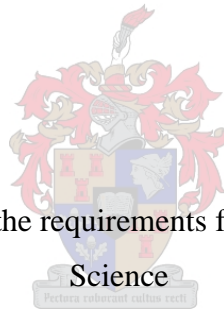


NURSES' PERCEPTIONS OF IMPAIRMENT DUE TO SUBSTANCE USE IN GAUTENG PROVINCE

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Thesis presented in fulfilment of the requirements for the degree of Master of Nursing

Science

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Declaration

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Abstract

Background:

Substance-related impairment among healthcare professionals including nurses has been a significant concern locally and internationally as it has public health implications. Impairment renders the practitioner incapable of providing competent, safe and quality care. Patient safety is fundamental in the provision of nursing care. This can be achieved by developing quality monitoring strategies and management of performance to ensure that the health worker's performance outputs meet the expected standards. This was a deductive study in which conclusions drawn on how nurses' perceived impairment due to substance-related disorders was based on the information from studies already conducted on the phenomenon. This study was conducted to gain in-depth knowledge and understanding of impairments due to substance-use disorder. Knowledge of this phenomenon could help the profession to understand the scope of the problems related to impaired nursing practice and to suggest measures that could be put in place to minimise the problem.

Objectives:

The purpose of the study was to explore nurses' perceptions of impairment due to substance use in selected settings in Gauteng Province and to explore their opinions on measures that may be taken to minimise the problem.

Method:

The study is quantitative, descriptive, and cross-sectional. In this study 104 respondents responded to questionnaires which were hand-distributed to enrolled and professional nurses in an academic tertiary hospital in Gauteng province. An electronic literature search was done at the University's library on the following data bases: PubMed, Wiley, Proquest and Google Scholar. Psychiatric textbooks and government notices were used to source information. Descriptive data analysis was conducted with the help of statistician.

Results:

Results demonstrated that respondents viewed nurses' impairment due to substance abuse as a disease that can be treated. They showed that they understood that impaired nursing practice could have negative effects on patient care. Most of the respondents showed support

for suggested measures that could be put in place to minimise the problem. The measures included the need for nursing education on substance-related disorders, support from employers, non-punitive measures and referring impaired nurses for rehabilitation.

Conclusion:

Substance-related disorders and impaired nursing practice are challenges that threaten public safety, and there is a need to educate nurses on the phenomenon and to seek remedies that would alleviate it in order to have a healthy, and competent nursing community.

Key words:

Substance abuse, substance-use disorder, health professionals, impaired nursing practice; nurses' workplace

Opsomming

Agtergrond:

Substansverwante inkorting onder gesondheidswerkers, insluitende verpleegkundiges, is 'n beduidende bekommernis plaaslik en internasionaal, aangesien dit openbare gesondheidsimplikasies het. Verergerde verpleegpraktyk stel praktisyn onbevoeg om bevoegde, veilige en gehalteversorging te bied. Pasiëntveiligheid is fundamenteel in die voorsiening van verpleegsorg. Dit kan bereik word deur die ontwikkeling van gehaltemoniteringstrategieë en bestuur van prestasie om te verseker dat gesondheidswerker se prestasieuitsette voldoen aan die verwagte standaard. Dit was 'n deduktiewe studie, waarin gevolgtrekkings gemaak is oor hoe verpleegkundiges se waargenome gestremdheid weens substansverwante versteurings afgelei is op die inligting wat reeds bekend is. Hierdie studie is uitgevoer om in-diepte kennis en begrip te verkry in waardedaling as gevolg van substansgebruiksversteuring. Kennis van hierdie verskynsel kan die beroep help om die omvang van die versteurde verpleegpraktykprobleem te verstaan en stel voorstelle wat ingestel kan word om die probleem te verminder.

Doelwitte:

Die doel van die studie was om verpleegkundiges se persepsies van inkorting as gevolg van substansgebruik in geselekteerde omgewing in Gauteng provinsie te ondersoek en hul menings te verken oor maatreëls wat geneem kan word om die probleem te verminder.

Metode:

Die studie is 'n kwantitatiewe, beskrywende, deursnee-studie. In hierdie studie het 104 respondente gereageer op vraelyste wat per hand aan ingeskrewe en professionele verpleegkundiges in 'n Akademiese Tersiëre Hospitaal versprei is. Elektroniese Literatuursoektog is deur die Universiteit se biblioteek gedoen op die volgende databasisse; PubMed, Wiley, Proquest en Google Wetenskap. Psigiatriese handboeke en regeringskennisgewings is gebruik om inligting te verkry. Beskrywende data-analise is met behulp van die statistikus gedoen.

Resultate:

Resultate het getoon dat respondente verpleegkundige gestremdheid beskou as 'n siekte wat behandel kan word. Hulle het getoon dat versteurde verpleegkundige praktisyn 'n negatiewe uitwerking op pasiëntsorg kan hê. Die meeste respondente het ondersteuning getoon vir voorgestelde maatreëls wat in plek gestel kan word om die probleem te verminder. Die maatreëls sluit in die behoefte aan verpleegonderrig oor substansverwante versteurings, ondersteuning van die werkgewers, om nie gestraf te word nie en verwysende gestremde verpleegkundiges vir rehabilitasie.

Afsluiting:

Substansverwante versteurings en verswakte verpleegpraktyk is 'n uitdaging wat die openbare veiligheid bedreig, en daar is 'n behoefte aan opleiding oor die verskynsel en om middels te soek wat dit sal verlig om 'n gesonde en bevoegde verpleeggemeenskap te hê.

Sleutelwoorde:

Middelmisbruik, substansgebruiksversteuring, gesondheidswerkers, verswakte verpleegpraktyk; werkplek.

