the study

Yours Faithfully

Florence Buzani Ntombela

Clinical Facilitator at DUT Nursing Department

E-mail: FlorenceN@dut.ac.za

Supervisor: Dr DG. Sokhela

Contact No: 031-37302292

Appendix 2d: Permission from HoD Education

School of Education
Faculty of Arts & Design
Durban University of Technology
15 FJ Sithole Road, Imbali

Pietermaritzburg, 3201
P O Box 101112, Scottsville, 3209 South
Africa

Tel: +27 33 845 8926
Fax: +27 33 845 8936
Email: upasnar@dut.ac.za
www.dut.ac.za

01 March 2022

Dear Florence

I hereby grant you permission to collect data from the B Ed students in the School of Education for your study entitled: "**Alcohol use amongst students in a University of Technology in Kwa-Zulu Natal, South Africa**". Please note that this permission is only valid for the year 2022, in line with the extension granted to you by IREC.

Kind Regards

DR NONHLANHLA MTHIYANE
Head of School & Senior Lecturer :Biology

School of Education
Faculty of Arts & Design
Durban University of Technology
P O Box 101112, Scottsville, 3209 South Africa

Tel: +27 33 845 8926
Cell: +27 82 510 5573
Email: cynthiaM@dut.ac.za

www.dut.ac.za

Appendix 2e: Request for permission to conduct research study: Head of Department- Civil Engineering

<div align="right">

1326 Mthombothi Rd
Imbali
3219
22 February 2022

</div>

The Head of Department
 Department of Civil Engineering

Dear Sir/Madam

Request for permission to conduct research study

I am registered for Master's Degree in the Department of Nursing at the Durban University of Technology [DUT]. I am requesting permission to conduct a study on alcohol use amongst student in a University of Technology: A Descriptive Study.

The study will be conducted in DUT at Indumiso campus in the Pietermaritzburg area. Questionnaires will be used to collect data from students after permission from the DUT Research Committee and other authority members concerned. There will be no interruption of academic work during the data collection process. For more information refer to the attached proposal. Participation is voluntary and informed consent will be obtained from all respondents willing to participate in the study.

Yours Faithfully,
Florence Buzani Ntombela
Clinical Facilitator at DUT Nursing Department
E-mail: FlorenceN@dut.ac.za
Supervisor: Dr DG. Sokhela
Contact No: 031-37302292

Appendix 2f: Permission from HoD Civil Engineering

Dear Buzani,

Please see the below.

Regards,

From: Jacob Olumuyiwa Ikotun <JacobI@dut.ac.za>
Sent: 07 March 2022 12:40
To: Dudu Gloria Sokhela <dudus@dut.ac.za>
Subject: RE: Request for permission

Thanks, no problem, the student can collect data from Civil Engineering students.

Jacob

From: Dudu Gloria Sokhela <dudus@dut.ac.za>
Sent: Monday, 07 March 2022 12:31
To: Jacob Olumuyiwa Ikotun <JacobI@dut.ac.za>
Subject: Request for permission

Good day,
I hope this mail finds you well.
May I request your attention to the below. Unfortunately, the student had used a wrong e mail address previously.
That you for your assistance.

Regards,

Good day,

I hope you are well and safe. I am a Clinical Instructor working in Nursing (Undergraduate) Department, based at Indumiso Campus. I am currently doing Master' Degree and request permission to collect data from Civil Engineering students. The title of my research study is: Alcohol use among students in a University of Technology in KwaZulu-Natal, South Africa. The population of my study will be all students of Indumiso faculties namely; Department of Education, Department of Civil Engineering and Surveying as well as the Department of Nursing. The target population of this study will be all second, third and fourth year students registered at this campus. Kindly find attached documents for comprehensive information that you might need.

Thank You in advance for your understanding.

Warm Regards

Florence Buzani Ntombela

Tel: 033 845 9021

Cell: 071 468 6676

Appendix 2g: Request for permission to conduct research study: Head of programme-Nursing

<div align="right">

1326 Mthombothi Rd
Imbali
3219
19 January 2022

</div>

The Head of Programme
 Nursing Department

Dear Sir/Madam

Request for permission to conduct research study

I am registered for Master's Degree in the Department of Nursing at the Durban University of Technology [DUT]. I am requesting permission to conduct a study on alcohol use amongst student in a University of Technology: A Descriptive Study.

The study will be conducted in DUT at Indumiso campus in the Pietermaritzburg area. Questionnaires will be used to collect data from students after permission from the DUT Research Committee and other authority members concerned. There will be no interruption of academic work during the data collection process. For more information refer to the attached proposal. Participation is voluntary and informed consent will be obtained from all respondents willing to participate in the study.

Yours Faithfully,
Florence Buzani Ntombela
Clinical Facilitator at DUT Nursing Department
E-mail: FlorenceN@dut.ac.za
Supervisor: Dr DG. Sokhela
Contact No: 031-37302292

Appendix 2h: Permission for HoD Nursing

Permission to collect data from students in Nursing Department

Dear Ms Ntombela,

Permission is granted for you to collect data in the Nursing Department. Please make sure that you forward a copy of full ethics approval to the Department for our records once that is received. Also, please make sure that you liaise with the Head of programme Dr N. Zikalala who is in copy who will assist you in accessing the students with minimal disruption to teaching and learning activities.

Wishing you all the best with your studies

Prof. TSP. Ngxongo   Date:

Appendix 3a: Request for assistance with sample size: Statistician

1326 Mthombothi Road

Imbali

Pietermaritzburg

3200

16 May 2022

hendryfam@telkomsa.net

Request for assistance with sample size

Dear Dr Gill

My name is Buzani Ntombela, a Master's degree student at the Durban University of Technology. The research I wish to conduct for my Masters dissertation involves Alcohol use among 2nd, 3rd and 4th year students in a University of Technology.

