AN EXPLORATORY STUDY INTO THE EXPERIENCE AND BEHAVIOUR(S) OF STUDENTS WHO USE NYAOPE/WHONGA AT THE UNIVERSITY OF LIMPOPO

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TABLE OF CONTENTS

PAGE NUMBER

DEDICATION vi

DECLARATION vii

ACKNOWLEDGEMENTS viii

LIST OF TABLES AND FIGURES ix

ABSTRACT x

CHAPTER 1: INTRODUCTION 1

1.1 Background and motivation 1

1.2 Research problem 2

1.3 Definition of concepts 5

1.4 Purpose of the study and the research questions 6

1.4.1 Aim 6

1.4.2 Objectives 6

1.5. Significance of the study 7

1.6 Outline of chapters 7

1.7 Summary 8

CHAPTER 2: THEORETICAL FRAMEWORK 9

2.1 Introduction 9

2.2 The Health Belief Model (HBM) 9

2.2.1 Perceived susceptibility 10

2.2.2 Perceived severity 10

2.2.3 Perceived benefits 11

2.2.4 Perceived barriers 11

2.2.5 Cues to action 11

2.2.6 Self-efficacy 12

2.3 Summary 13

CHAPTER 3: LITERATURE REVIEW 14

3.1 Introduction 14

3.2 Reason for illicit drug use 14

3.2.1 Peer pressure 14

3.2.2 Coping with stress 15

3.2.3 Single parenting 15

3.2.4 Unemployment and poverty 16

3.2.5 Cultural and religious beliefs 18

3.2.6 Drug availability and affordability 18

3.3 Attitudes towards drug use 19

3.4 Effects of illicit drug use 21

3.4.1 Effects on an individual's health 21

3.4.2 Effects of illicit drugs on academic performance 22

3.4.3 Social effects of illicit drugs 23

3.4.4 Substance abuse and crime levels 26

3.5 Illicit drug use perspective 26

3.5.1 Global perspective 26

3.5.2 African perspective 27

3.5.3 South African perspective 29

3.6 Summary 31

CHAPTER 4: RESEARCH METHODOLOGY 32

4.1 Introduction 32

4.2 Research design 32

4.3 Sampling 32

4.3.1 Sampling method 32

4.3.2 Sampling size 33

4.3.2.1 Inclusion criteria 34

4.3.2.2 Exclusion criteria 34

4.4 Data collection 34

4.5 Data analysis 36

4.5.1 Familiarisation with data 37

4.5.2 Generating initial codes 37

4.5.3 Searching for themes among codes 38

4.5.4 Reviewing themes 38

4.5.5 Defining and naming themes 39

4.5.6 Producing the final report 39

4.6 Quality criteria 39

4.6.1 Credibility 40

4.6.2 Transferability 40

4.6.3 Dependability 41

4.6.4 Conformability 41

4.7 Ethical considerations 41

4.7.1 Permission to conduct the study 41

4.7.2 Informed consent 42

4.7.3 Anonymity 42
4.7.4 Confidentiality 42
4.7.5 Beneficence 43
4.7.6 Protection from harm 43
4.7.7 Voluntary participation 43
4.8 Summary 44
CHAPTER 5: PRESENTATION OF RESEARCH FINDINGS 45
5.1 Introduction 45
5.2 SECTION 1. Demographic characteristics 45
5.3 SECTION 2: Themes emerging out of the data in tabular format 46
5.4 SECTION 3: Presentation of themes and analysis using the HBM 48
5.4 Theme 1: Causes of drug (nyaope) use – Feeling good 48
5.4.1 Theme 1.1: Peer pressure 49
5.4.2 Sub-theme 1.2: Academic stress 50
5.4.3 Sub-theme: Decline in academic performance 51
5.5 Theme 2 High intensity drug use 52
5.6 Theme 3: Decline in physical and mental wellbeing 53
5.6.1 Sub-theme 3.1: Isolation from others 54
5.6.2 Sub-theme 3.2: Discrimination by peers and others 55
5.6.3 Sub-theme 3.3: Criminal activities 57
5.7 Theme 4: Intentions to stop smoking nyaope 58
5.8 SECTION 4: Discussion and summary of findings 59
5.9 Study strengths and limitations 62
5.9.1 Study strengths 62

5.9.2 Study limitations 62

5.10 Recommendations arising out of the study 63

5.11 Researcher reflexion 63

6. REFERENCES 65

7. APPENDICES

APPENDIX A: TREC C 74

APPENDIC B: Ethics forms 75

APPENDIX C: Questions for research participants 80

APPENDIX D: Semi-structured interview guide 81

APPENDIX E: Editor’s letter 82

DEDICATION

I dedicate this study to my mother, Margret Naniki Mphahlele, my late father, Wilford Mahole Mphahlele (may his soul rest in peace), my sibling, Lethabo Mphahlele, my grandmother Grace Ntombi Mndawe for her enduring love, care, and support for the past 7 years of my studies. This dedication extends to my partner, Palesa Faith Kolokoto as well as my daughter, Ayamaah Regomoditswe Thandolwethu Mphahlele - your support will forever be appreciated.

DECLARATION

I declare that: ‘An exploratory study into the experience and behaviour(s) of students who use nyaope/whonga at the University of Limpopo,’ hereby submitted to the University of Limpopo, for the degree of Master of Arts in Clinical Psychology has not previously been submitted by me for a degree, at this or any other university; that is, it is my work in design and in execution and that all material contained herein has been duly acknowledged.

__________________________ ______________

Surname & Initials (Title) Date

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LIST OF TABLES

Table 1: Demographic information of participants 46

Table 2: Emergent themes 47

Abstract

The use and abuse of illicit drugs is a challenge which affects people on a global scale and South Africa. The use of a new street drug known as nyaope (*whonga*) has been on the rise in the country amongst the youth, including university students. Its use is associated with a wide range of negative consequences such as poor academic performance, aggression, vandalism, rape, risky sexual behaviours, and social dysfunctionality. The main objective of this study was to explore the self-reported experiences and behaviours of students who use nyaope at the University of Limpopo. The study was qualitative in nature as the researcher wanted to gather first-hand, in-depth information. The sample was purposive in nature and consisted of 6 participants. Quality criteria were used to ensure the quality and rigour of the findings. Thematic content analysis (TCA) was used to analyse data. Six major themes emerged from the analysis which were supported by existing findings. The themes were identified as: causes of drug use, frequency of drug use, experiences of students, knowledge about the negative implications of the drug and self-reported behaviours. Participants reported experiencing a decline in academic performance, deteriorating relationships with others, poor physical and psychological wellbeing, behavioural changes and perceiving that they were discriminated against. The findings of this study are useful to aid in informing policy and interventions at the University. They may also help psychologists who work with drug abusers.

CHAPTER 1

INTRODUCTION

1.1 Background and motivation

The use and the abuse of illicit drugs is a challenge which affects people on a global scale and South Africa has a history of excessive substance use amongst the youth (Mokwena & Human, 2014). The United Nations Office on Drugs and Crime (UNODC, 2010) identified South Africa as one of the drug centres of the world. The Substance Abuse and Mental Health Services Administration (SAMSHA, 2014) report indicated that drug consumption in South Africa was twice the global norm and that an estimated 15% of South Africans have a drug or substance dependence problem. It was also reported that marijuana, cigarettes, and alcohol are the most abused substances in the country. According to Mokwena and Human (2014), some studies indicate that the use of a relatively new street drug known as *nyaope* has been on the rise amongst street gang members and university students. These authors suggest that peer influence is one of the reasons why *nyaope* is becoming such a popular street drug. Students and users in Limpopo Province refer to this drug as *whonga.* In this research it will be referred to throughout as *nyaope*.

According to Steyl and Phillips (2011), perceptions and knowledge about the use of different substances are key in understanding certain patterns of drug use. If individuals do not have the required knowledge, they may use illicit substances thinking that these drugs will not have cumulative effect on them. This evidence suggests a dangerous combination as consumption is high but knowledge about substance abuse is relatively low. Consistently high levels of consumption amongst students highlight the need for effective preventative and treatment interventions amongst the youth (Mokwena & Human, 2014).

Also, worth noting is the significant link that has been found by previous studies between the poor level of knowledge that university students possess in relation to some of the harmful implications, or repercussions, involved in the use of illicit drugs and substances (Steyl & Phillips, 2011).

According to the SAMHSA (2014), although most research suggests that alcohol use is higher than the use of any other drugs or substance as the level of dependency, addiction and abuse of illicit drugs is still a major factor in social institutions such as schools, families and communities at large. In essence, understanding all the dynamics of illicit drug and substance abuse is key in designing and implementing preventative and treatment programmes which can effectively reduce the amount of illicit drug and substance use amongst university students (Mohasoa, 2010).

Silva et.al. (2006) highlight various risk factors that have been associated with the prevalence, cause, and cessation of illegal substance use amongst a student populace. These factors range from intra-personal risk factors such as personality, cognitions, affect, problem behaviours, demographics, and social bonding. In addition to intra-personal risk factors, there are also interpersonal risk factors such as peer pressure, social disorganisation, and lack of parental monitoring, which are external factors to the individual.

1.2 Research problem

The use of illicit drugs has been linked to a range of developmental, behavioural, and social problems in communities. Although a number of awareness and anti-drug campaigns have been run by Government and Non-Governmental Organisations (NGOs) in South Africa, they have not had any significant impact on the use of drugs by students who attend tertiary education campuses in the country (Cullen, 2003; SAMSHA, 2014). A large amount

of attitudinal data on the health implications is available, however, it has leaned towards examining opinions towards prohibition of drugs, rather than issues such as reasons why the rate of usage is escalating amongst the youth and particularly in university students as well as how it affects students directly or indirectly (SAMHSA, 2014).

Many studies have been conducted on illicit drugs and have tackled different aspects in relation to this substance abuse. The focus is usually on criminalisation, health implications as well as the question on whether a particular drug is addictive or non-addictive in nature. For several years, it has been an interesting subject of study however, people's attitudes and insight towards the use of illicit drugs varies and there is little in-depth qualitative research on the topic (Mokwena & Morojele, 2014).

A 2012 study of over a thousand individuals from birth through to midlife found that persistent marijuana use was associated with neuropsychological decline across cognitive domains which included poor memory and declining Intelligence Quotient (IQ). Furthermore, cessation of the use of drugs such as marijuana did not fully restore the neuropsychological functioning amongst adolescent-onset drug users (Meier et al., 2012).

According to the National Institute on Drug Abuse (NIDA, 2015), marijuana is seen by some students as a purely recreational drug which serves as a rite of passage at any university. However, they state that this has led to marijuana drug use among students increasing decade by decade since the 1980's. This increase is concerning as it is believed that marijuana acts as a gateway drug which introduces users to stronger drugs such as *nyaope*. It is also true that users fail to understand the dangers of any drug use and abuse just as those that abuse alcohol fail to acknowledge its dangers. Mokwena (2016), argues that perceptions towards marijuana are beginning to change (negatively) in society due to the fact that it is the principal active ingredient used in the street drug known as *nyaope*, along with

cleaning detergents, heroin and antiretroviral drugs particularly efavirenz which is the type prescribed to treat HIV as well as rat poison.

The use of illegal substances (for instance, marijuana and *nyaope*) and other drugs has been associated with a wide range of negative consequences such as decreased academic performance, aggression, vandalism, acquaintance rape, risky sexual behaviour(s) and social dysfunctionality (Mokwena & Morojole, 2014).

In this study the researcher was aware of students on campus who smoked marijuana and *nyaope* and, as these drugs are implicated in psychological issues such as psychosis, depression, anxiety, substance dependence and the risk of drug overdosing, there are many health implications. Furthermore, Van Heerden et.al. (2009), report that a number of studies on drug use amongst adolescents suggest that the use of illicit substances has escalated exponentially in South Africa's universities and tertiary education campuses in the last decade however, little research has been established to explain the cause for this phenomenon.

Parry et.al. (2004) argue that despite numerous surveys that have been conducted there is a gap in the literature as very little, if any qualitative research has been carried out seeking to understand the reasons for using *nyaope*, as well as the experiences of tertiary education students in terms of using this particular illicit substance. The author also states that, substance abuse and dependency among university students is still not well understood as the vast majority of studies report symptomology and attitudes instead of behaviours, perceptions, and experiences. This study thus attempts to help fill this gap in terms of the illicit street drug known as *nyaope*.

1.3 Definition of concepts

- **Tertiary students**

Student involved in post-secondary education which is an educational level is following the completion of a school, providing a secondary education. Tertiary education includes universities as well as trade schools and colleges (Morley, 2015).

- ***Nyaope* (street name whonga)**

The substance is often described as a cocktail of various ingredients. These may vary, but the principal active ingredient of the drug is marijuana mixed with heroin, rat poison as well as antiretroviral drugs particularly efavirenz, which is used to treat HIV (Khine & Mokwena, 2016).

- **Marijuana**

Marijuana is known as weed, herb, pot, grass, bud, ganja, Mary -Jane, and a vast number of other slang terms. It is a greenish-grey mixture of the dried flowers of Cannabis Sativa (Manu & Ntsaba, 2016).

- **Illicit drugs**

Illicit drugs refer to drugs that are 'illegal' or 'forbidden' either to use, sell or make (Khine & Mokwena, 2016). Marijuana is legal to smoke in South Africa since 2018, for personal consumption only (Nel, 2018) however, *nyaope* is not.

- **Substance abuse**

In this study substance abuse is defined as a maladaptive pattern of substance use manifested by recurrent and significant adverse consequences related to the repeated use of substances (DSM-5, 2013).

- **Substance dependence**

In this research is described as a cluster of cognitive, behavioural, and physiological symptoms indicating that the individual continues use of the substance despite significant life problems associated with its use. Additionally, substance dependence has a distinct pattern of use that often results in tolerance, withdrawal symptoms, and compulsive substance abuse behaviours (DSM-5, 2013).