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List of abbreviations

ANA -	American Nurses Association
APA -	American Psychiatric Association
DSM -	Diagnostic and Statistical Manual of Mental Health
EAP-	Employee Assistance Programme
HIV -	Human Immunodeficiency Virus
NCSBN -	National Council of State Boards of Nursing
PNII -	Perception of Nurse Impairment Inventory
SA -	South Africa
SANC -	South African Nursing Council
SPSS -	Statistical Package for the Social Sciences
SUD -	Substance Use Disorder
USA –	United States of America
WHO -	World Health Organization

Chapter 1

Overview of the study

1.1 Introduction

Substance abuse and its negative impact can be traced back to antiquity and continues to be a significant problem globally (World Health Organisation (WHO) 2014:5). It is a serious health issue that affects people at different stages of life. The scope of substance abuse problems is widespread affecting the health and well-being of individuals, families and society at large. Its detrimental effects further affect the wealth and security of the nations.

Drug-related death, especially substance overdose, is the most extreme form of harm that can result from drug use (Fellingham, Dhai, Guidozzi & Gardner 2012:6). Globally, it is estimated that in 2012, 5.2 % of the world population aged between 15 and 64 years had used an illicit drug, mainly substances belonging to the cannabis, opioid, cocaine or amphetamine-type stimulant (ATS) groups, at least once in the previous year (WHO 2013:5). Although the extent of illicit drug use and the scope of its negative effect on human life varies from country to country and in terms of the substances used, men are, generally, two to three times more likely than women to have used an illicit substance (Peltzer, Ramlagan, Johnson & Phaswana-Mafuya 2010:17).

In South Africa, drug abuse has been associated with crime, domestic violence and unhealthy lifestyles, impairment and death (United Nations Office on Drugs and Crime (UNODC) 2016:1). Drug abuse creates serious social, legal, and economic problems for the country. The need for treatment for drug use disorders and dependence reflects a problematic level of consumption.

Statistics indicate that the majority of the South African substance using population abuse cannabis (marijuana), followed by other substances (UNODC 2013:1). Most of these drugs are psychoactive mind altering substances that alter mood and perceptions. They also produce feelings of increased energy, pleasure, emotional warmth and distorted sensory and time perceptions and some use it for recreational purposes (SAMHSA 2015:4).

The drug methamphetamine is mostly abused in the Western Cape. It is a central nervous system stimulant, highly addictive and an illegal psycho-stimulant drug. It is abused for its powerful euphoric effects and its effect is long lasting (SACENDU 2018:1). Some people

find these drugs help them perform simple physical or mental task quicker as they increase alertness and attention. Some of the effects of these drugs appear and disappear quickly lasting from five to ten minutes. Abusers have to have higher doses frequently to achieve the desired effects and as a result their actions lead to addiction and other adverse reactions (National Drug Institute 2014:1).

Abused drugs are swallowed, snorted, smoked and injected. This remains a major concern as injection use and sharing of needles is associated with health and social damage, such as hepatitis A and other infectious diseases, more specifically HIV/AIDS. The situation may be aggravated by psychiatric comorbidity resulting in poor medication adherence and the resultant neuropsychological impairment (SACENDU 2018:1).

Gauteng Province, South Africa also faces substance abuse problems. SACENDU (2018:13) reports that 2% to 3% of health care professionals were referred for treatment for substance use disorders by their employers in Gauteng Province in the past five years. The statistics show an increase in substance abuse over the period, 2014-2017. Tables 1.1 and 1.2 respectively illustrate the most common primary substance of use and the source of referral for treatment in Gauteng from July 2014 and July 2017 (SACENDU 2018:13, 17).

Table 1.1 Primary substance use in Gauteng

	Jul-Dec 2014		Jan-Jun 2015		Jul-Dec 2015		Jan-Jun 2016		Jul-Dec 2016		Jan-Jul 2017	
	n	%	n	%	n	%	n	%	n	%	n	%
Alcohol	948	22	1168	27	931	26	897	23	815	28	830	21
Cannabis	1592	34	2203	51	1749	49	1990	50	1513	51	2189	57
Cocaine	264	6	280	7	229	6	260	7	136	5	159	4
Opiates	527	11	796	19	628	18	546	14	465	16	773	20
Ecstasy	21	1	20	1	24	1	17	0.1	10	0.1	16	0.1
OTC	60	1	106	3	76	2	145	4	65	2	101	3
Mandrax	84	2	111	3	130	4	212	5	103	4	151	4
Methcathinone	535	12	687	16	611	17	632	16	492	17	536	14

Methamphetamine	198	4	330	8	225	6	319	8	269	9	313	8
Inhalants	61	1	91	2	50	1	53	1	27	1	48	1
Nyaope/Whoonga	272	6	218	5	189	5	183	5	175	6	168	4

Table 1.2 Referral sources (Gauteng)

	Jan-Jun 2013	Jul-Dec 2013	Jan-Jun 2014	Jul-Dec 2014	Jan-Jun 2015	Jul-Dec 2015	Jan-Jun 2016	Jul-Dec 2016	Jan-Jun 2017
	%	%	%	%	%	%	%	%	%
Self/Friends/family	52	52	50	51	56	56	57	56	60
Employer	7	7	7	5	6	7	6	7	6
Health professionals	3	3	3	4	3	3	3	2	3
Religious body	1	1	1	1	1	1	1	1	1
Hospitals/Clinics	1	2	3	2	3	3	2	2	2
Social services	10	15	12	13	10	10	9	10	6
Correctional services	14	12	13	12	9	9	6	8	8
School	10	6	11	9	10	8	13	11	13
Social media	2	1	2	2	3	2	2	2	3

Healthcare professionals, including nurses, are susceptible to substance-related disorders, regardless of the knowledge that they may have regarding the psychological and physiological effects of chemical abuse. A substance-related disorder is a serious problem because of its physical and psychological effects. It can affect the brain functioning of individuals and a person's cognitive functioning can be impaired. If a health practitioner's judgement is impaired, this poses a risk to patients' safety; and the practitioner may be classified as an equivalent to an occupational hazard (Boulton & Nosek 2014:01).