I am hereby seeking your assistance in calculation of the sample size.

I have provided you with a copy of my proposal which includes a copy of the data collection tool. If you require any further information, please do not hesitate to contact me on 071 468 6676 or email me on FlorenceN@dut.ac.za My target population are the second, third and fourth year students in the following disciplines:

1. Nursing students= 300

2. Education= 690

3. Civil Engineering = 450

Discipline	Second Year	Third Year	Fourth Year
Nursing Students	109	101	90
Education	230	230	230
Civil Engineering	150	150	150
Total = 1440			

Thank you for your time and consideration in this matter.

Yours sincerely,

Buzani Ntombela

Durban University of Technology

Clinical Facilitator at DUT Nursing Department

E-mail: FlorenceN@dut.ac.za

Supervisor: Dr DG. Sokhela

Contact No: 031-37302292

Appendix 3b: Letter of assistance with sample size from: Statistician

Gill Hendry B.Sc. (Hons), M.Sc. (Wits), PhD (UKZN)

Mathematical and Statistical Services

Cell: 083 300 9896

Email: gillhendrystats@gmail.com

 8 September 2022

Re: Assistance with statistical aspects of the study

Please be advised that I have assisted Florence Buzani Ntombela (Student number 21647867), who is currently studying for MHSc-Nursing at DUT, with the statistical analysis of her data.

Yours sincerely

Dr Gill Hendry

Private Consulting Statistician

Appendix 4: Questionnaire

Select the most suitable answer for the following questions by marking a tick (✓) in the appropriate box.

SECTION A: Demographic data

1. Ethnic group

Black	
Coloured	
White	
Indian	
Other -Please specify _____	

2. Age …………………………………………………………………………………

3. Gender

Male	
Female	

4. Marital status

Single	
Married	
Widowed	
Divorced	

5. Religious practice

Christian	
Muslim	
Nazareth	
Other – Please specify: _____	

SECTION B: Drinking patterns

1   Do you drink alcoholic beverages at all?

Yes	No

If you responded NO to this question skip the questions below and proceed to Section D

2   When did you start drinking alcohol?

Primary school	High school	Since completing schooling

3   At what age did alcohol became part of your lifestyle _____

4   How often, on average, do you have a drink containing alcohol?

Never	Less often than once a month	Less often than once a week	Once a week	2-4 times a week	5-6 times a week	Daily

5   How many standard drinks (measuring about 330 ml) containing alcohol do you have on a typical day when drinking?

or 2	or 4	or 6	or 8	or more

97

6   With whom do you drink alcohol?

Alone	ers	mily members	y or girlfriend

7   How often do you have six or more standard drinks (measuring about 330 ml) on one occasion?

ever	ss than monthly	onthly	eekly	ily

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

ever	ss than monthly	onthly	eekly	ily

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

Never	ss than monthly	onthly	eekly	ily

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

ever	ss than monthly	onthly	eekly	ily

SECTION C:

1   Since you started studying at DUT have you dropped behind academically compared to other members of your initial student group?

Yes	No

If   yes   state   the   reason   for   demotion

_____

_____

2   Have you ever missed a class because you were drinking the previous day?

Yes	No

If   yes   state   what   happened

_____

_____

3   Have you ever attended a class after having been drinking a short while before?

Yes	No

If   yes   state   what   happened   -

_____

_____

4   Have you ever been reprimanded/ disciplined for drinking?

Yes	No

If yes please comment

_____

_____

5. Are there any challenges you experienced (as a result of your drinking alcohol) since starting your studying at DUT up until the present e.g. bunking of classes or missing a test?

Yes	No

If yes have you overcome these challenges -
_____

_____

6   Have you ever been counselled about your academic performance?

Yes	No

If yes what was the counselling for

_____

_____

SECTION D: Academic performance

Statements	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1. I have achieved the academic goals I set at the start of my tertiary					
2. Overall I am happy with my test and examination results					
3. I am making steady progress in my academic programme					
4. I am performing poorly in class					
5. I spend less time on academic activities than I need to in order to do					
6. I have fallen behind with my studying.					

Indicate your agreement with the following statements:

Thank you for participating in the study.

Appendix 5: Editing certificate

DR RICHARD STEELE
BA HDE MTech(Hom)
HOMEOPATH
Registration No. A07309 HM
Practice No. 0807524
Freelance academic editor
Associate member: Professional Editors'
Guild, South Africa

154 Magenta Place
Morgan Bay
5292
Eastern Cape

082-928-6208
rsteele@vodamail.co.za

EDITING CERTIFICATE

Re: **Florence Buzani Ntombela**
Durban University of Technology master's dissertation: **ALCOHOL USE AMONGST STUDENTS IN A UNIVERSITY OF TECHNOLOGY IN KWAZULU-NATAL, SOUTH AFRICA**

I confirm that I have edited this dissertation and the references for clarity and language. I returned the document to the author with track changes so correct implementation of the changes and clarifications requested in the text and references is the responsibility of the author. I am a freelance editor specialising in proofreading and editing academic documents. My original tertiary degree which I obtained at the University of Cape Town was a B.A. with English as a major and I went on to complete an H.D.E. (P.G.) Sec. with English as my teaching subject. I was a part-time lecturer in the Department of Homoeopathy at the Durban University of Technology for 13 years and supervised many master's degree dissertations during that period.

Dr Richard Steele
14 October 2022
per email