- **Drug addiction**

This research defines drug addiction **as** a condition which is generally characterised by compulsive drug taking, drug craving and drug seeking behaviours, in spite of the negative consequences that are associated with it (Leshner, 2001).

1.4 Purpose of the study and the research objectives

1.4.1 Aim

The central objective of this study is to explore the experiences and self-reported behaviours of students who use *nyaope* at the University of Limpopo.

1.4.2 Objectives

- To delve into the experiences of students registered at the University of Limpopo, who use *nyaope*.
- To determine the extent to which students who registered at the University of Limpopo, who use *nyaope*, are informed about the negative implications of *nyaope* use.
- To identify self-reported behaviours which students registered at the University of Limpopo, who use *nyaope*.

1.5 Significance of the study

This qualitative study helped fill the stated gap in research that is qualitative studies, on the self-reported experiences, perceptions and behaviours of students who use the drug *nyaope*. The findings can also aid in developing appropriate interventions and preventative measures to maximise the psychological wellbeing of the students (who use *nyaope* and other drugs) as the University was provided with the research finding.

1.6 Outline of chapters

Chapter 1: Chapter one provided the background of the study, problem statement, objectives, and significance of conducting this study.

Chapter 2: Provided the theoretical framework supporting this study. The theoretical framework was also discussed in relation to other studies which have used it. More importantly, the link between the theory and this study is outlined at the end of the chapter.

Chapter 3: Chapter 2 discussed literature review based on the drug use. Review of previous literature was carried out in line with the objectives of the study.

Chapter 4: Outlined the research methodology adopted for this study. Briefly, this chapter details the key steps taken by the researcher to collect and analyse data in order to achieve the objectives of the study.

Chapter 5: Presented the results of the study. In this chapter the demographic information of participants was presented followed by the discussion of key themes which emerged from the responses of the participants. The chapter also discussed these findings as compared to previous studies on the subject matter.

1.7 Summary

This chapter provided the background, motivation, aims and objectives and the significance of the research that was undertaken. The following chapter presents the theoretical underpinning for the study.

CHAPTER 2

THEORETICAL FRAMEWORK

2.1 Introduction

This chapter's major purpose is to discuss the theoretical paradigm used to underpin this study which is the Health Belief Model (HBM).

2.2 The Health Belief Model (HBM)

The Health Belief Model (HBM) was used as a theoretical paradigm to guide this study. The HBM has its origin in the U.S. Public Health Service. It was developed by Rosenstock et al. in1950 to address the lack of robust models to screen for different health problems in the US. The HBM is used widely in studies to understand and explain behaviours associated with engaging in a phenomenon (Deskins et al., 2006). According to Huang et al. (2016), having been developed in the 1950s, the HBM continues to be a useful tool in predicting and explaining behaviour especially in terms of adopting positive health behavioural habits.

Other studies are of the view that the HBM is useful in preventing risk behaviours by encouraging individuals to engage in health yielding behaviours (Becker & Maiman, 1975; Rosenstock et al., 1988). The HBM consists of six factors which are used to understand, explain, and predict behavioural change among individuals. According to Huang et.al. (2016), "the six factors include perceived susceptibility, perceived severity, perceived benefits, perceived barriers, cues to action and self-efficacy" (p.397).

2.2.1 Perceived susceptibility

According to Rosenstock (1974), perceived susceptibility explains the subjective evaluation by an individual to determine if they are likely to suffer from a certain health problem because of engaging in a certain behaviour. When the individual perceives the chances of being sick as high, the individual is likely to consider dropping the current behaviour and adopt a health behaviour. Hence, this is applicable to students who use *nyaope*. Nevertheless, some people can perceive that they are highly susceptible to suffer from serious health problems but continue to engage in the same behaviour. However, Rosenstock (1974) argued that when individuals perceive that current behaviour exposes them to health problems, they are highly likely to adopt health-promoting behaviour.

2.2.2 Perceived severity

Perceived severity explains the evaluation by an individual on the health problem resulting from a certain activity. The HBM explain that when the individual perceives that the health problem is severe, they then tend to look for ways to reduce it (Glanz et al., 2008). On the other hand, if the health problem is perceived to be less severe, then individuals tend to continue with the current behaviour (Rosenstock, 1974).

In this study, perceived severity helps individuals smoking *nyaope* to evaluate if health problems associated with taking this illicit drug such as loss of memory and relapses call for them to quit this drug or not. In this case, they are likely to consider behaviour change towards adopting health behaviour given that they have witnessed the people dying from *nyaope*.

2.2.3 Perceived benefits

Perceived benefits also play a crucial role in one's behaviour change (Glanz et al., 2008). When an individual perceives that there are benefits to be had for changing their current behaviour, hence they will consider adopting health promoting behaviour. For instance, if students who use *nyaope* perceive that quitting it can make them to complete their degrees in record time and guarantying them of their dream jobs, they are likely to quit and adopt health promoting behaviours.

2.2.4 Perceived barriers

Perceived barriers are the things that an individual perceives as possible factors that can block their endeavours of adopting health promoting behaviours (Glanz et al., 2008). For instance, an individual can clearly perceive that their life is in danger because of the current behaviour but certain barriers can stop them from changing the undesirable behaviour. Perceived barriers can be peer pressure, pain, fear of unknown and financial costs among others. In the case of *nyaope* addicts, the perceived barriers can be the pain to do away with addiction and loneliness. Having identified the perceived barriers can go a long way in assisting the *nyaope* addicts in finally quitting the drug.

2.2.5 Cues to action

Cues to action are defined as the things which can trigger action. According to Carpenter (2010), cues to action can be internal or external. Internal cues to action are categorized as things such as severe sickness or pain which then trigger someone to consider adopting health promoting behaviour. On the other hand, external cues to action consist of things outside the individual which can influence them towards behaviour change. These include the media, information from peers and information from health practitioners.

Considering the case of students who use *nyaope*, cues to action can include sicknesses and drowsiness brought about by this illicit drug. These can trigger them to consider quitting and adopt more health promoting behaviours. Furthermore, continuous visits and discussion by the psychologist can also trigger them to see the dangers of taking *nyaope*, hence, consider quitting it out rightly.

2.2.6 Self-efficacy

Self-efficacy is a strong will by an individual that they are responsible for their own life (Rosenstock et al., 1988). In this case, it can be defined as one's conviction that they can be able to change the current behaviour and adopt a more health promoting behaviour. The HBM postulates that, when one's self-efficacy is high, they are likely to change positively because in most cases it also takes self-drive for a person to quit something perceived a threat to their lives.

The factors outlined in the HBM determines one's commitment or lack thereof in changing behaviour towards health habits (Rosenstock, 1974). According to Reisi et.al. (2014), the HBM is also known to be a reliable predictor for smoking behaviour which makes it an ideal theory to be used in this particular investigation. Particularly, this study is concerned with scrutinising the available information and analysing the link between the various concepts of the HBM namely perceived susceptibility, perceived barriers, perceived benefits, perceived self-efficacy and cues to action in line with the use of *nyaope* in students at the University of Limpopo. This makes it an appropriate theory with which to underpin the investigation.

However, the HBM has been criticised by other studies. Harrison et al., (1992) conducted a meta-analysis study on the HBM. The study used adults as its sample. One of the study's findings revealed that the HBM's explanatory power is weak.

Such sentiments were also supported by Carpenter (2010) who reported that the HBM's ability to predict behaviour is unsatisfactory. All in all, the HBM has been used widely in existing literature (Carpenter, 2010), hence proving that it is an effective tool to explain and predict behaviour. Janz and Becker (1984) further note that the HBM has been adopted broadly in studies intending to predict health related behavioural adjustments. More importantly, the HBM has been practically used to design intervention programs to promote more health promoting behaviours (Glanz et al., 2008).

2.3 Summary

This chapter presented the HBM as the theoretical framework for this study. It was discovered the HBM consists of six factors which are perceived susceptibility, perceived severity, perceived benefits, perceived barriers, cues to action and self-efficacy. It was understood that each of these factors influences one's actions adopting more health promoting behaviours. The following chapter presents a review of relevant literature for the study.

CHAPTER 3

LITERATURE REVIEW

3.1 Introduction

This chapter provides an overview of existing literature related to illicit drug use among the youth, particularly tertiary students. The chapter reviews illicit drug use from a global perspective and African context, after which the South African context is considered. The chapter also presents literature related to reasons for illicit drug use amongst the youth and their attitudes towards it, as well as the effects of illicit drugs on academic performance. It also looks at research on perceived social problems associated with illicit substance use.

3.2 Reasons for illicit drug use

3.2.1 Peer pressure

According to Van Zyl (2013), peer pressure is the main reason behind drug use among the youth in South Africa, especially in universities. The same study further indicates that student drug users get caught up in gangs due to their desire to fit in. Another study by Mohasoa and Fourie (2012) reported that peer pressure is one of the key factors in determining whether adolescents and young adults become involved in illicit drug use. Ghuman et.al. (2012) shared similar sentiments when they found that youths were likely to use illicit drugs if their friends were also using. This is supported in a study conducted by Somani and Meghani (2016) who reported that peer pressure strongly predisposes youth to use illicit drugs. Furthermore, these authors state that adolescents and young adults who use and abuse illicit substances are more likely to have mental health problems such as depression.

3.2.2 Coping with stress

Coping with stress is another reason why university students take drugs. The stress usually emanates from academic pressure and poverty, thus the inability to buy food (Monyakane, 2018). Patrick et.al. (concur) and assert that most youth in South Africa abuse drugs because of academic stress one the one-hand and not having enough money to buy food and other necessities.

They found that young adolescent males were likely to use drugs such as marijuana, which often led to stronger drugs, with the aim of forgetting about their problems. Conversely, adolescent females were more likely to use marijuana, and stronger drugs, to help them cope with negative feelings related to poor self-confidence. However, both sexes use drugs to have a sense of belonging within a specific social group which, they perceived, help them cope with social and academic stressors. Adeyemo et.al. (2017) postulated that most university students take drugs in order cope with stress emanating from strained relationships with their lecturers and poor academic performance. This is supported by Monyakane (2018) who notes that negative coping mechanisms are used by students in order to help them cope with these issues amongst the most common of these is the use of substances for instance, alcohol, prescription drugs and illicit drugs.

3.2.3 Single parenting

Hemovich et.al. (2011) investigated the effect of family structures and interpersonal perceptions of family related to the use of illicit drugs. The study revealed that adolescents and young adults raised by single parents were more likely to use illicit drugs than those with both parents. The study argued that, due to financial hardships, most single parents spend most of their time away from their children doing odd jobs to make a living.

This exposes children to outside influences, and much peer pressure, which often results in illicit drug use. This is supported by an investigation by Adeyemo et.al. (2017) who reported that drug use amongst the youth, particularly young males, emanates from growing up without both parents. Nyki (2015) also identified this problem and suggested that many children in Africa grow up without parents thus are not exposed to codes of conduct associated with socials morality. Consequently, this has led to many youngsters of single parent families in Africa and South Africa to using drugs from childhood. There are many single parent households in South Africa, the majority is female headed households, thus young males do not have a father figure in their childhood which can be problematic in terms of lack of guidance (Mudau et al., 2018).

This is supported in research by Van Zyl (2013) who reports that a significant number of youths in South Africa abuse drugs because they do not have parental role models in order to learn good behaviour from, since many children are raised by single parents. The author states that the same is true for children who have both parents but live-in dysfunctional homes for instance, if one or both parents abuse alcohol.

Smith-Genthos et.al. (2017) suggest that illicit drug use is also facilitated by parents who are self-involved and do not notice, or discourage, negative (wayward) behaviours amongst their children. When negative behaviours are not addressed at a young-age, children may grow up with serious behavioural problems for instance, illicit drug use.

3.2.4 Unemployment and poverty

Unemployment is also a major reason why youngsters end up taking illicit drugs (Peltzer & Phaswana-Mafuya, 2018). Unemployment is very high amongst youth in South Africa as compared to the adult population (Monyakane, 2018).

The author reports that most youth in the country come from impoverished family backgrounds because of colonialisation, separate development and apartheid.

In contemporary South Africa, because of lack of work and deprivation the youth are driven to use and abuse drugs (Mokwena & Morojele, 2014). This drug use is a way of coping with the stress associated with being unemployed as well as hunger (Monyakane, 2018). Sadly, this exposes them to illicit drugs like *nyaope* which, in turn, causes them very serious health problems. Monyakane (2018) posits that unemployment is one of the chief causes of illicit drug use among adolescents and young adults in South Africa.

This is supported by Motsoeneng (2018) who noted that many youths in South Africa do not have anything else to do as they are unemployed. As such, they spend most of their time roaming around townships in groups and end up using illicit drugs such as *nyaope* to pass the time. Regrettably, this is often their first step into serious *nyaope* addiction which is difficult to treat. When taking this drug many individuals are thrown out of their homes and lose their self-identity and can be seen roaming around lost and hopeless. Monyakane (2018) suggests that this has created high crime zones in townships as *nyaope* addicts will do anything to get their next 'fix.'

Furthermore, a study conducted by Somani and Meghani (2016) found out that illicit drug abuse is common amongst poverty-stricken people who use it to cope with the stress of being unemployed. Moreover, the study reports that poverty is the major reason illicit drug use is prevalent amongst both developed and developing countries. Ephraim (2014) found that the *nyaope* problem is high amongst blacks in South Africa, as they are historically disadvantaged and impoverished group.

3.2.5 Cultural and religious beliefs

Manu and Ntsaba (2016) argue that marijuana smokers have deep-rooted beliefs cultural beliefs about the health benefits of marijuana. They state that the plant is utilised in a variety of ways by people in traditional communities, including women and children, who use it as treatment for different diseases. It is seen as a ‘natural cure’ thus not dangerous. The use of marijuana has increased rapidly after the recent legalisation making the drug legal for self-use in South Africa (Nel, 2018). Since marijuana is one of the major ingredients used to make *nyaope*, fears are that it might perpetuate the use of *nyaope* amongst adolescents and young adults as it (and its mixers) is readily available. This is underpinned by the Rastafarian religion where marijuana is commonly shared in the entire family and is highly regarded as it is used to become one with self-and God. According to Manu and Ntsaba (2016), the use of medical marijuana (without the element which induces psychosis) has become globally popular which has further popularised the drug.