The development of substance-use disorder and dependence problems in healthcare professionals varies by group. Physicians have reported prescribing controlled substances for themselves, pharmacists tend to self-medicate and have the opportunity to titrate their drug use. Psychiatrists and emergency health practitioners have reported a high rate of substance abuse, and nurses may report a high rate of alcohol abuse suggesting that there is a common cause for substance abuse among health professionals in the United States of America (USA) (Stewart & Mieller 2018: 134).

Substance Use Disorder is a serious concern for the nursing profession as addiction exposes individuals to increased risk of impairment, and as a result impaired nurses become dysfunctional in their ability to provide safe and quality nursing care (Burton 2014:151). Uys and Middleton (2010:440) state that substance use disorder can affect the individual's level of functioning within the family and at work. Nurses with substance use disorder have significant health-related risks, leading to morbidity, impairment and mortality. Substance abuse increases disinhibition, exacerbates feelings of anger and aggression, and impairs people's ability to exercise good judgement.

The prevalence of substance abuse among nurses in the USA has been estimated by the American Nurses Association (ANA) (2015) to be between 10% and 20% of nurses who are dependent on drugs and between 6% and 8% of registered nurses who are impaired due to abuse of alcohol and other drugs, making the incidence of drug abuse and addiction among nurses consistent with that of the USA population (Thomas & Siela 2011:1). The study by Miller, Kanai, Kebritchi, Grendell and Howard (2015: 66) suggests that the prevalence of substance abuse among nurses can be traced back over 150 years to the Florence Nightingale era. Given the increasingly stressful working environments in health care establishments in general, substance induced impairment among health care professionals is anticipated to grow (Epstein, Burns, & Conlon 2010: 514).

Nurses take an oath to provide competent nursing care and to prioritise the interests of their patients. Impairment due to substance use results in nurses being unable to perform professional duties and responsibilities due to cognitive, emotional or psychomotor dysfunction (South African Nursing Act 2005: Act 33 of 2005). Nurse impairment may be seen as a violation of the nurse's code of ethics. Some people may view nurse impairment as a moral failure with defective characters or lack of will power (Merlo, Singhakant, Cummings, & Cottler 2013: 349). The impaired nurse longs for acceptance and approval, feels shame, guilt and fear because of his or her addiction problem. Addiction may have negative consequences on them and their institutions since they may lose respect, their reputation and even their licence to practice (Boulton & O'Connell 2017:501). The health care institutions require nurses who are safe, competent and caring.

The Minister of Health has indicated that nurses are the backbone of the health service and constitute the largest single group of healthcare providers in the country. The South African health care system requires nurses to have the expertise to manage the country's burden of

disease and to meet South Africa's healthcare needs (Department of Health: Strategic Plan for Nurse Education, Training and Practice 2013-17:3). Impaired nurse practitioners are a risk to patient safety because of their slow reaction time. They divert treatment from patients and cause medical errors and incidents (Epstein, et al. 2010: 515). Nurses are viewed as the most compassionate, understanding and trusted of all health care professionals. However, impaired nurses, often fail to extend that compassion and understanding to one another and to the patients under their care (Azar, Badr, Kurdahi, Samaha, & Dee 2015:2).

Substance-use disorders among nurses have been recognised by nurse leaders as a growing threat to patient safety and to the health of the substance-abusing nurses (Boulton & Nosek 2014:01). The study by Miller, et al. (2015: 66) suggests that the problematic substance abuse by nursing professionals is an important, complex issue that results in impaired practice, which could endanger the health and safety of the public. The impact of impaired practice is felt in turnover and retention rates and staff morale as well as in the quality of patient care. The patients are at risk in the case of preventable errors, which in turn increases the health care institution's corporate liability as shown in the study by (Miller, et al. (2015: 66).

While the economic costs to the employer may be significant, the economic cost to the impaired nurse can be equally devastating. The impaired nurse is faced with the loss of income, health, self-esteem and the licence to practice (Eisenhut 2016: 55). The nurse can be criminally charged and there are additional costs of legal fees, fines and penalties.

The South African Nursing Council (SANC) has noted the challenge of impaired nursing practice through complaints which are received from the public and hospitals. The total number of substance-related disorders reported to SANC, from all nine provinces in SA was 134 for the year 2014-2015. Gauteng Province reported the highest numbers with 40% of cases. The statistics show that 65% of reported cases are professional nurses, who are mainly reported for abusing Pethidine (Meperidine) (SANC, 2015).

The researcher's interest in the topic originated as nurses are reported to SANC (the researcher's place of work) for substance abuse and impaired nursing practice. The aim of the study is to explore nurses' perceptions of those nurses whose nursing practice is impaired by substance abuse and the measures that may be taken to minimise the problem and enhance individual coping skills and, thus, ensure safe nursing practice.

1.2 Significance of the problem

Patient safety is a concern in public and private health institutions. The National Core Standards of South Africa have stipulated quality insurance aimed at improving the quality of care (South Africa. Department of Health, 2011). Patient safety has been prioritised by ensuring that safety measures are adhered to, to protect the public which includes the monitoring of health workers' attitudes. Concern has been raised about the increase in the amount of time spent in hospital which has risen to a month's stay as a result of complications arising from medication administration errors and other negligent acts by nurses (South Africa. Department of Health, 2011).

Impaired nursing practice is one of the factors which contribute to the increase in hospital stays, as some nurses often do not administer prescribed medication to the patients but steal prescribed medication for their own personal use. Related costs have in some cases been charged to the patients' private medical insurance (Epstein, et al., 2010: 516). The WHO (2013:5) suggests that the growing benefits of drug advancement bring greater risks of adverse events related to medication use. Section 56 of the Nursing Act 2005, (Act No. 33 of 2005) makes provision for professional nurses to prescribe, administer, keep and supply medication. Copp (2009:3) emphasises the point that some nurses use the opportunity of having access to medication to divert medication from patients for their own personal use. They also may divert drugs by administering a partial dose to a patient and keeping the balance for themselves.

In recent years, the South African government has paid millions of rand in legal claims resulting from negligence and malpractice in health care facilities, including impaired nursing practice (Malherbe 2013:83). The cost of reported claims has more than doubled since 2010. Malherbe (2013:83) maintains that in 2010 the Gauteng Department of Health and Social Development reportedly faced medical malpractice claims totalling R573 million.

The researcher has observed with interest in her work as a professional officer that nurses are being reported for substance use disorder which has a devastating effect on the nursing profession. These observations prompted the researcher to conduct a study to explore the perceptions of nurses about substance abuse.

1.3 Problem Statement

Nurses are reported to the SANC when they are considered by colleagues or their employers to be incapable of functioning with reasonable skill and safety due to their abuse of substances. The nurse categories of professional nurses and enrolled nurses are mainly reported for abuse of substances. The majority of cases reported to the SANC are professional nurses, which is of concern as these professionals have the relevant educational background and knowledge. Yet, despite this they appear to be most at risk of substance abuse (SANC 2017).

The problems in respect of impaired nurses not only affect the individual nurse herself, but the actions of impaired nurses place the public and the integrity of the nursing profession at risk. The impact of impaired practice is felt in quality nursing care, staff morale as well as in the turnover and retention rate (Monroe, Kenaga, Dietrich, Carter, & Cowan 2013:10). There is limited published information on substance abuse among nurses in South Africa.

1.4 Research question

What are the perceptions of nurses in general in respect of impaired nursing practice due to substance abuse in Gauteng province?

1.5 Research aim

The aim of the study was to explore nurses' perceptions of impairment in nursing practice due to substance abuse in a selected setting in Gauteng province

1.6 Research objectives

The objectives of the study were:

- to explore nurses' perceptions of impairment in nursing practice due to substance use in a selected setting in Gauteng province
- To explore nurses' opinions about measures that can be taken to minimise the problem.

1.7 Conceptual framework

The Stuart Adaptation Model (Figure 1.1) of nursing practice was used as the conceptual framework for this study. It is a model of psychiatric nursing care, which integrates biological, psychological, sociocultural, environmental and legal-ethical aspects of patient care into a unified framework of practice (Stuart 2013:44-56). This model focuses on the

person as an individual with individual needs, who reacts differently to the same amount of exerted stimuli and it helps one to understand that all kinds of behaviour are meaningful (Stuart 2013:44-56). The coping response to stress is based on specific predisposing factors, the nature of the stressors, and the perception of the situation and analysis of the situation. The response can be adaptive or maladaptive (Stuart 2013:44-56).

Professional nurses are exposed to various stimuli that may be internal or external. External stimuli may be a stressful working environment, and internal stimuli may be the lack of interest in the nursing profession. If the nurse has limited choices in relation to employment and cannot adapt to the situation, his or her coping mechanisms fail and they are likely to display maladaptive patterns of behaviour which may include the abuse of controlled substances. As a result nursing practice is impaired. The theory explains the unique relationship of people to their environment which results in maladaptive responses and impairment.

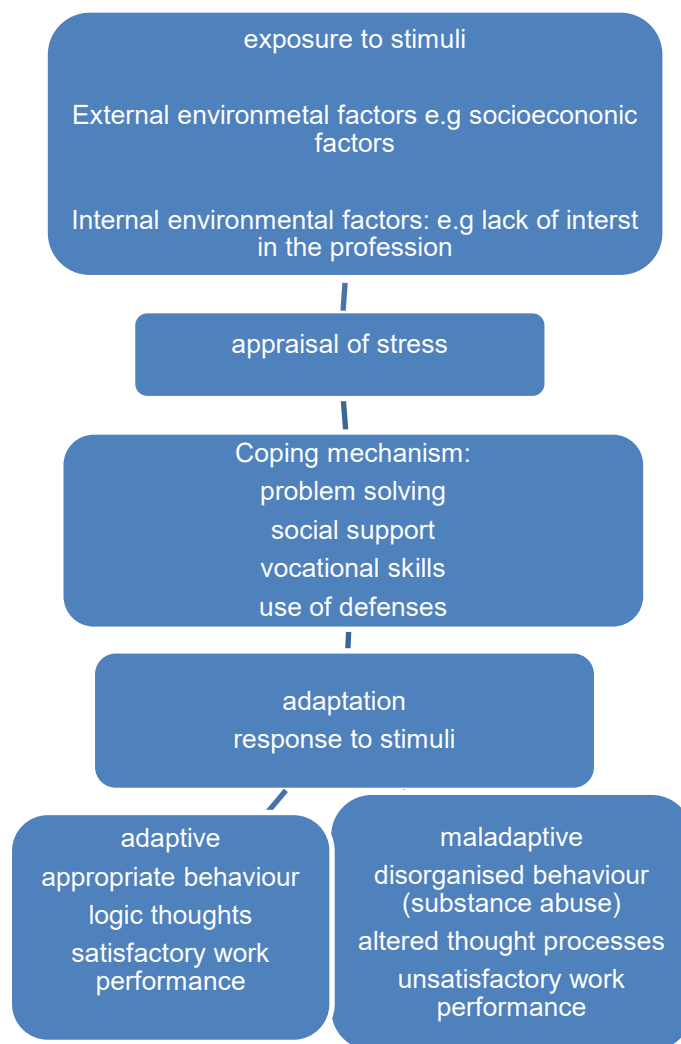


Figure 1.1 Conceptual framework based on the Stuart adaptation theory (Stuart, 2013:48).