3.2.6 Drug availability and affordability

In South Africa drugs such as marijuana and *nyaope* are ‘cheap’ and readily available. A study conducted by Tshitangano and Tosin (2016) at a rural secondary school revealed that learners easily accessed drugs in their communities. Their drug of choice was marijuana but there was a growing trend to stronger drugs such as *nyaope*. Peltzer and Phaswana-Mafuya (2018) concur and assert that the chief cause of illicit drug use among the youth are easy availability and low cost. This perpetuates issues of drug use and abuse amongst adolescents and young adults.

Similarly, a study by Khosa et.al. (2017) revealed that drugs are sometimes sold within, and outside, school premises which motivates learners to try them.

Furthermore, the authors state that this is worrying as it has gone on for many years unabated and neither schools nor government have carried out any interventions. Monyakane's (2018) research support this, he reports that one of the major causes of *nyaope* abuse in South Africa is because of its easy accessibility and affordability. According to the author, in 2018 it cost between R20-R30 for a packet in most South African communities.

To make matters worse, some researchers argue that the ingredients used to make *nyaope* are easily accessible. The author also found that many young people in South African townships knew how to prepare *nyaope*.

A study conducted by Mokwena and Morojele (2014), in three different provinces (Gauteng, North West and Mpumalanga) also established that easy, and cheap, drug availability was one of the causes of illicit drug use in the country. Peltzer and Phaswana-Mafuya (2018) identify marijuana as one of the most common illicit drugs used by youth in South Africa and globally.

3.3 Attitudes towards drug use

It is critical to understand young people's attitudes towards illicit drugs such as *nyaope*. This is important because attitudes predict actual behaviour, that is whether an individual is likely to use illicit drugs or not. According to Friis et.al. (2017), this can help in identifying youth who are at risk. They also suggest if vulnerable youth can be identified then it should be possible to refer them to intervention programs to stop them from becoming addicts. The researchers also found that they youngsters in their study, males and females aged 16 – 24 years, had positive attitudes to illicit drugs and did not consider any negative consequences of drug use.

The study further revealed that having positive attitudes towards illicit drugs was associated with risky behaviours such as illicit drug abuse and engaging in unprotected sex.

It was also noted that those youth with positive attitudes to illicit drugs used marijuana in the previous year ten times more than their counterparts (Friis et al., 2017), A study conducted by Silins et.al. (2015), on the effects of illicit drug use, found that a significant number of teenagers perceived marijuana use as being harmless and also suggested that other drugs, with a base of marijuana, was unlikely to have a detrimental impact on their health.

Furthermore, this is supported by research conducted by Manu and Ntsaba (2016), who highlighted that various marijuana smokers thought that it caused no harm to the user as they had (or knew people who had) smoked marijuana for an extended period of time and, as far as they were aware, had suffered no detriment to their cognitions. The misconception that marijuana (and by inference any drug that has its base as marijuana) is harmless to an individual's health has a global following which is problematic in terms of it being identified as a precursor to stronger drug use.

Grelotti et.al. (2014) state that in the past few years South Africa has experienced an increase in the amount and types of illicit drug manufacturing, use and distribution. This has resulted in an increase in the burden of mental health across communities. The patterns of illicit drug use such as *nyaope* have been linked to regional and country variations, socio-economic status, racial and geographical differences. *Nyaope* is one of the designer or cocktail drugs commonly used in black townships and has been in circulation for more than ten years. It is worrying that many young people do not see any risk associated with illicit drug use (NIDA, 2014). On that note, the prevalence of *nyaope* use amongst the youth in South Africa is of serious concern since many do not perceive it as dangerous (Matuntuta, 2014).

3.4 Effects of illicit drug use

3.4.1 Effects on an individual's health

According to McGrath et.al. (2010), the use of illicit drugs has been found to be directly linked to several mental illnesses such as schizophrenia, anxiety, and depression. This is supported by a study conducted by Peltzer and Phaswana-Mafuya (2018) on drug use among youth and adults in South Africa.

The study notes that illicit drug use has become a public health concern in South Africa. The research further concludes that illicit drug use exposes young people to a myriad of health problems such as mental disorders, and depression.

Nyaope is linked to the spread of HIV and AIDS in South Africa. In support, a report by Makgatho (2018) on *nyaope* usage amongst youth in South Africa indicated that *nyaope* is becoming one of the major factors leading to the spread of HIV and AIDS. For instance, Makgatho (2018) found out that there is a common practice among *nyaope* addicts called Bluetooth where the one who is high transfers his/her blood to others using an injection. The report further shows that this act has since been adopted by people who work in the sex industry which already has a high HIV prevalence. If not capped, *nyaope* abuse can thus increase the spread of blood borne infections.

Drug abuse is associated with young people engaging in multi-partner relationships where, as they are 'high', they do not act responsibly and wear condoms (Makgatho, 2018). This means they can catch Sexually Transmitted Infections (STIs) or have unplanned pregnancies. According to Matuntuta (2014), *nyaope* exposes people to several health problems. These include muscle cramps, sporadic undefined illness, insomnia, diarrhoea, and vomiting.

Most studies report that *nyaope* is so addictive that it becomes difficult for a person to stop using it (Matuntuta, 2014). This is supported by other research by for instance, Monyakane (2018) who notes that it is a difficult drug to be rehabilitated from and, it is also one of the most toxic drugs on the market and that taking it can result in death. The study expresses, with concern, that *nyaope* damages the mental functioning of those who consume it. In most cases, *nyaope* addicts are found to have a reduction in reasoning and thinking capacity

When compared to those who have never used illicit drugs, young adults who started using drugs at age 15 or younger were found to be more susceptible to developing a psychotic disorder and are more likely to experience delusional symptoms. A close response relationship found that the longer the period of illicit drug use, the higher the risk of developing physical and psychological illness and cognitive decline (Monyakane, 2018).

3.4.2 Effects of illicit drugs on academic performance

Yi et.al. (2017) investigated the prevalence of illicit drug use amongst Southeast Asian Nations (ASEAN) university students. The study reported that use of illicit drugs reduces their academic performance. Furthermore, the study submitted that the use of illicit drugs can cause university students to be unproductive and to drop out. This, consequently, reduces their success rate and hence, prolongs the time needed to complete their studies.

This is underpinned by other existing studies indicate that use of illicit drugs is positively linked to withdrawal from academic activities which eventually leads to dropping out (Tshitangano & Tosin, 2016). According to Mabokela (2018), the use of illicit drugs such as *nyaope* reduces academic performance and increases dropout rates. Furthermore, the study noted that illicit drug use perpetuates truancy among school going teenagers which results in them being expelled from school.

Chukwu et.al. (2017) conducted a study on the effect of illicit drugs on academic performance among high school students. The study findings revealed that illicit drug use causes students to engage in negative behaviours which affect their academic performance negatively. Some of the negative behaviours include missing classes and cheating during exams.

Other studies also support this assertion and found that illicit drug use causes mental dysfunction amongst students (Amadi & Akpelu, 2018; Akwene, 2019; McLeod et al., Rohrman, 2013). This hinders their academic performance and social and emotional developing. They are unable to concentrate and are spend little time studying and are prone to absenteeism.

3.4.3 Social effects of illicit drug use

Nyaope use does not only affect the user but the family and society at large (Mokwena, 2015; Somani & Meghani, 2016). *Nyaope* users tend to engage into socially undesirable behaviours after getting high. Most community members do not feel safe around *nyaope* users as their behaviour is unpredictable which suggests they become a nuisance to the community. Mahlangu and Geyer (2018) remark that *nyaope* use weakens social development in the country and that drug abuse facilitates many social problems (Fernandes & Mokwena, 2016). For instance, drug abuse negatively affects all facets of society related to social development (The United Nations Commission on Narcotic Drugs Political Declaration, 2014). This report also noted that some illicit drugs, such as *nyaope*, cause antisocial behaviour.

According to Monyakane (2018) illicit drugs such as *nyaope* triggers social problems such as prostitution. Evidence suggests that many (male and female) *nyaope* addicts end up engaging in sex-work to raise money to buy the drug. For instance, in a study conducted by Monyakane (2016) it was revealed that many adolescents in South Africa were involved in prostitution in order get money for *nyaope*. This, the author states, is a serious social problem as it violates the social values of Ubuntu in African communities.

The Substance Abuse and Mental Health Services Administration (2014) found that illicit drug use is strongly associated with random sexual activity for both males and females. As drugs tend to encourage impulsive behaviour and impair an individual's judgement this means that individuals may end up engaging in activities which they would not normally engage (when they are under the influence of illicit drugs and substances). Van Zyl (2013) and Adeyemo et.al. (2017) support this assertion and allude that drug use among university students is linked to unsafe sex which is a major cause of the HIV and AIDS pandemic in Southern Africa.

Mokwena and Huma (2014) report that illicit drug users are likely to experience social problems which emanate from their drug using habits. Regular drug users often describe that after using they experience behavioural changes such as reluctance to take part in social activities, completion of daily chores and in most cases disregard for socially acceptable behaviour. This impacts on their social relationships adversely. According to the authors, to some extent, drug users understand the consequences, as well as negative effects, associated with the use of illicit drugs. This means they know that in traditional African communities for instance, they are perceived as social outcasts as their behaviour deviates from the social norms. This is because their behaviours are often disruptive and criminal.

Miller et.al. (2006) assert that given the widespread adverse effects of illicit drugs, it is not surprising that substance abuse and substance addiction are viewed as evil and destructive forces within all societies and societal institutions. They note that it is not only the addicted person's life which is destroyed, but the lives of significant others and family members. Motsoeneng (2018) conducted a study on the experiences of family members of *nyaope* users and their knowledge on the available social policy interventions. The study was conducted in Johannesburg, South Africa. The results indicated that use of illicit drugs, such *nyaope* destroys family ties. The interviewed families indicated that their relationships with their children, who use *nyaope*, had been broken.

These findings are supported by similar studies such as Schultz and Alpaslan (2016) research which found that family members of *nyaope* users suffer depression emanating from frustration that their children are engaged in such life damaging drugs. This destroys family bonds, as some family members tended to withdraw and distance themselves from *nyaope* users in the family. In traditional African family's members distanced themselves from the users to protect their image and the family name (Groenewald & Bhana, 2016). Another study by Smith and Estefan (2014) also points out that *nyaope* use causes serious social problems which results in family dysfunction. This is facilitated by the uncontrollable behaviour of *nyaope* users which results in unending conflicts in the whole family and their surrounding society (Groenewald & Bhana, 2016).

Mokwena (2016) stated that there is a need to conduct more studies to explore how the substance abuse can be a significant psychosocial stressor to the drug user's family, community and have a potentially negative impact on significant others such as friends and colleagues. The author suggests that much research is required to establish the overall effects of substance abuse on the family and wider societal context of the user.

3.4.4 Substance abuse and crime levels

Tshitangano and Tosin (2016) assert that 60% of all crimes committed in South Africa are caused by drug abuse. They indicate that *nyaope* users contribute to a large percentage of this figure (Mabokela, 2018). Adeyemo et.al. (2017) agree and assert that drug abuse perpetuates criminal activities amongst the youth.

This is supported by Monyakane (2018) who states that the perpetuation of criminal behaviour is among one of the effects of *nyaope*. The worst scenario exists when *nyaope* addicts steal from their own family members in order secure their daily 'fix.' (Mokwena & Huma, 2014).

Dennis (2014) reports that due to the addictive nature of illicit drugs, and the prevalence of its users being from poor communities, users are more likely to engage in criminal acts such as petty theft in an attempt to sustain their drug habits. These criminal acts are motivated by the intense cravings the users are experience. Most of them report stealing anything that they can lay their hands on to sell such as clothing, blankets, and any valuable household items from their families. In most cases the users either end up in prison or, sadly, end up being disowned by their families due to their repeated delinquency. Moreover, many illicit drug users who wind up in prison were under the influence of drugs while committing crimes. The UNODC (2010) reports that it is not uncommon for individuals who are addicted to drugs to being involved in criminal activity to sustain their drug use. Furthermore, it was reported that the majority of South Africans who are arrested for some sort of criminality are under the influence of drugs or alcohol or both.

3.5 Illicit drug use perspectives

3.5.1 Global perspective

The issue of drug use has become one of the pressing challenges experienced globally (Khosa et al., 2017; Tshitangano & Tosin, 2016). However, Somani and Meghani (2016) noted that developing countries are much more likely to be affected negatively than more developed countries due to poor socio-economic conditions. Accordingly, the variety of illicit drugs and the illegal markets for drugs have increased exponentially in under-developed countries (UNODC, 2018). This report indicates that illicit drug use is higher and more complex among the youth than older people in developing countries. A study by Gazibara et.al. (2018) on the use of illicit drugs amongst university students in Serbia found that this was the greatest threat to their well-being in the country. They noted that the youth were experiencing ever-increasing mental health problems such as depression and suicidality. The UNODC report (2018) submits that measures are needed to suppress both supply and demand of illicit drugs in all countries but particularly those that are designated developing nations.

3.5.2 African perspectives

Drug use in Africa is on the rise exponentially (UNODC, 2018). According to Adeyemo et.al. (2017), who support this assertion, drug use is prevalent in Africa especially amongst university students. The study found that university students take drugs to fit in with their peers and for medical purposes. Another study by Tshitangano and Tosin (2016) reported that marijuana is the number one illicit drug used by youth in Africa. West Africa has recently emerged as a hub for drug transit and exchange (UNODC, 2018). This has become a serious challenge, the report indicates, because the drug lords have resorted to working with university students to transport and sell the illicit drugs.

The report further notes that some Western African students who travel overseas are in jails because they are used to smuggle drugs into these nations.