1.8 Research methodology

Research methodology includes a series of steps and procedures that the intended research study will undertake to meet the objectives of the study (Polit & Beck 2006:15). An overview of these is provided below and detailed explanation of the methodology is provided in chapter 3.

1.8.1 Research design

A quantitative non-experimental, descriptive, cross-sectional survey was utilised to investigate nurses' perceptions about impaired nursing practice due to substance abuse.

1.8.2 Study setting

The research study was conducted in Gauteng Province as it has the greatest number of reported cases. The SANC 2015 statistics show that 40% of reported cases were from Gauteng Province in 2015. A tertiary hospital in Johannesburg was selected for the study. The study was conducted in the operating theatre, intensive care, psychiatry and maternity units. The selected units are believed to have higher levels of substance abuse because of intense emotional and physical demands, and the availability of controlled substances (Copp 2009:3).

1.8.3 Population and sampling

The 'population' refers to an entire set of individuals or objects in which the researcher is interested (Polit & Beck 2006: 260). Section 56 of the Nursing Act (2005, No 33) (South African Nursing Council, 2005) includes provisions for professional nurses to assess, diagnose, and prescribe treatment up to schedule 4, and keep and supply medication for prescribed illness and health conditions. The scope of practice of professional nurses enables them to administer medication and to control access to scheduled substances medication schedules 5 to 7 according to the Medicine and Related Substance Act, 1965 as amended (Act 101 of 1965).

1.8.4 Data collection

The data collection process involved the gathering of the information required to address the research problem (Polit & Beck 2006:291-293). A validated questionnaire was used for data collection. The Perceptions of Nurse Impairment Inventory (PNII), a five-level Likert attitude questionnaire and a demographic data sheet was used as data collection instrument. The PNII was designed and developed by Hendrix, Sabritt, McDaniel and Field in 1987, cited in (Boulton & Nosek 2014:31). The authors and the researcher adapted the original version of the instrument. Questions which addressed the USA National Council of State Boards of Nursing were omitted from the questionnaire.

1.8.5 Pilot study

A pilot study is a study conducted prior to the main study. It is a smaller study done to test the practical aspect of a proposed main study. It is conducted with participants who meet the inclusion criteria for the main study and data obtained from the pilot study may or may not

be included in the main study (Brink, Van der Walt & Van Rensburg 2012:174). The pilot study was conducted with four respondents who met the inclusion criteria, and who worked in the selected specialities in a tertiary hospital in Johannesburg. The respondents were two professional nurses and two enrolled nurses, one from each of the four clinical areas of the main study.

1.8.6 Validity and reliability

The perceptions of nurse impairment inventory (PNII) designed and developed by Hendrix, et al. (1987). A five-(5) level Likert attitude questionnaire was used as the data collection instrument. Its validity and reliability was established by Hendrix et al. (1987) cited in Boulton & Nosek 2014:31) in the USA. The PNII was used in more than 60 studies within the subsequent five years and most recently by Kunyk (2015:59).

1.9 Data analysis

The data was managed using the Statistical Package for the Social Science (SPSS) version 25.0. Descriptive analysis was done and the results are presented in figures and tables as appropriate.

1.10 Ethical considerations

The proposal was submitted to the Health Research Ethics Committee of Stellenbosch University for approval (Reference number: S17/08/2017). After ethics approval was obtained, permission to conduct the study was sought from the National Research Ethics Committee and the Gauteng Province Research Committee (Reference number: NHRD: GP 201711_012).

After the Gauteng Provincial Research Committee approved the study, the Province communicated with the respective hospitals and the approval to conduct the study was obtained from the Charlotte Maxeke Johannesburg Academic hospital on 21 November 2017. The researcher complied with the principles of the Declaration of Helsinki, (World Medical Association 2013:4) when conducting the research study.

1.11 Definitions

- According to Stuart (2013:433) the term ‘abuse’ refers to the act of “using mind altering substances by drinking, swallowing, sniffing, or injecting substances beyond their stated purpose;” this is how abuse is defined for this study.