According to Peltzer and Phaswana-Mafuya (2018), marijuana tops the list of illicit drugs consumed by youth in South Africa. These authors suggest that the use of marijuana is a contributing factor to the use of stronger drugs such as heroine and *nyaope*. Recently, as marijuana has been identified as one of the base drugs used in *nyaope* it has subsequently been viewed as being more dangerous. It has been identified that when marijuana is combined with other drugs and chemicals to create *nyaope*, the negative effects are much worse than using marijuana alone (Mokwena, 2016).

Although there is a limited amount of literature on the drug and there has been a general agreement that *nyaope* is a concoction of ingredients which usually contains low grade heroin, marijuana, cleaning detergents, antiretroviral medications, rat poison as well as chlorine. However, this cannot be confirmed due to lack of a comprehensive national research initiative in analysing the mixture across different communities, as well as difficulty in obtaining the mixture samples (Khine & Mokwena, 2014). Other studies state that heroin and cocaine are the major ingredients in *nyaope* (Motsoeneng, 2018). Studies such as those by Grelotti et.al. (2014) as well as Davis et.al. (2015) support the view that ARVs are also one of the ingredients used to make *nyaope*.

Degenhardt et.al. (2018) conducted a study on the global burden of health problems emanating from drug abuse. The study findings indicated that Africa has a huge burden of health problems caused by illicit drug abuse. Consequently, a significant number of its population is dying from diseases such as HIV and AIDs and other related diseases caused by irresponsible sexual behaviours when people are high with drugs.

3.5.3 South African perspectives

Matuntuta (2014) identified *nyaope* as a deadly illicit drug found in South Africa. The study indicates that *nyaope* surfaced around the year 2000 in the Tshwane townships of Soshanguve, Attridgeville and Mamelodi. The high consumption of *nyaope* was later was recorded in Durban in 2010 before it spread to the rest of the country. This street drug is given different names depending on the location (Monyakane, 2018).

The name *nyaope* (Tswana) is derived from the English word 'mishmash' which means something useless. On the other hand, *nyaope* is linked to KwaZuluNatal. It describes the sound this illicit drug makes when infiltrating an individual's mental faculties.

Drug abuse among the youth is a cause for concern among South African policy makers (Van Zyl, 2013). According to Monyakane (2018), drug abuse is the second worst problem, after HIV and AIDS, that the country is dealing with (the present research was completed before the Covid-19 pandemic). Youth are exposed to illicit drugs and alcohol at an early age in many deprived South African communities (Khosa et al., 2017). The research found that, out of every two teenagers, one has already experimented with drugs. Based on that, Khosa et.al. (2017) reveal that most young adults' deaths in Gauteng province were linked to illicit drug abuse. Common illicit drugs in South Africa include marijuana, cocaine, heroin, ecstasy and recently *nyaope*.

The drug has recently captured the attention of many researchers as it is a street drug regarded as deadlier than most and is cheap and easy to get hold of. A study conducted by Tshitangano and Tosin (2016) suggested that illicit drug use in South Africa is double the world average. On that note almost, fifteen percent of the population in South Africa suffers from drug dependence.

Existing literature points out that the South African Government has taken remarkable strides in formulating and implementing policies aimed at reducing drug abuse in the country (Khosa et al., 2017). These include The South African Drugs and Drug Trafficking Act (140/1992) and Prevention of and Treatment for Substance Abuse Act 70 of 2008 amongst others. Accordingly, the government also rolled out programs such as 'Ke Moja, I'm fine without drugs' in 2003 (Khosa et al., 2017). The programme was rolled out in primary and high schools as an intervention into drug abuse among teenagers.

One of the major objectives of the programme was to stop the supply and accessibility of drugs among the youth. On that note, the programme, employed young adults as coaches and mentors to the learners. They educated learners about the dangers of drug abuse and how to say 'No.' According to the authors this programme was successfully received by learners and other youth in surrounding communities. However, they also discovered that there were implementation disparities across the five regions it was instituted which negatively implemented on its success.

Some notable collaborations were also made between Government Departments such as the Department of Health and the Department of Education. For instance, the Department of Education recently designed a framework to abate drug use among high school learners and students in colleges and universities (Tshitangano & Tosin, 2016). Matuntuta (2014) applauds the judiciary system for classifying *nyaope* as an illicit drug with effect from 28th March 2014. This entails that an individual can be arrested if found in its possession and then be prosecuted and jailed.

3.6 Summary

This chapter discussed relevant literature. It started by giving an overview of illicit drug use. This was explained from the global, African and South African context. Globally, the literature indicated that illicit drug use is becoming one of the top challenges confronting policy makers. It was further noted that illicit drug use is more common among the youth than older people. Within the African context, it was found that youth in Africa are not immune to the world trend of illicit drug use. In South Africa, it was found out that illicit drug use is above the world average and extremely high. The most common illicit drugs in the country are marijuana and *nyaope*. The next chapter will discuss the theoretical framework guiding this study.

CHAPTER 4

RESEARCH METHODOLOGY

4.1 Introduction

This chapter aims to present the research methodology utilised in this study. The chapter discussed the research design adopted for this study. The chapter further outlines the sampling method, sample size, data collection and analysis, quality criteria and finally the ethical considerations used in the research.

4.2 Research design

This study adopted a qualitative research approach guided by a phenomenological, exploratory research design. A qualitative research approach is interested in understanding the experiences, feelings, and meanings directly from the participant (Hammarberg et al., 2016). The authors further note that a qualitative research approach is used to understand participant's beliefs, behaviours, and attitudes towards a phenomenon. In a similar vein, Denzin and Lincoln (2011) assert that qualitative research is interested in investigating deeper answers to meaning making and experiences from the original source. The qualitative research approach was deemed appropriate for this study because the researcher aimed to understand the self-reported behaviours of students who have used *nyaope*.

4.3 Sampling

4.3.1 Sampling method

Gentles et.al. (2015), define sampling as the act or process of selecting a representative part of a population to be studied. The researcher applied a non-probability sampling technique known as exponential non-discriminative snowball sampling.

This sampling method involves identifying an initial primary data source or participant who in turn helps the researcher identify more participants by nominating other potential primary data source to be used in the research as desired participants may be hard to locate. According to Browne (2005), this sampling method is ideal when the respondents are difficult to locate due to the sensitiveness of the topic under consideration. In this case, using *nyaope* was considered a sensitive topic and many people do not wish to be exposed that they use it. As a result, exponential non-discriminative snowball sampling assisted the researcher to minimise this challenge by allowing each participant to refer to another using pseudonyms.

Non-discriminative snowball sampling is based on referrals from the initial participant in order to generate additional participants. In applying the sampling method to this study, members of the sample group were recruited via a chain of referral where one student who smokes *nyaope* who is known to the researcher. According to Etikan et.al. (2016), exponential non-discriminative snowball sampling has several advantages to the researcher. These include time saving and less planning. Nevertheless, Etikan et.al. (2016) argue that since the members under investigation might be engaging in illegal activities, it might be difficult for the researcher to get the required information if one of the members blocks the circle. Furthermore, the study notes that this sampling method is prone to bias, hence, researchers should take great care when using this sampling technique.

4.3.2 Sample size

The researcher selected the most productive and helpful sample to answer the research questions, which was drawn from both undergraduate and postgraduate students within the University of Limpopo Turfloop Campus. The study had 6 participants. The participants were recruited until saturation was reached. According to Braun et.al. (2019), this is a point where each extra participant added can no longer bring new information.

The sample was deemed enough for the study following recommendations from existing studies such as Ando, Cousins and Young (2014). According to Ando et.al. (2014), a minimum of 6-12 participants can allow a researcher to reach saturation.

4.3.2.1 Inclusion criteria

All students who used *nyaope* and were registered students at the University.

4.3.2.2 Exclusion criteria

Students who used drugs (or not) other than *nyaope*.

4.4 Data collection

The researcher used a semi-structured interview guide for the purpose of gathering data through individual interviews for this qualitative study. Semi-structured interviews are usually ideal when the researcher intends to interview one person at a time about a particular topic (Adams, 2015). According to Adams (2015), semi-structured interviews provide the advantage of allowing the opportunity for asking additional questions (or probing) in interviews in order to clarify or further expand certain on issues which are generated by the participant during the interview.

This aids in generating reliable data that is useful in understanding a participant's experiences and self-reported behaviours which occur as a result of their social and academic experiences as well as any possible challenges they face. Semi-structured interviews allow participants to get involved and voice their views with honesty and transparency. Additionally, participants can discuss their perceptions as well as their interpretations of situations in terms of their *nyaope* use.

Nevertheless, semi-structured interviews can be tedious as it involves a lot of work, from preparing for the interview to handling the scripts provided in the interview. As a result, Adams (2015) suggested that when considering using semi-structured interviews, researchers should be well versed with its dynamics.

According to Clough and Nutbrown (2007), a researcher needs a set of certain skills to improve the effectiveness of semi-structured interviews. These include being an active listener, exhibiting high level of humility, ability to ask follow-up questions, ability to create rapport and build trust. In this study, the researcher created a relaxed atmosphere and the participants were able to open up to him. This made the participants to trust the researcher and the entire interview process. As such, the participants were free to express themselves freely which enhanced the quality of their answers.

The researcher further used an audio device supplemented with field notes (so as to allow non-verbal cues to be noted). This approach is supported by Tessier (2012), who argues that combining data collection tools is highly recommended to obtain quality responses from data collection. According to Crozier and Cassell (2016) audio recordings are rapidly becoming a common data collection tool among researchers especially in psychology studies.

The wide adoption and use thereof emanates from several advantages they present to the researcher as compared to other methods. A study by Monrouxe (2009) suggests that the major advantage associated with using audio recording is that there is minimal researcher intervention, hence, the participants are able to freely express themselves. This helps to uncover sensitive information and hard facts about the phenomenon, in this case, *nyaope* use. Another crucial advantage associated with audio recordings is that it allows the researcher to report accurately (Crozier & Cassell, 2016).

For instance, the researcher can play and listen to the audio recordings anytime when trying to extract themes that emerged during data collection. Tessier (2012) supports this by submitting that audio recordings makes analysis robust in that the researcher can easily note down, sighs, emotions and feelings from the tone of the participant. Other studies cite that audio recordings are fast and cost effective as compared to writing notes. This allows the researcher to interview a big number of participants on a short space of time. The cost effectiveness of audio recordings is explained in terms of cutting cost for transcribing (Tessier, 2012). It also eliminates the risk of data loss duration transcription in the case of field notes (Crichton & Kinash, 2008).

Audio recordings were used only with the participants' consent. The interviews took place in the Psychology Department (after hours) which allowed confidentiality. The researcher's supervisors were readily available to give direction to the researcher. Interviews were conducted in English as this is the medium of instruction at the University. The interviews lasted an hour, 10 minutes for building rapport and making the participant comfortable and 10 minutes at the end of the interview for de-briefing. A follow up session of 15 minutes also took place to allow the researcher to verify the transcripts of the data gleaned from the interviews. As indicated by Adams (2015), semi-structured interviews should be at least an hour to enable the researcher to get as much information as possible yet avoiding 'swamping' the participant with too much questions.

4.5 Data analysis

The researcher utilised Thematic content analysis (TCA) for data analysis. Thematic content analysis (TCA) is a qualitative method which is primarily employed to identify, analyse and report patterns or themes from data collected. A theme is defined as a combination of recurring common patterns of meanings from a data set (Braun et al., 2019).

On that account, Braun et.al. (2019) underscore that a theme merges related responses together into one meaningful item from which further analysis can be conducted. These are derived from textual data (Vaismoradi et al., 2016). According to these authors during TCA, the researcher has to be creative as extracting themes can be a tricky activity.

Thematic Content Analysis was performed through the process of coding in six phases which are familiarization with data, generating initial codes, searching for themes among codes, reviewing themes, defining, and naming themes as well as producing the final report (Vaismoradi et al., 2016). The researcher adopted the six phases of analysis proposed by Braun and Clarke (2006). Thematic Content Analysis (TCA) was used because the researcher wanted to extract themes from data provided by participants. The steps followed during TCA are outlined below.

4.5.1 Familiarisation with data

This step required the researcher to be fully immersed and actively engaged in the data by firstly transcribing the interactions, thoroughly reading the transcripts, and listening to the recordings as well as considering any observations recorded as field notes (Braun et al., 2019). One of the key purposes of this step is gain much knowledge from the new study area. Hence, the researcher needed to take personal notes which assisted him in taking note of the critical points in the data (Braun et al., 2019). The authors reiterate that at this point the researcher should have the research questions in mind to clearly understand the data. In this study, the researcher took a series of steps to familiarise himself with the data.

4.5.2 Generating initial codes

The second step was generating initial codes which are the features of the data that appear to be of significance and meaningful. Generating codes is concerned about extracting meaning from the data (Braun et al., 2019).

In this step, the researcher should be seriously engaged in the data than in the first step. Coding requires rigorous attention by the researcher as identifying texts that share similar meaning can be a challenging task (Braun et al., 2019). Coding helps to reduce the data from the huge volumes derived from the interviews.

When generating codes, a researcher can use either inductive or deductive orientations (Terry et al., 2017). According to these authors an inductive approach is when the researcher approaches the data without any preconceived idea or knowledge but derive meaning from the data itself. On the other hand, a deductive approach is when the researcher approaches the data with existing knowledge about the phenomenon.

4.5.3 Searching for themes among codes

The third step was searching for themes, this is concerned with initiation of the interpretive analysis of established codes and relevant data extracts are arranged according to primary themes. A researcher can promote coded data into themes if they tell a story about the data (Braun & Clarke, 2006). Another crucial aspect to consider when generating themes is the synchronisation of the data with the research questions. On that note, Braun and Clarke (2006) highlight the importance of thematic mapping to visually identify solid themes that can be considered for further analysis.

4.5.4 Reviewing themes

The fourth step was reviewing themes. This involves a deeper review of identified themes as data within themes should correlate in a meaningful manner in relation to the aims and objectives of the study. The most important step here is to compile all the codes under each primary theme to see how questions (Braun & Clarke, 2006) are in line with the objectives and the research. The researcher is advised to get rid of overlapping themes as they may affect the final results (Braun & Clarke, 2006).