- Addiction “is a state of severe psychological and behavioural dependence on substances characterised by compulsive use, a preoccupation with securing its supply, and tendency for relapse after discontinuation of substance” (Stuart 2013:433). In this study addiction is defined as a brain disorder characterized by compulsive engagement in rewarding stimuli despite adverse consequences.
- Enrolled nurses also known as a staff nurses, are trained to perform basic nursing care. In this study an enrolled nurse is the nurse who works under the direct or indirect supervision of a registered nurse as stipulated in the Nursing Act 2005, (Act 33 of 2005).
- Dependence “is the physiological state of neuro-adaptation that is produced by repeated administration of a substance, which necessitates continued administration of the substance to prevent the onset of withdrawal symptoms” (Stuart 2013:433). In this study dependence is defined as development of a high tolerance for the body in adapting to the drug leading to a desire for increased dose or more frequent doses.
- Illicit substance “use refers to the use of substances for non- medical, non-scientific or other unauthorised purposes” (Stuart 2013:434). In this study illicit drugs are substances that either stimulate (such as cocaine or amphetamines) or inhibit (such as heroin or sedative-hypnotics) the central nervous system or cause hallucinogenic effects (such as marijuana or LSD) to the effect that their use has been prohibited or restricted.
- Impairment “is a state of being incapacitated as a result of physical or mental disability” as set out in the Nursing Act 2005, (SANC Act 33 of 2005). In this study impaired nurse is defined as one who has impaired functioning which resulted from alcohol or drug misuse and which interferes with professional judgement and delivery of safe, high quality care.
- Nurse: A person registered in a category under section 31(1) in order to practice nursing or midwifery in terms of the Nursing Act, No 33 of 2005. In this study, ‘nurse’ is used as a general term, including professional, enrolled and auxiliary nurses.
- A professional nurse is a person who is qualified and competent to independently practice comprehensive nursing in the manner and to the level prescribed and who is capable of assuming responsibility and accountability for such practice. Registered nurses in this study are nurses who are educated and trained to provide health

promotion and maintenance, and have acquired the knowledge base, complex decision-making skills and clinical competencies for expanded practice as set out in the Nursing Act 2005, (Nursing Act no 33 of 2005).

- Substance abuse refers to the harmful or hazardous use of psycho-active substances, including alcohol and illicit drugs. Psychoactive substance use can lead to dependence syndrome - a cluster of behavioural, cognitive, and physiological phenomena that develop after repeated substance use and that typically include a strong desire to take the drug, difficulties in controlling its use, persisting in its use despite harmful consequences, a higher priority given to drug use than to other activities and obligations, increased tolerance, and sometimes a physical withdrawal state, according to the World Health Organization (WHO) 2014:5). In this study substance abuse is defined as the use of substances such as alcohol, prescription drugs and other illegal drugs that can lead to self-harm.

1.12 Duration of the study

After ethics approval was obtained from the University of Stellenbosch Health Research Ethics Committee on 7 November 2017, permission to conduct the study was then requested from the National Department of Health Research Ethics Committee and the Gauteng Provincial Research Committee. The Gauteng Provincial Research Committee approved the study, the province communicated with the respective hospitals and the approval from the public hospital to conduct the study was obtained on 21 November 2017. Data collection commenced in November 2017 and continued until June 2018. This period was interrupted due to end of year commitments for staff and vacation periods. Data analysis commenced in June 2018. The final report was submitted for examination in November 2018.

1.13 Significance of the study

The study explored the perceptions of the nursing community on impairment due to substance use and abuse. The study contributes to awareness rising in the nursing community about the prevalence of substance abuse among nurses and the consequences of substance abuse on individuals, colleagues and patient care.

1.14 Chapter outline

The outline of this dissertation is set out below.

Chapter One introduces the study background and provides an overview of the methodology.

In chapter two the literature review is discussed and a theoretical framework for the study is described.

Chapter three describes the research methodology in detail.

Chapter four presents the data analysis and results of the study.

In the final chapter the discussion, conclusions and recommendations are presented.

1.15 Summary and conclusion

The scope of substance abuse is widespread, affecting the health of individuals, families and societies. Its detrimental effects further affect the wealth and security of nations globally. In South Africa drug abuse has been associated with crime, the acquisition of sexually transmitted diseases, and death. The South African statistics indicate that 7% of the population abuses narcotics, and the drug of choice is cannabis followed by methamphetamines.

Health care professionals are not immune to substance abuse disorder, regardless of the knowledge they have on the detrimental effects of the disease. The development of substance abuse problem varies among the different groups of health professionals. Physicians have reported to be abusing controlled medications and tend to self-medicate. Substance use disorder is a serious concern for the nursing profession as addiction exposes individuals to the increased risk of a variety of mental and physical illnesses with resultant dysfunctional behaviour from drug misuse that affect the individual's level of functioning. Impaired nursing practice contributes to increased injuries, increased medication because of adverse reactions, ineffective medications and a high rate of litigation and legal claims in South Africa.

The Stuart adaptation theory was used as conceptual framework for this study as it explains how maladaptive behaviour comes about, starting from when a person has received stimuli which can be external or internal. The researcher used a quantitative, descriptive cross – sectional survey for the study which was aimed at exploring nurse's perceptions of impairment due to substance abuse. Ethical considerations were observed during the study. Data was analysed with a help of a statistician.

Substance abuse is a global challenge which has a negative impact on the health, socio-economic conditions and security of countries. Health care professionals including nurses are susceptible to the disease regardless of the knowledge they have about substance abuse. When nurses abuse substances and become impaired, patient safety is compromised.

Chapter 2

Literature review

2.1 Introduction

The literature review is a summary of current theoretic and scientific knowledge about a particular problem. A literature review is conducted to summarize the research-based knowledge for practice (Burns & Grove 2011:110). An electronic literature search was conducted to determine what is currently known about the topic of investigation, using the following data bases: PubMed, Cochrane library, Wiley, Science Direct, ProQuest and Google Scholar. The following key words were used: addiction problems; assistance; impaired nurse; interventions; health professional; substance use disorder, substance abuse, substance use, and workplace. Textbooks and government documents were also included in the search. Literature was searched from 2009 to date.