4.5.5 Defining and naming themes

The fifth step was concerned with defining and naming themes which entails refining and defining the themes within the data. At this stage, the researcher should drop all weaker themes and remain with the ones which really tell a story about the data. Braun et al. (2019) assert that definition of themes should be well executed such that the researcher can capture the readers' attention towards reading the final analysis. Additionally, true meaning of data should naturally come out in each of the final themes constructed.

4.5.6 Producing the final report

Rigorous analysis was required to further enrich the themes which were already identified as well as provide names and descriptions of the themes which highlight each theme. According to Terry et.al. (2017), at this point the researcher should revisit the dataset and any other notes taken earlier to ensure that they are interwoven into the final analysis. Additionally, the researcher can also revisit the theme definition stage to ensure there is consistency throughout (Braun et al., 2019). Finally, results of the analysis will be presented in the form of a mini dissertation.

4.6 Quality criteria

Quality of research instruments and findings is one of the crucial aspects in qualitative research (Anney, 2014). According to Anney (2014), the quality criteria of trustworthiness of results in qualitative research can be traced from the work of Guba (1981) and later Wallendorf and Belk (1989). This study adopted elements of used to determine quality in qualitative research as recommended by (Elo et al., 2014). These are:

4.6.1 Credibility

In this study, the criteria for credibility concerned by establishing the confidence in which the results reflect the original version of the data provided by the participants and that that they were correctly interpreted (Anney, 2014). In most cases the participants have a strong position to critic the results based on the exact information they provided (Bitsch, 2005). According to Anney, “a qualitative researcher establishes rigour of the inquiry by adopting the following credibility strategies: prolonged and varied field experience, time sampling, reflexivity (field journal), triangulation, member checking, peer examination, interview technique, establishing authority of researcher and structural coherence” (p.278). In this study, the researcher ensured credibility by prolonging the time spent collecting data where the researcher successfully immersed himself in the context of the participants for six months. Additionally, the researcher also used triangulation. In this case, the researcher made use of different data collection instruments such as observations to critically check body language, notes taking and audio recording. This helped the researcher to report the exact things said by the participants.

4.6.2 Transferability

Transferability may be understood as the degree to which the results of qualitative study can be generalised or transferred to other contexts (Anney, 2014). Based on a qualitative perspective employed in this study, transferability is primarily the responsibility of the researcher. The researcher ensured transferability by accurately describing the research context and the assumptions that were central to the research (Elo et al., 2014). Furthermore, the researcher used thick descriptions by laying out the step-by-step process used from data collection to data analysis. According to Anney (2014), this can assist other researchers to easily transfer the findings of the current study to other contexts.

4.6.3 Dependability

According to Bitsch (2005), this concept can be explained as the constancy of data over time and conditions. Dependability may be associated to reliability in quantitative studies, in a sense that dependability is an assessment of the quality of the cohesive processes of data collection and data analysis. Anney (2014) states that dependability can be achieved by using one of the following strategies: use of audit trails, a code-recode strategy, stepwise replication, triangulation and peer examination. I this study, the researcher ensured dependability by using peer examination. Using this strategy, the researcher discussed the research process and how the analysis was conducted with neutral masters and doctoral students. This helped the researcher to obtain constructive feedback and areas for improvement.

4.6.4 Confirmability

Based on a study by Anney (2014), conformability is a measure of the extent to which results can be confirmed by other studies. Fundamentally in the current study, the researcher took essential precautions to report findings which were consistent with the participant's accounts instead of the researcher's wishes thus ensuring that objectivity was maintained.

4.7 Ethical considerations

4.7.1 Permission to conduct the study

This research was conducted through the Department of Psychology and the Faculty of Humanities. All stakeholder permission was obtained. These included the Turfloop Research and Ethics Committee (TREC) for ethical clearance (TREC/11/2019:PG) and Gatekeeper permission through the Office of the Registrar on the 20.9.2018.

4.7.2 Informed consent

Wiles et.al. (2006) state that informed consent is a voluntary agreement to participate in research. Informed consent in this study did not merely entail a form that was signed but was a process. On that note, the researcher informed the participants on the purpose of the study which gave them an understanding of the research and possible implications. Thereafter, the participants were invited to participate in the study.

4.7.3 Anonymity

Anonymity can be defined or better known as the deliberate action of leaving out or not giving someone's name or identity so it can remain unknown. In this study, anonymity was ensured by withholding identifying information to protect participants but also to avoid bias during the manipulation of data. The use pseudonyms after taking part in the interview sessions were used and participants were referred to as Participant 1, Participant 2, and so on following recommendations by Wiles at.al. (2006).

4.7.4 Confidentiality

According to Wiles et.al. (2006), confidentiality concerns the protection of personally identifiable and sensitive information from unauthorised disclosure. In the current study respect for the participant's privacy and confidentiality was highly prioritised as they are requirements for maintaining trust with participants. The participant's information was kept confidential. Participants were also informed that their confidentiality would be maintained throughout the study. For instance, the researcher's supervisor or a counsellor at the University could be informed of a participant's name if he or she became distressed and needed de-briefing (however, this would also have been confidential).

4.7.5 Beneficence

This may be understood that the wellbeing of the research participant is an objective of any study or clinical trial (Peiper & Thomson, 2016). Participants were informed that their participation was voluntary and thus shall not yield any financial remuneration.

4.7.6 Protection from harm

The participants were assured that no physical or psychological harm will occur to them during interviews (Peiper & Thomson, 2016). However, if participation in this research caused emotional harm, the participants were referred to a Psychologist at the Student Counselling and Development centre at the University of Limpopo (Turfloop Campus).

Ethically, the research became a 'minefield' as the researcher wanted to get help for the participants. It was very difficult as they made it clear that they would not participate in the research if their confidentiality was broken. They were all given names of support structures both on and off campus. They were also provided with referral letters to a psychologist who had agree to help any participants who felt they needed it.

The researcher tried to provide a safe listening space for the participants and was de-briefed by his supervisors. None of the participants had over-dosed or tried to commit suicide and did not appear at risk (at the time) of impending harm to self. As a result, the researcher followed ethical guidelines and did not try and get 'unwanted' help for any participants. To make it clear they were all offered help and given names and places of support over, and beyond, the time the research took place. This is discussed further under 'Research reflexion,' at the end of the study.

4.7.7 Voluntary participation

In addition to signing the consent form, the participants were given full information regarding the research informing them of their rights, the purpose of the study, the potential

risks as well as benefits of participation and that should the participants wish to withdraw from the study, they could do so anytime as participation was voluntary (Peiper & Thomson, 2016).

4.8 Summary

This chapter focused on discussing the research methodology adopted for this study. The study adopted a qualitative research methodology. The sample consisted of 6 university students who used *nyaope*. Data collection instruments consisted of semi-structured interviews where each participant was taken through a series of questions. Thematic content analysis was used to analyse data. This led to the emergence of themes. A quality criterion was also adhered to in this research by ensuring that the results were credible, transferable, dependable, and confirmable. Lastly, the chapter also discussed the ethical considerations followed by the researcher. The following chapter will present the study findings.

CHAPTER 5

PRESENTATION OF RESEARCH FINDINGS

5.1 Introduction

Chapter 5 provides the research findings. The researcher used TCA identify responses which were grouped into meaningful themes. The first section presents the demographic characteristics, in a tabular format, of participants taking part in the research. Section 2 presents the 4 themes and 6 sub-themes emerging from the data in a tabular format. Section 3 presents the themes and sub-themes by title with a brief analysis related to the theoretical underpinning of the research, the HBM. Section 4 presents a more detailed discussion of the research findings in terms of the HBM and relevant literature.

The participants answers to questions tended to be sparse and the researcher had to 'probe' to ensure that more holistic answers were given. This is likely because of their drug dependence and effect on their cognitions. However, it may be that although the researcher did his best to build rapport with them, they may not have fully trusted him. Responses were very similar which could be a natural occurrence but could suggest that participants discussed their interviews with one and other as they did not take place on the same day.

5.2 SECTION 1. Demographics

The following table (1) gives the demographic characteristics of the 6 male participants who were all registered students at the University of Limpopo (Turfloop Campus). They were all male as no female *nyaope* users were identified or came forward to participate in the research.

Table 1: Demographic information of participants

Participants	Gender	Age in years	Ethnicity	Programme of study	Level of study (years)
Participant 1	Male	22	Tswana	Bachelor of Education	3
Participant 2	Male	25	Tswana	BA Media studies	4
Participant 3	Male	23	Venda	Bachelor of Science in Agriculture	2
Participant 4	Male	24	Zulu	Bachelor of Arts in Communication studies	3
Participant 5	Male	21	Pedi	Bachelor of Science in Computer Science	2
Participant 6	Male	23	Pedi	Bachelor of Pharmacy	2

5.3 SECTION 2: Themes emerging out of the data in tabular format

Emerging themes are presented in table 2 followed with an explanation which refers to the literature and the HBM. The responses were similar for all participants thus not all are given, to avoid repetition.

Table 2: Emergent themes

Theme	Name of theme	Sub-themes
1.	**Causes of *nyaope* use: feeling good** This general theme reports why participants stated that they started using *nyaope*.	**Sub theme 1.1: Peer Pressure** – participants stated they wanted to fit in so started taking nyaope. **Sub theme 1.2: Academic pressure** – the overwhelming amount of academic work was reported as a reason for taking *nyaope* (to relieve stress). **Sub-theme 1.3: Decline in academic performance** – the academic work of participants deteriorated because of using *nyaope*.
2.	**High intensity drug use** – using *nyaope* 1 to 3 times daily.	
3.	**Decline in mental and psychological wellbeing** – participants self-report on their deteriorating wellbeing.	**Sub-theme 3.1: Isolation from others –** because of *nyaope* use participants end up being isolated from family, friends, and peers. **Sub-theme 3.2: Discrimination by peers**

		and others – participants perceptions of discrimination because of *nyaope* use.
		Sub-theme 3.3: Criminal activities – participation in crime because of the need for money to buy *nyaope*.
4.	**Intentions to stop smoking *nyaope*** – self-reported intentions of participants to stop using the drug.	

Table 2 shows the themes and sub-themes which emerged naturally out of the data. Four major themes and 6 sub-themes are presented.

5.4 SECTION 3: Presentation of themes and analysis using the HBM

In this section themes that arose naturally out of the data using TCA are presented with an explanation using the HBM and with reference, where relevant, to reviewed literature. Appropriate responses from participants are provided which underpin the theme.

5.4 Theme 1: Causes of drug (*nyaope*) use – Feeling good

The causes of *nyaope* abuse emerged as one of the themes from the interviews. It was critical to unpack the causes of drug use so that the researcher could understand why participants used illicit drugs to understand their reported experiences and behaviour changes. The participants indicated that they perceived that they used *nyaope* because of peer and academic pressure.

None of the participants took any responsibility this suggests they lack self-insight into their internal motivations for using the drug. They also reported taking it because it made them feel good. The following responses support the overall theme.

"The high [from nyaope] is like weed but then it lasts longer. I started trying this thing and indeed it was good. I felt good about it and that next morning I went and got another one and that's how I started. Yes, that's basically how I started using this drug. ***"Participant 1***

"I went to a part with friends and we came across this thing called nyaope. They said it was good….and it was good." **Participant 5**

In terms of the HBM these responses suggest participants have a lack of self-efficacy (self-confidence). Rosenstock et.al. (1988) suggest that if an individual does not realise that behaviour can be changed to more healthy behaviours it is likely that they are not able to take responsibility for their actions which suggests poor self-image and self-efficacy. Self-efficacy is a strong will by an individual that they are responsible for their own life

5.4.1 Theme 1.1: Peer pressure

In terms of peer pressure, most participants indicated that they first started using illicit drugs because of pressure from their friends. They explained that this was because they wanted to fit into a peer group thus decided to use *nyaope*. This theme is underpinned by the following statements.

"I started using drugs back in high school and I think it was mostly because of my peers. You know, I just wanted to find common ground with them. If I look back, I will say I wasn't very smart and to chill with the smart guys I resorted to using nyaope to fit in. I also did not think it would be a problem." **Participant 1**

"I started using because of my friends, peer pressure you know. I just went to ask for a taste, just to taste this thing and then I went for it, after that I got hooked." ***Participant 5***

"We started [friends] by small things like smoking cigarettes in primary school. As time went on, and we went to high school, we started smoking weed. Then this friend of mine took me to a party and they were smoking this thing whonga (nyaope). It was good, from then on I used it." ***Participant 6***

In terms of the HBM participants did not appear to think that using *nyaope* would be problematic in the long term. For instance, participant 1 did not see it as a problem and participant 6 stated that he felt good about it. This means that, at this point in their illicit drug use, they did not perceive the severity of it and did not understand the long-term negative health consequences, such as decline in cognitions associated with illicit drug use (Meier et al., 2012) so did not see a reason for changing their behaviour (Rosenstock, 1974).

5.4.2 Sub-theme 1.2: Academic stress

Academic stress was also reported as one of the causes of the participants *nyaope* use. The participants stated that they find academic life stressful and that they used the drug to cope with this. These responses support the sub-theme.

"*Research bro research. It was beating me…even now it is still beating me. It's difficult and I have been failing the module…. it's giving me stress [I use the drug to cope]."* ***Participant 2***

"*Yes, I have experienced it, it is still happening. I feel stressed because of the work in my course [academic stress]. After smoking [nyaope] I just sleep I don't have time for books and I'm falling behind in my classes and assignment."* ***Participant 4***

The participants do not realise the consequences (severity) of continued drug use so continue to use *nyaope* as a coping mechanism. This is supported by Monyakane (2018) who reports that students take drugs to deal with stress which is fundamentally a negative coping mechanism. The author states that negative coping mechanisms are basically unhealthy coping strategies which in the long term cause more stress thus exacerbating the problem.

5.4.3 Sub-theme 1.3: Decline in academic performance

The participants indicated that they experienced a decline in their academic performance due to their feelings of stress and using *nyaope* as a coping mechanism. The participants indicated that they often missed classes which negatively affected their grades. Responses which support this sub-theme are as follows.

> *"After smoking I just sleep, I don't have time to study. I have missed tests and don't attend class and bad like that"* ***Participant 2***

> *"I would say when I am sober [not using nyaope] I find it easier to study. When I use nyaope I guess it consumes too much of my time. You see those are the difficulties I find."* ***Participant 3***

> *"When I focus on drugs, I lose focus on other things. I don't know what to do sometimes but I must make sure I get it [nyaope]. Smoking it doesn't work with academic things they get neglected."* ***Participant 6***

Substance abuse led to the decline in academic performance of participants in this research. This is supported by research undertaken by Mokwena and Morojole (2014). In terms of the HBM participants do not have self-efficacy which would enable them to recognise, and do something about, their poor health behaviours (Reisi et al., 2014). As they do not have self-insight, they do not perceive their susceptibility to their negative life choices.

5.5 Theme 2: High intensity drug use

The participants responses suggested that the students who were interviewed for the research were seriously dependent on *nyaope* and were frequent, heavy users. Their usage averaged from daily consumption of the drug to using it 3 times a day or more. The participants further indicated that they would sacrifice everything (sell their belongings and use their bursaries) to make sure that they had enough *nyaope* for the day. Below are some of the responses.

> "*You see if I get four, yes four bags early in the morning I use one. Then I go to sleep and I wake up around twelve and have another bag – after I eat something. I go back to sleep again and wake up at five and then eat something else and have another bag. I sleep until midnight and then go out – I use another one then. Sometimes I get another bag and use it then. The bags are small – mini-bags. I have difficulty sleeping if I don't have nyaope.*" ***Participant 2***

> *"I would say that I use it [nyaope] four to five times a day – sometimes more than that [silence]."* ***Participant 5***

> *"Now you see it is all I live for; food is not as important as this drug. I usually can get one but if I am lucky, I can get 3 bags a day if I manage to hustle enough to get money cos these things [nyaope] are expensive. Sometimes once a day if I have no money on average, I take it two to three times a day. I get sick if I don't get it."* ***Participant 6***

This indicates that participants have substance dependence as they indicate a continued pattern of use and participant 6 reports that he gets sick if he does not get nyaope, which is consistent with withdrawal symptoms (DSM-5, 2013). This theme relates to the HBM as a perceived barrier to seeking help or changing negative health behaviours.

If participants are unable to understand that smoking *nyaope* can lead to poor health outcomes, even death then they are unable and unwilling to change that behaviour (Glanz et al., 2008).

5.6 Theme 3: Decline in physical and mental wellbeing

All participants reported that their physical and mental wellbeing was deteriorating since they started using *nyaope*. The participants indicated that they experienced weight loss, bad skin (acne), changes in skin colour and always feeling unable to cope (unless using *nyaope*). They also found that they felt quite depressed when the drug was not in (or wearing off) their system.

> *"Damn my lips bro, they are pink, they are pink they changed colour after I started using nyaope."* ***Participant 2***

> *"I have been losing weight, my clothes don't fit the same way. It's [nyaope] spoiling my appetite and I'm not as physically fit as I used to be. I sleep a lot."* ***Participant 3***

> *"I have started to change physically my skin started to darken and my eyes get swollen…. it's bad and tiring [depression]. "Since I started using nyaope my life has changed completely sometimes I don't even recognise who I am because of this. It's not good."* ***Participant 5***

> "Y*ou know, before you can do any other thing you just have to satisfy yourself [by using nyaope] so maybe I think it has a psychological impact because now you think you are useless without being high. "****Participant 1***

> *"Yes, psychologically, yah. I can't concentrate and I can't study I sleep after smoking. I can't think like I used to; I feel useless."* ***Participant 4***

"If I had to compare the type of person I was before I started drugs and now, there is a big difference. It is difficult for me to count small things you know, is difficult for me to sleep at night, is difficult for me to think clearly you know, especially when I'm not high. It's definitely a problem so, ah you see my brother, it's difficult but I choose to ignore it like all other drug users do because if you focus on these things then it means you will live a stressful life. I smoke drugs because I want to be happy. I want to feel stress free so that I don't feel psychologically overwhelmed." ***Participant 6***

The participants reported symptoms which are consistent with long-term drug use and are both physical and psychological (DSM-5, 2013). The HBM relates this to perceived barriers which unless recognised by participants as preventing them from stopping drug use will continue the cycle. Mental health is recognised by being tired and always sleeping (for instance, participants 3 & 5). This means that participants are unlikely to find cues for action, either internal or external, which would trigger them into adopting positive health promoting behaviours (Carpenter, 2010). Participant 6 explains the situation that the *nyaope* users in the research find themselves in basically describing how the drug is used as a coping mechanism.

5.6.1 Sub-theme 3.1: Isolation from others

Participants were often high on *nyaope* and, as a result, did not want to be around others, or others rejected them. This led to isolation which also meant that peer and family relationships broke down as participants did not interact with them on a regular basis. Responses supporting this theme are as follows.

"I started not attending lectures so most of the time I isolate myself. I want my own space so I can smoke in peace. I don't answer the door to people so I can be alone to use nyaope." ***Participant 2***

"I am not the same social person I used to be I do not interact with people much. I can't be bothered with them. I want to do my own thing." ***Participant 3***

"I have lost relationships that I can never build again. I have burned a lot of bridges. There are a lot of people that I don't talk to now, who I wish I could get a second chance to talk to. My family aren't happy with me [they suspect I use drugs]. This makes me sad." ***Participant 6***

"My brother, eish it's tough because even in your friends and family, they start to reject you, so you are alone." ***Participant 1***

Findings revealed that the participants experienced deteriorating relationships with other people such as former friends and family members emanating from their use of *nyaope*. This sub-theme supports the overall theme of decline in physical and mental wellbeing. Responses indicate that isolation is likely to lead to long-term problems in relationships because of the use of *nyaope*. This is likely to lead to depression in participants. This indicates that isolation is a perceived barrier recognised by some of the participants but not yet a cue to action that, is they do not yet have the insight to change their negative behaviours and adopt health promoting behaviours (Glanz et al.,2008).

5.6.2 Sub-theme 3.2: Discrimination by peers and others

Participants also reported that they are discriminated against by people around them for using *nyaope* for instance, peers, friends, and family. In terms of discrimination participants admitted that they had faced countless incidences from people around them and the community at large. It also emerged that *nyaope* users are viewed as social outcasts. Participants indicated that discrimination usually occurred in malls, class and even at home where parents search them for their drug of choice. Responses underpinning this theme are noted as follows.

"Yes, you do experience discrimination because people just look at you in a certain way and you know that they think you are a bad person cos you use drugs. You know when I walk by people put away their phones and their wallets and watch to make sure I pass by. I would say that this is discriminatory because of the way I look when I take nyaope." ***Participant 1***

"Yes, because people judge you and if you show that you are craving the stuff, they don't want anything to do with you. Then they ask that, 'What is going on with you…have you been bewitched?" ***Participant 3***

"I have experienced discrimination if I can put it that way. When I walk into the shop and I want to buy something…. you know those spaza shops, they give you space and then because you smoke this thing and you don't shower and can smell nobody wants to serve you or be next to you. I think that is discrimination on its own and sometimes when you walk into big shops like Shoprite the security guards follow you around and then they search you. I think that is a lot of discrimination." ***Participant 6***

The responses reveal that the participants report that they are discriminated against in public because of their unkempt appearance. Their friends, peers and family also followed this pattern of behaviour which is supported in research by Motsoeneng (2018). The author noted that that *nyaope* destroys family and other relationships which again are supported in an investigation by Schultz and Alpaslan (2016). Social relationships are also destroyed by the appearance and behaviour of *nyaope* users (Groenewald & Bhana, 2016). In terms of the HBM participants lack self-efficacy and do not have insight into their behaviours which results in an inability to recognised the perceived benefits of stopping drug use (Glanz et al., 2008). In this case improving family and peer relationships.

5.6.3 Sub-theme 3.3: Criminal activities

In the previous paragraph participants felt they were discriminated against for using *nyaope*. However, using the drug is expensive and participants reported resorting to petty theft to 'feed' their drug habit. This suggests that their families and friends as well as shop—owners avoid them because the fear their criminality. This is particularly problematic as petty theft often leads to more serious theft and problems with the law. Participants reported the following in support of this sub-theme.

"F*inancially I would say that I am poor, most of my money just goes on nyaope. I need to have money for the drug, after that I want to buy some more, so I need more money spend on nyaope. Sometimes I steal money or things to sell, so I can buy the stuff. I will steal from anyone [Silence]."* ***Participant 1***

"Sometimes when I need to satisfy that craving, I have to go the extra mile and end up stealing things. This means that I create enemies wherever I go you know. Some of my friends who smoke nyaope have been arrested and they end up in jail. It is not a good experience." ***Participant 5***

"I don't mind jumping into other people's yards. I just to get a piece of metal from there so that I can go sell it. I think I take risks, but I have to." ***Participant 6***

The participants indicated that they embarked on stealing so that they can have money to buy *nyaope*. It seems that participants do not perceive their susceptibility to either law-breaking and/or the negative influence of *nyaope* on their behaviours. They are highly susceptible to health and problems from the law if they continue in these endeavours however; the seriousness of these problems will not be able to be addressed until they have the insight to change their negative behaviours (Rosenstock (1974).

5.7 Theme 4: Intentions to stop smoking *nyaope*

Half of the sample had the intention to stop smoking *nyaope*. Three participants appeared to regret their behaviours however, they stated that addiction is a hard thing to beat and they needed to seek help. Their regret was informed by issues such as losing friends, family members, engaging in criminal activities and living in a drug induced haze. Responses were similar and are presented as follows.

> *"Yes, I wish I could stop this thing, but you know it's difficult, it's very difficult to do [tackle the addiction]. It's very deep, it goes into your veins it goes into your heart and I think even to your soul, I need help so if someone out there is listening."* ***Participant 3***

> *"What you need to do is just make sure that you stay away from this thing [nyaope] because it's not here to make you a better person. It's just here to ruin you and leave you alone in this world. I hope someone will hear that message, one day I will stop and that's all I have to say."* ***Participant 6***

> *"I would like for them [other students] to avoid even starting this thing [nyaope use] because once you are in this thing there is no going out. I want to get out of using this thing but I'm not sure I can. I will try."* ***Participant 4***

Half of the participants (3) reported to wanting to stop or 'get out of' using *nyaope* but realise that addiction is hard to reverse, and that help is needed. The interviews conducted by the researcher which received this reaction may be their cue to action. In other words, the cue they needed to seek help and change their self-defeating health behaviours. Carpenter (2010) note that these cues can be internal or external, in this case they would be considered external (the research itself). However, although the researcher did provide help in this regard and followed up the participants did not take up the offers of help.

Nonetheless, they have started to have some self-insight into how self-defeating their behaviours are. The researcher kept in touch will all participants until they no longer answered his phone-calls. It is hoped that they eventually found the self-efficacy to find the help they needed.

5.8 SECTION 4: Discussion and summary of findings

The findings of the study are discussed in relation to the HBM. The HBM is used widely to understand and explain behaviours associated with the health behaviour under scrutiny (Deskins et al., 2006). According to Huang et.al. (2016), although the model was developed in the 1950s it continues to be a useful tool in predicting and/or explaining health behaviours. It uses six factors, which are used to understand, explain, and predict behavioural change (or not) among individuals namely, perceived susceptibility, perceived severity, perceived benefits, perceived barriers, cues to action and self-efficacy. The findings of the research are also discussed in relation to the reviewed literature for the study.

The participants indicated that they saw themselves in the drug abuse trajectory because of peer pressure and stress from academic pressure at the university. Regarding peer pressure, most participants indicated that they got hooked up on *nyaope* because of pressure from their friends. They wanted to fit into a group which later made them to be addicts. The findings reported in this study are supported by existing findings.

For instance, Van Zyl (2013) reported that peer pressure is one of the main factors facilitating drug use in South African universities. Another study by Mohasoa and Fourie (2012) underpinned this finding as they reported that peer pressure is related to drug use. Various concepts in the HBM also reinforce this finding for instance, the participants lack self-efficacy thus takes the drug to boost their confidence unfortunately this results in long-

term, to addiction. Negative or self-defeating behaviours are thus likely to continue (Rosenstock et al., 1988).

Academic stress also emerged as, what participants perceived, caused them to smoke *nyaope*. They use drugs as a coping mechanism (Monyakane, 2018) which has exactly the opposite effect to what they desire. At first, they may ‘feel good’ but this is very short term. Instead of being able to cope chronic use of *nyaope* renders them unable to cope at all and they miss classes, sleep for long periods of time, have difficulty concentrating and report symptomology which is consistent with depression.

This results in poor academic performance which is likely to end up with them dropping out of their courses (Mabokela, 2018; Mokwena & Morojole, 2014; Tshitangano & Tosin, 2016). The participant’s behaviours indicate that they are not aware they are susceptible to all the negative consequences that drug dependency brings although three of the sample did report they were going to stop using. At the time of the research, and later, although they were offered help, they did not take it up. It is likely, these participants were saying what they thought the researcher wanted to hear and/or their drug dependency was so entrenched they were unable to take up the ‘cue to action,’ which was external (Carpenter, 2010). It is very likely that both internal and external cues to action are required, for those who are substance dependent, for them to change negative health behaviours. Their dependence, they used between 1 and 3 or more packets of *nyaope* a day, is essentially a barrier to them being able to see any perceived benefits in changing their behaviour. This underpins studies that indicate that substance dependence is high and difficult to stop (Peltzer & Phaswana-Mafuya, 2018; Van Heerden et al., 2009).

Participants reported that relationships with family, friends and peer suffered because of their *nyaope* use.