The review is organised under the following headings:

- Effects of substance-related disorders
- Predisposing factors related to substance-related disorders
- Indicators of substance-related disorders
- Behavioural indicators of substance-related disorders in nurses
- Physical indicators of substance-related disorders in nurses
- Psychosocial indicators of substance-related disorders in nurses
- Legal indicators of substance-related disorders in nurses
- Managing substance-related disorders

2.2. Effects of substance-related disorders

Kunyk (2015: 56) notes that substance use disorders have biological, psychological and sociological causation and have detrimental effects. Continuous use of substances may negatively impact learning, motivation, self-control and decision-making ability. Addiction decreases the production of gamma-aminobutyric acid that assists with relieving anxiety and insomnia (Miller, et al. 2015: 67). The effect of opiate abuse on homeostatic mechanism includes depression, brain and body stress and pain.

Monroe, Vendor and Smith (2011: 417) emphasise the co-morbidities that are often found in substance use disorders. The most common mental disorders that are co-morbid with substance use disorders are anxiety disorders, affective disorders, including major depressive disorders, and dysthymia. Antisocial personality disorders and borderline personality disorders and co-morbidities that are opportunistic infections, such as HIV, are also found in substance use disorders. Alcohol use disorders predispose individuals to physical illness, such as diabetes, liver diseases and cardiovascular diseases. Alcohol addiction causes hang overs, impaired motor co-ordination and faulty judgment (Kunyk 2013:55). Many fatal accidents on the roads are associated with driving under the influence of intoxicants (Kennedy & Julie 2013:5).

Addiction changes the individual's brain chemistry to the point where individuals use the substance compulsively despite negative consequences (NCSBN 2011:8). The desire to maintain pleasure gained from substances drives individuals to increase doses until these substances become toxic in the blood stream. The health of nurses with substance use disorder deteriorates, increases morbidity, disability and deaths (Angres, Bettinardi- Angres & Cross 2010:17).

There are costs associated with substance abuse, loss of productivity, crime and increased need for health care (Ross, Berry, Smye & Goldner 2017:1). The substance abuse may affect relationships, for instance, a person can lose friends and family. Trusting relationships at work can be ruined and a person can lose employment resulting in shortage of staff. The employer bears the cost of time and finance when instituting disciplinary processes and referring the employee for rehabilitation. A person finds himself or herself in a punitive environment because of the stigma associated with substance use disorder. Statistics of the American Nurses Association (ANA) show that 6% to 8% of nurses are impaired due to substance use. An impaired nurse poses a threat to patient safety in nursing care (Lockhart & Davis 2017: 40). According to South African Health Review (2017:198), commonly abused substances and their effects are listed in Table 2.1

Table 2.1 Commonly abused substances and their effects

Drug type	Effects
Marijuana	Impaired short-term memory and decreased attention, drowsiness
Cocaine	euphoria, erratic behaviour, anxiety and mood disturbances
Prescription stimulants	Increased attention, anxiety, psychosis and hostility
Prescription depressants	Increased drowsiness, impaired attention, impaired balance and coordination, perception disorder
Opioids	euphoria, clouded thinking, alternating alert and drowsy states

The United States of America's National Institute of Drug abuse (2014:3) reports that individual beliefs play a role in the development of drug-seeking behaviour. These beliefs also create the expectations of the individual about potential problems which they may face by using drugs. The study suggests that addiction is a disease of decision-making and learning and this may be a reason why persons continue using drugs despite its negative consequences.

2.3. Predisposing factors contributing to substance-related disorders

Darbro and Malliarakis (2012:6) describe a multifactorial risk model of impairment which includes heredity, family history, gender, psychological deficits, antisocial personality disorder, stress and socio-cultural factors. Impaired nurses share common characteristics with the general population, but the difference is in the development, progression and severity manifested in each individual.

The biological factors contributing to substance abuse include genetics and neurobiology, including the brain structure. Neurobiological theories address the role of neurotransmitters which reinforce dependency by stimulating future use through a biologic reward mechanism in the brain, especially in the median forebrain bundle region, which is closely associated with the mesotelencephalic dopamine system (ASBN 2014: 12). This is a mechanism behind the reward sensation and the development of tolerance. The urge for an alcoholic to drink may be related to the G-allele that predisposes people to substance abuse; this explains the role of genetics in alcohol addiction (ASBN 2014: 12).

Genetic influences account for 40% of the risk of substance abuse and include inherited predisposition to alcohol and drug abuse (Substance Abuse and Mental Health Services Administration (SAMHSA) (2015). A cannabinoid receptor1 gene has been reported as associated with cannabis and cocaine dependence (ASBN 2014: 11). Substance abuse by parents and poor parenting predispose an individual to substance use disorder.

Gender may contribute to vulnerability to substance use disorder. Women are said to be more vulnerable to the onset of substance abuse when they encounter a stressful life event, trauma or loss. They become ill more rapidly than men because of their lower body weight and more intense reactions (Kunyk 2015:56). However, the study by McNelis, Horton-Deutsch, O'Haver Day, Gavardinas, Outlaw, Palmer & Schroeder (2012:1) found that males have a higher percentage of substance use disorders than females.

Darbro (2013:6) has argued that certain people are born with personality traits that make them more susceptible to substance abuse. People with addictive personalities tend to have excessive dependency needs, and a strong need for success or power. Often, they may have a gender dysphoria and be unable to cope with overwhelmingly painful feelings and to fulfil societal expectations which increase their vulnerability.

Kunyk and Austin (2011: 390) note that behavioural models of addiction indicate positive reinforcement and conditioned responses as motivations of drug-seeking behaviour, such as religion, emotionality, low self-esteem, and lifestyles. Certain religious groups, such as the Rastafarian movement perpetuate or condone the use of marijuana (dagga), in particular, as a way of worship and gaining of wisdom. Marijuana use is associated with creativity and authenticity; people use high doses of cannabis only to find that they are impaired with respect to their ability to think creatively (Mounir & Mohammed 2016:64).