They did not have the insight to understand that the so-called discrimination that they perceived was caused by their negative behaviours such as not washing every day thus looking unkempt and stealing for their next ‘fix’.

Chronic drug dependence affects users’ cognitions thus they do not have the self-insight and self-efficacy to comprehend that their actions (behaviours) have very negative consequences (Manu & Ntsaba, 2016). In this case being estranged from their loved ones and peers. This inevitably leads to isolation, which participants reported. Fundamentally, they want to be ‘left alone’ so they can get their next fix but also are ‘sad’ about being isolated. These findings underpin previous research by (Mokwena & Huma, 2014).

Inevitably the participants health and wellbeing both psychological and physiological, suffered from their *nyaope* use. Physical symptoms noted in this research were pigmentation changes in the skin and eyes as well as extreme tiredness. The latter is likely an indicator of depression. It must be noted that none of the participants reported suicidality. These findings support other research on *nyaope* which reported various health problems associated with its use (Matuntuta, 2014). This is a cue to action to change negative health behaviours (Carpenter, 2010) as participants perceived these changes as problematic thus might consider stopping (Glanz et al., 2008) the use of *nyaope.* In this research these participants did not have the self-efficacy to perceive the benefits of stopping *nyaope* use as their addiction was a barrier to them taking the first steps in trying to conquer their drug dependence. The responses that participants made to questions did not indicate that they were aware of all the negative implications of their substance dependence as they lacked insight. However, they did note that they could ‘not think’ as well as they had before they started using heavily which, although a cue to action to change behaviour, was negated by their dependence (Steyl & Phillips, 2011).

In conclusion, the findings revealed that the participant's use of *nyaope* had a major negative impact on their day-to-day activities and general wellbeing. They had little or no insight into their drug abuse and did not seem aware of the negative implications of their *nyaope* use. They had poor relationships with others and were so dependent on the drug that they would steal to get money for their next 'fix.' They had no-insight into their destructive behaviour(s) and were unable to take up any external or internal cues to action which might result in them getting the help they needed. They were able to relate their experiences to the researcher but were not able to show understanding and insight into them. *Nyaope* is a dangerous drug and, because it is easily available and cheap, becoming used more and more by all elements of the youth in South Africa, which includes students.

5.9 Study strengths and limitations

The research strengths and weakness are given for the study.

5.9.1 Study strengths

1. The investigation used a qualitative approach and phenomenological research design which is consistent with research into subjective understandings of phenomenon.
2. Quality criteria ensured that the research is replicable.
3. The theoretical underpinning namely the HBM has been utilised in much research to explain and/or understand behaviours related to health phenomenon.

5.9.2 Study limitations

1. The study was small and qualitative thus results could not be generalised.
2. The sample was 'snowball' in nature and only males came forward thus both genders are not represented.

3. Ethically, the research could be criticised as the researcher did not report participant's nyaope use to relevant persons at the University. It was determined they were not suicidal, and they were given during, and after the research took place, the names and numbers of relevant persons should they want to seek help.

5.10 Recommendations arising out of the study

1. A broader more holistic mixed methods study be undertaken to find out how widespread substance use and abuse is on the campus.
2. The inclusion of female participants is highly recommended in future studies that are of this nature.
3. Interventions should begin at first year with workshops on drug use and abuse being made mandatory. Different media should be used for instance, as well as face-to-face workshops, Facebook, and Twitter. The use of fliers with information about where to get help and the dangers of drug use and abuse should be handed out twice yearly.
4. Staff should be made aware of how students who use drugs behave and have the necessary referral numbers. Workshops, for staff on drug use and abuse, should also take place.
5. The Student Representative Council (SRC) should be involved in all interventions pertaining to drug use and abuse.
6. The findings of this study are useful to aid in informing policy and interventions at the University. They may also help psychologists who work with drug abusers.

It must be noted that a written report on the findings of the study was provided to University management.

5.11 Researcher reflection

I found this research very challenging and difficult both academically and emotionally. I did not have exposure to people who were drug dependent before I embarked

on the study. I wanted to get them help but realised that this must come from them not me. Watching peers engage in such self-defeating and dangerous behaviour was hard. I also had to ensure that I remained objective and not be judgemental. I battled with the ethics of the research and, at one point, wanted to take my knowledge about the users to people who could help them on the campus.

However, when I was de-briefed by my supervisors, I realised this was about me feeling better about myself and not really about helping the participants because, as stated, until they want help (or become ill) and ask for it, they will not change their behaviours. Forcing addicts against their will wouldn't have had any lasting positive behaviour change.

I have learnt that doing research like this is sensitive in nature and impacts not only on participants but on me. My supervisors were able to discuss aspects of the research with me, as I needed, which kept me grounded. The area needs much more research particularly at tertiary institutions to stop students 'falling through the cracks' in the system. I prepared a report for the University and the SRC and it is hoped that they will follow up with interventions. I am also in the process of writing a journal article, with the help of my supervisors, which I hope will bring the dangers of *nyaope* use to a wider audience.

6. REFERENCES

Adams, W. C. (2015, August n.d.). *Conducting semi-structured interviews*. *Research Gate.* https://www.researchgate.net/.../301738442_Conducting_Semi-S

Adeyemo, F. O., Ohaeri, B., Pat, U. O., & Ogodo, O. (2017). Prevalence of drug abuse amongst university students in Benin City, Nigeria. *Public Health Research, 6*(2), 31-37, DOI: 10.3923/j.phr.20160602.01

Akwene, G. C. (2019). Understanding the influence of substance use on academic performance. *International Journal of Science and Research, 8*(1), 382-386. Copyright 2019 by the authors. Permission not sought.

Amadi, E. C., & Akpelu, G. O. (2018). Drug abuse and academic performance of secondary school students in Emohua local government area of Rivers State. *International Journal of Innovative Psychology & Social Development, 6*(1), 21-26. Copyright 2018 by the authors. Permission not sought.

Ando, H., Cousins, R., & Young, C. (2014). Achieving saturation in thematic analysis: development and refinement of a codebook. *Comprehensive Psychology, 3,* https://doi.org/10.2466%2F03.CP.3

Anney, V. N. (2014). Ensuring the quality of the findings of qualitative research: looking at trustworthiness criteria. *Journal of Emerging Trends in Educational Research and Policy Studies, 5*(2), 272-281. Copyright 2014 by the authors. Permission not sought.

Becker, M. H., & Maiman, L. A. (1975). Socio-behavioral determinants of compliance with health and medical care recommendations. *Medical Care,* p. 10-24, doi: 10.1097/00005650-197501000-00002

Braun, V., & Clark, V. (2006). Using thematic analysis in psychology. *Qualitative research in Psychology,* 3(2), 77-101, http://dx.doi.org/10.1191/1478088706qp063oa

Browne, K. (2005). Snowball sampling: using social networks to research non heterosexual women. *International Journal of Social Research Methodology, 8(*1), 47-60, https://doi.org/10.1080/1364557032000081663

Carpenter, C. J. (2010). A meta-analysis of the effectiveness of health belief model variables in predicting behavior. *Health Communication, 25*(8), 661-669, https://doi.org/10.1080/10410236.2010.521906

Chukwu, E. O., Pius, V. T., Fiase, T. M., Haruna, H., Terkuma, C., & Achukwu, C. E. (2017). Effects of substance/drug abuse on the academic achievement of secondary school Ssudents in Mkar Metropolis, Gboko, Benue State. *International Journal of Psychological and Brain Sciences, 2*(2), 40 -45. Copyright 2017 the authors. Permission not sought.

Cohen, L., Manion, L., & Morrison, K., (2007). *Research Methods in Education (6th ed.).* Routledge/Taylor & Francis Group.

Crichton, S., & Kinash, S. (2008). *V*irtual ethnography: interactive interviewing online as method. *Canadian Journal of Learning and Technology, 29*(2), 1-8. Copyright 2007 by the authors. Permission not sought.

Crozier, S. E. & Cassell, C. M. (2016). Methodological considerations in the use of audio diaries in work psychology: Adding to the qualitative toolkit. *Journal of Occupational and Organizational Psychology, 89*(2), 396-419, https://doi.org/10.1111/joop.12132

Davis, G. P., & Steslow, K. (2014). HIV medications as drugs of abuse. *Current Addiction Reports, 1(*3), 214-219, https://doi.org/10.1007/s40429-014-0022-y

Degenhardt, L., Charlson, F., Ferrari, A., Santomauro, D., Erskine, H., Mantilla-Herrara, A., & Rehm, J. (2018). The global burden of disease attributable to alcohol and drug use in 195 countries and territories, 1990–2016: a systematic analysis for the global burden of disease study 2016. *The Lancet Psychiatry, 5*(12), 987-1012, doi: 10.1016/S2215-0366(18)30337-7

Denzin, N. K., & Lincoln, Y. S. (Eds.). (2011). *The Sage Handbook of Qualitative Research*. Sage.

Ephraim, A. (2014, July 03). Nyaope a Deadly and Addictive Mix. *Mail and Guardian*. https://mg.co.za/article/2014-07-03-hook-line-and-sinker-thats-nyaope/

Etikan, I., Alkassim, R., & Abubakar, S. (2016). Comparison of snowball sampling and sequential sampling technique. *Biometrics and Biostatistics International Journal, 3*(1), 1-2, https://doi.org/10.15406/BBIJ.2016.03.00055

Fernandes, L., & Mokwena, K.E. (2016). The role of locus of control in *nyaope* addiction treatment. *South African Family Practice, 58*(4), 153-157, https://doi.org/10.1080/20786190.2016.1223794

Friis, K., Østergaard, J., Reese, S., & Lasgaard, M. (2017). Young people's attitudes towards illicit drugs: a population-based study. *Scandinavian Journal of Public Health, 45*(8), 765-772, doi: 10.1177/1403494817724981

Gazibara, T., Milic, M., Parlic, M., Stevanovic, J., Lazic, D., Maric, G. & Pekmezovic, T. (2018). Illicit drug use and academia in North Kosovo: prevalence, patterns, predictors, and health-related quality of life. *PLoS one, 13*(7), 1-12, https://doi.org/10.1371/journal.pone.0199921

Ghuman, S., Meyer-Weitz, A., & Knight, S. (2012). Prevalence patterns and predictors of alcohol use and abuse among secondary school students in southern KwaZulu-Natal, South Africa: demographic factors and the influence of parents and peers. *South African Family Practice, 54*(2), 132-138, https://doi.org/10.1080/20786204.2012.10874192

Glanz, K., Rimer, B. K., & Viswanath, K. (Eds.). (2008). *Health Behavior and Health Education: Theory, Research, and Practice*. John Wiley & Sons.

Grelotti, D. J., Closson, E. F., Smit, J. A., Mabude, Z., Matthews, L. T., Safren, S. A., & Mimiaga, M. J. (2014). Whonga: potential recreational use of HIV antiretroviral medication in South Africa*. AIDS and Behavior, 18*(3), 511-518, https://dx.doi.org/10.1007%2Fs10461-013-0575-0

Groenewald, C., & Bhana, A. (2016). "It was bad to see my [Child] doing this": mothers' experiences of living with adolescents with substance abuse problems. *International Journal of Mental Health and Addiction, 14*(5), 646-661, DOI: 10.1080/09687637.1236072

Guba, E. G. (1981). Criteria for assessing the trustworthiness of naturalistic inquiries. *Educational Communication and Technology Journal, 29*(2), 75-91. Copyright 1981 by the authors. Permission not sought.

Hammarberg, K., Kirkman, M., & De Lacey, S. (2016). Qualitative research methods: when to use them and how to judge them. *Human Reproduction, 31*(3), 498-501, https://doi.org/10.1093/humrep/dev334

Harrison, J. A., Mullen, P. D., & Green, L. W. (1992). A meta-analysis of studies of the Health Belief Model with adults. *Health Education Research, 7*(1), 107-116, https://psycnet.apa.org/doi/10.1093/her/7.1.107

Hemovich V., Lac A., & Crano, W. D. (2011). Understanding early onset drug and alcohol outcomes among youth: the role of family structure social factors and interpersonal perceptions of use. *Psychology Health & Medicine, 16*, 249-267, doi: 10.1080/13548506.2010.532560

Janz, N. K., & Becker, M. H. (1984). The health belief model: a decade later. *Health Education Quarterly, 11*(1), 1-47, DOI: 10.1177/109019818401100101

Khosa, P., Dube, N., & Nkomo, T. S. (2017). Investigating the Implementation of the Ke-Moja substance abuse prevention programme in South Africa's Gauteng Province. *Open Journal of Social Sciences, 5,* 70-82, DOI: 10.4236/jss2017.58006

Mabokela, K. E. (2018). *Coverage of the consumption of nyaope in two South African tabloids: A comparative study of the Sowetan and daily sun newspapers* [Master's thesis, University of Limpopo]. Fortinet dissertations and theses.

Mahlangu, S., & Geyer, S. (2018). The aftercare needs of *nyaope* users: implications for aftercare and reintegration services. *Social Work/Maatskaplike Werk, 54*(3), 327-345, https://doi.org/10.15270/54-3-652

Makgatho, L. (2018, June 29). *Bluetooth nyaope is spreading HIV.* https://www.iol.co.za/sundayindependent/news/bluetooth-*nyaope*-is-spreading-hiv-16301572.

Matuntuta, S. (2014, April 03). *Is nyaope South Africa's worst drug?* https://www.health24.com/Lifestyle/Street-drugs/News/Street-drug-*nyaope*-classified-as-illegal-20140403.

McLeod, J. D., Uemura, R., & Rohrman, S. (2013). Adolescent mental health, behavior roblems, and academic achievement. *Journal of Health and Social Behavior, 53* (4), 482–497, doi: 10.1177/0022146512462888.

Mohasoa, I. P., & Fourie, E. (2012). Substance abuse amongst adolescents: a case study of Zeerust, North West Province, South Africa. *New Voices in Psychology, 8*(1), 30-43. Copyright 2012 by the authors. Permission not sought.

Mohasoa, I., & Mokoena, S. (2012). Factors contributing to substance (drug) abuse among male adolescents in South African public secondary schools. *International Journal of Social Sciences and Humanity Studies, 9(*1), 108-120. Copyright 2012 by the authors. Permission not sought.

Mokwena, K. E. (2015). The novel psychoactive substance '*Nyaope*' brings unique challenges to mental health services in South Africa. *International Journal of Emergency Mental Health and Human Resilience, 17*, 251-252, Copyright 2015 by the author. Permission not sought.

Mokwena, K., & Morojele, N. (2014). Unemployment and unfavourable social environment as contributory factors to *nyaope* use in three provinces of South Africa. *African Journal for Physical, Health Education, Recreation and Dance, 1(*2), 374-384, http://dx.doi.org/10.15270/52-2-652

Monrouxe, L. V. (2009). Negotiating professional identities: dominant and contesting narratives in medical students' longitudinal audio diaries. *Current Narratives, 1(*1), 41-59. Copyright 2009 by the author. Permission not sought.

Monyakane, M. M. M. (2016). The South African drugs and drug trafficking act 140 of 1992 read with the South African criminal law amendment act 105 of 1997: an example of a one size fits all punishment? *Criminal Law Forum, 27(*2), 227-254, https://doi.org/10.1007/s10609-016-9279-2

Monyakane, M. M. M. (2018). A rehabilitative South African criminal law response to nyaope, drug addiction: a recommendation for health oriented nyaope drug weaning. *Research in Pediatrics & Neonatology*, *3*(2), 45 – 53, http://dx.doi.org/10.15270/52-2-652

Motsoeneng, L. (2018). *The experiences of family members of nyaope users and their knowledge on the available social policy interventions; a case of east of Johannesburg* [Master's thesis, University of Johannesburg]. *Wired Space.* http://wiredspace.wits.ac.za/bitstream/handle/10539/25192/Complete.pdf?sequence=1

Mudau, T. J., Ncube, D., & Mukansi, L. E. (2018). The effects of single parenting on raising teenagers: a case study of the Hasani Dakari village Vhembe district in Limpopo Province, South Africa. *Gender and Behaviour*, *16*(2), 11728-11739. Copyright 2018 by the authors. Permission not sought.

Nel, M. (2018, September 19). South Africa's legalization of marijuana is a big win for privacy. https://qz.com/africa/1395773/is-marijuana-legal-in-south-africa-landmark-ruling-allows-private-use/

Nkyi, A. (2015). Adolescents' use of alcohol, tobacco, and marijuana: the gateway to other drugs. *International Journal of Psychology and Behavioral Sciences, 5*(4), 158-168, doi: 10.5923/j.ijpbs.20150504.04

Peltzer, K. & Phaswana-Mafuya, N. (2018). Drug use among youth and adults in a population-based survey in South Africa. *South African Journal of Psychiatry*, *24*(1), 1-6, doi: 10.4102/sajpsychiatry.v24i0.113

Rosenstock, I. M. (1974). Historical origins of the Health Belief Model. *Health Education Monographs, 2*(4), 328-335, https://doi.org/10.1177%2F109019817400200403

Rosenstock, I. M., Strecher, V. J., & Becker, M. H. (1988). Social learning theory and the Health Belief Model. *Health Education Quarterly, 15*(2), 175-183, doi: 10.1177/109019818801500203

Schultz, P., & Alpaslan, A. H. N. (2016). Our brothers' keepers: siblings abusing chemical substances living with non-using siblings. *Social Work, 52*(1), 90-112.

Somani, S., & Meghani, S. (2016). Substance abuse among youth: a harsh reality. *Emerg Med, 6*, 330 – 340, DOI: 10.4172/2165-7548.1000330

Terry, G., Hayfield, N., Clarke, V., & Braun, V. (2017). Thematic analysis. In: Willig C, Stainton Rogers W, editors. *The Sage Handbook of Qualitative Research in Psychology. 2nd ed*. Sage.

Tessier, S. (2012). From field notes, to transcripts, to tape recordings: evolution or combination? *International Journal of Qualitative Methods, 11*(4), 446-460, DOI: 10.1177/160940691201100410

The United Nations Commission on Narcotic Drugs Political Declaration (2014, March 24). *Report on narcotic abuse*. https://www.unodc.org/unodc/commissions/CND/.

Tshitangano, T. G., & Tosin, O. H. (2016). Substance use amongst secondary school students in a rural setting in South Africa: prevalence and possible contributing factors. *African Journal of Primary Health Care & Family Medicine, 8*(6), 1-6, http://dx.doi.org/10.4102/phcfm.v8i2.934

United Nations Office on Drugs and Crime (UNODC) (2018, June n.d.). *Drugs and age: drugs and associated issues among young people and older people.* https://www.unodc.org/wdr2018/prelaunch/WDR18_Booklet_1_EXSUM.pdf.

Vaismoradi, M., Jones, J., Turunen, H., & Snelgrove, S. (2016). Theme development in qualitative content analysis and thematic analysis. *Journal of Nursing Education and Practice, 6*(5), 100-110, DOI: 10.5430/jnep.v6n5p100

Van Zyl, A. E. (2013). Drug use amongst South African youths: reasons and solutions. *Mediterranean Journal of Social Sciences, 4*(14), 581-589, http://dx.doi.org/10.5901/mjss.2013.v4n14p581

Wallendorf, M. & Belk, R. W. (1989). Assessing trustworthiness in naturalistic consumer research, in E. C. Hirschman & U. T. Provo (Eds.), *Interpretive Consumer Research* (pp. 69 – 84). Association for Consumer Research.

Yi, S., Peltzer, K., Pengpid, S., & Susilowati, I. H. (2017). Prevalence and associated factors of illicit drug use among university students in the association of Southeast Asian nations (ASEAN). *Substance Abuse Treatment, Prevention, and Policy, 12*(1), 9-16, https://doi.org/10.1186/s13011-017-0096-3

Appendix A: Ethical clearance certificate

University of Limpopo
Department of Research Administration and Development
Private Bag X1106, Sovenga, 0727, South Africa
Tel: (015) 268 3935, Fax: (015) 268 2306, Email: anastasia.ngobe@ul.ac.za

TURFLOOP RESEARCH ETHICS COMMITTEE

ETHICS CLEARANCE CERTIFICATE

MEETING: 06 February 2019

PROJECT NUMBER: TREC/11/2019: PG

PROJECT:

Title: An exploratory study into the experience and behaviour(s) of students who use Nyaope/Whoonga at the University of Limpopo.
Researcher: LS Mphahlele
Supervisor: Prof K Nel
Co-Supervisor/s: Ms M Mathivha
School: Social Sciences
Degree: Masters of Arts in Clinical Psychology

PROF P MASOKO
CHAIRPERSON: TURFLOOP RESEARCH ETHICS COMMITTEE

The Turfloop Research Ethics Committee (TREC) is registered with the National Health Research Ethics Council, Registration Number: REC-0310111-031

Note:

i) This Ethics Clearance Certificate will be valid for one (1) year, as from the abovementioned date. Application for annual renewal (or annual review) need to be received by TREC one month before lapse of this period.
ii) Should any departure be contemplated from the research procedure as approved, the researcher(s) must re-submit the protocol to the committee, together with the Application for Amendment form.
iii) PLEASE QUOTE THE PROTOCOL NUMBER IN ALL ENQUIRIES.

Finding solutions for Africa

- **Please note Ms Mathivha left the University and was replaced as a supervisor by Dr M Setwaba**

Appendix B: Ethics Forms (TREC)

Date: 10.2.2019

FORM B – PART I

PROJECT TITLE: AN EXPLORATORY STUDY INTO THE EXPERIENCE AND BEHAVIOUR(S) OF STUDENTS WHO USE NYAOPE/WHONGA AT THE UNIVERSITY OF LIMPOPO

DECLARATION

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

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

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

Name of Researcher: **MPHAHLELE LUCKY SIBUSISO**

Signature: MPHAHLELE LUCKY SIBUSISO

Date: 10.2.2019

For Official use by the Ethics Committee:

Approved/Not approved

Remarks:…………………………………………………………………………………...
……………………………………………………………………………………………..

Signature of Chairperson:…………………..

Date:………………………

FORM B - PART II

PROJECT TITLE: AN EXPLORATORY STUDY INTO THE EXPERIENCE AND BEHAVIOUR(S) OF STUDENTS WHO USE NYAOPE/WHONGA AT THE UNIVERSITY OF LIMPOPO

PROJECT LEADER: MPHAHLELE LUCKY SIBUSISO

Protocol for conducting research using human participants

1. Department: Psychology

2. Title of project: **AN EXPLORATORY STUDY INTO THE EXPERIENCE AND BEHAVIOUR(S) OF STUDENTS WHO USE NYAOPE/WHONGA AT THE UNIVERSITY OF LIMPOPO**

3. Full name, surname, and qualifications of project leader: Mr Lucky Sibusiso Mphahlele, M1 in Clinical Psychology; B Psyc (UL).

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

Name:	Qualifications:	Responsible for:
Mr L S Mphahlele	Completing MA Clin. Psych.	Researching

5. Name and address of principal researcher: Mr L S Mphalele, 40 Dave Herman street, The Orchards, Pretoria, 0182.

6. Procedures to be followed: Semi-structured interviews

7. Nature of discomfort: Re-living experiences associated with nyaope use may be stressful and cause anxiety.

8. Description of the advantages that may be expected from the results of the study: A better understanding of the experiences and challenges faced nyaope users who are in an academic environment.

Signature of Project Leader: *MPHAHLELE LUCKY SIBUSISO*

Date: 10.2.2019

PART II

INFORMATION FOR PARTICIPANTS

PROJECT TITLE: AN EXPLORATORY STUDY INTO THE EXPERIENCE AND BEHAVIOUR(S) OF STUDENTS WHO USE NYAOPE/WHONGA AT THE UNIVERSITY OF LIMPOPO

PROJECT LEADER: Mr L S Mphahlele

1. You are invited to participate in the following research project: **AN EXPLORATORY STUDY INTO THE EXPERIENCE AND BEHAVIOUR(S) OF STUDENTS WHO USE NYAOPE/WHONGA AT THE UNIVERSITY OF LIMPOPO**

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

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

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

5. You may feel upset, anxious, or stressed during the interview designed to help you explore your experiences before, during and after reorientation therapy. If you do please inform me immediately or as soon as you feel able. You will be referred for counselling to appropriate professionals to help you resolve these feelings.

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

PART IV

CONSENT FORM

PROJECT TITLE: AN EXPLORATORY STUDY INTO THE EXPERIENCE AND BEHAVIOUR(S) OF STUDENTS WHO USE NYAOPE/WHONGA AT THE UNIVERSITY OF LIMPOPO

PROJECT LEADER: L S Mphahlele

I, ____ hereby voluntarily consent to participate in the following project: **AN EXPLORATORY STUDY INTO THE EXPERIENCE AND BEHAVIOUR(S) OF STUDENTS WHO USE NYAOPE/WHONGA AT THE UNIVERSITY OF LIMPOPO**

I realise that:

1. The study deals with experiences and challenges pertaining to my using nyaope while attending an academic institution.

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

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

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

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

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

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

8. Any questions that I may have regarding the research, or related matters, will be answered by the researcher/s. You may contact my supervisors: mudzunga.mathivha@ul.ac.za/Kathryn.Nel@ul.ac.za or myself luckysibusisomphahlele@gmail.com if you need more information or feel uncomfortable with the research process at any time.

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

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

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

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

SIGNATURE OF RESEARCHED PERSON SIGNATURE OF WITNESS

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

Signed at________________________ this ____ day of ________________ 20___.

Appendix C: Questions for research participants

The questions are semi structured and follow-up questions which will be used to gain clarity and understanding as well as illicit information asked where necessary. The research will be explained to the participants and any clarity seeking questions will be answered by the researcher, five initial questions will be asked as to collect demographic information about the participants.

1. How old are you?
2. What is your gender?
3. What programme are you studying for?
4. What year level are you in?

Appendix D: Semi-structured interview guide.

Objective	Interview questions
1. To determine what perceptions students at the University of Limpopo have towards *nyaope/whonga* use	I. Have you ever experienced any academic difficulties which you attribute to drug use? II. Do you think that your drug use habits affect your ability to interact with your peer group who do not use drugs on campus? If yes (or No) explain why? III. Have you ever experienced any discrimination because of your drug use habits?
2. To look at the extent to which University of Limpopo students are informed about the negative implications of *nyaope/whonga* use.	I. Do you think, your drug use habits have any impact on you psychologically? If the answer is yes, please explain why? II. Do you think your drug use habits have any impact on your physical wellbeing? III. How has your life changed since you started using *nyaope/whonga*?
3. To identify self-reported behaviours and experiences of the users since commencement of using *nyaope/whonga.*	I. When and why did you start engaging in the use of drugs? II. How often do you engage in drug use? III. IV. What behavioural changes (if any) have you noticed since you started using *nyaope/whonga*? V. My final question is: do you have anything else that you would like to share?

Appendix E – Letter from the editor

Mphahlele Lucky Sibusiso
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Researcheditors882@gmail.com karabokonyani@gmail.com

17 December 2021

TO WHOM IT MAY CONCERN

This editing certificate verifies that this Academic research (Mini-Master's in Clinical Psychology) was professionally edited for Mr. L.S Mphahlele for English grammar. Thus, this document is meant to acknowledge that I, Mrs. K.L Malatji and Dr. E.J Malatji professional Editors under a registered company RightMove Multimedia, have meticulously edited the academic work of Mr. L.S Mphahlele from the University of Limpopo the standard of writing is of good quality and several corrections were made.

Title of the Mini-Dissertation: **"AN EXPLORATORY STUDY IN TO THE EXPERIENCE AND BEHAVIOUR(S) OF STUDENTS WHO USE NYAOPE/WHONGA AT THE UNIVERSITY OF LIMPOPO.**

Sincerely,

Mrs. K. L Malatji & Dr. E.J Malatji