Merlo, Trejo-Lopez and Conwell & Riverbank (2013: 605) note that early experimentation with substances is a risk factor for developing substance use disorder. Their research found that people who began smoking or drinking at an early age are at risk of life-time alcohol dependence and drug addiction. The risk for substance use in adolescents is related to individual and peer influence, family factors and environmental factors, such as living arrangements. Those living in poverty-stricken urban areas with a lack of employment opportunities are at high risk (Merlo, et al. 2013: 605). Mounir and Mohammed (2016:63) report that impulsivity is involved in the initiation and maintenance of drug-seeking behaviour and relapse. Increased substance use is associated with risk-taking, and the desire

to transgress social and conventional norms. Polymorphism in the dopamine B4 receptor is associated with impulsive behaviour in humans (Bettinard-Angres & Rodrigo 2015:47).

2.4. Predisposing factors contributing to substance-related disorders in nurses

Cares, Pace, Denious and Crane (2015:60) described the factors that may promote the development of substance abuse. These include the working environment, family dynamics, access, stress, attitudes and the culture of the nursing profession. Environmental factors which are associated with substance use among nurses include lifestyle disruption due to inconsistent work schedules, high expectations at work and an inability to act as a role model. Nurses attempt to internalise their feelings in order to maintain control. Cares et al. (2015:60) reports a number of personal factors that predispose nurses to substance use disorder, such as lack of interest in the nursing profession, and working in a survival mode.

Merlo, et al. (2013: 348) argues that nurses are susceptible to substance abuse due to their acceptance that the function of drugs is to heal physical and emotional pain and psychiatric disorders. Some nurse's uses substances as a coping mechanism and some find that drugs help them to perform better and create comfort and relaxation. Some use substances for recreational purposes. Some nurses think that they are immune to addiction and do not see themselves as patients. Nurses also think that they have the right to self-diagnose and self-medicate (Watkins 2010:26).

Certain areas of nursing practice may increase the likelihood of substance abuse. The prevalence is higher in psychiatric units, intensive care units (ICU) and emergency units as they are considered to be demanding and high pressure work settings because nurses are exposed to life-threatening conditions (Darbro & Malliarakis 2012:09). Ross, et al (2017: 5) suggest that nurses who work in ICU are more likely to abuse substances as they have sensation-seeking personality traits that seek exposure to crisis situations. They have to deal with an unpredictable work pace, the immediacy of nursing interventions and reliance on pharmacological agents. Mental health nurses have a high rate of substance abuse as they consider self-medication helpful (Kunyk 2015:58).

The ready availability of medicines in health facilities, easy access to drugs, and easy access to prescription sheets increases the likelihood that nurses may use medication for their personal purposes (Ross, et al. 2018:3). Substance abuse reflects the effectiveness of medicine policies. Watkins (2010: 27) argues that poor policies on the control of scheduled

substances and poor drug control are precipitating factors contributing to misuse. Negligent colleagues create an enabling environment for the substance abusing nurse. According to Bettinard- Angres and Bologeorges (2011:10), substance use disorders are mainly first identified by colleagues. Because of fear of retaliation, or because they are uncertain about what to report they fail to report their concerns to supervisors.

Monroe et al. (2013:10) suggest that nursing is a highly stressful occupation. The study reports that nurses work under a high level of stress, and are even subjected to exploitation as they are sometimes forced to perform duties outside their scope of practice and for which there is no legal protection. The study by Lengel (2017:2) indicates that work demands can also extend beyond the limits of nurse's professional preparation. Sometimes in-service training may be insufficient and the individual may feel that his or her competency level and skills are lacking which results in high stress levels. An individual may feel hopeless when coping skills are ineffective and need immediate relief from emotional pain.

In their study, Graffney, De Marco, Hofmeyer, Vessey and Budin (2012:2) suggest that bullying and violence in healthcare precipitates stress within the nursing community. Acts of workplace violence include verbal threats, verbal abuse, sexual harassment, racial discrimination, intimidation and physical assaults. The deliberate, repetitive and aggressive behaviour of bullying can cause psychological, emotional and physical harm among nurses. Practitioners who are bullied feel humiliated, frustrated, vulnerable and threatened, thus creating stress and this undermines self-confidence (Chapman, Styles, Perry & Combs 2010:187).

The lack of education on the addictive process and its signs and symptoms contributes to substance use disorder. Often when the problem is discovered a person is already in a chronic stage. A work environment in which practitioners have limited knowledge regarding drug addiction, makes most nurses and administrators incapable of recognizing the manifestation of the problem (Strobbe & Crowley 2017:105).

South African nurses are faced with unsafe working conditions in the health care system. There is a shortage of human and material resources, health care facilities are overcrowded and the burden of disease has increased (National Strategic Plan, 2017-2017: 27). The workload is unrealistic and nurses feel that they are not fairly compensated for the work done, feel that their rights as workers are not protected, have no support from management and the

situation affects their performance (Peltzer, et al., 2010:18). This matter is unresolved and a concern as it produces negative emotions, job dissatisfaction, absenteeism, burn-out and predisposes nurses to substance-related disorders (Kennedy & Julie 2013:5). Employers are unable to meet the organisation's performance targets, and these make it more difficult to attract, motivate and retain staff. This not only jeopardizes quality patient care, but also the quality of practical training and exposure of nurses and midwives (Department of Health. Strategic Plan, 2017-2017: 27).

2.5. Indicators of substance-related disorders

2.5.1. Behavioural indicators of substance-related disorders in nurses

Monroe and Kenaga (2011: 508) describe behavioural indicators related to job performance which include excessive use of health benefits and absence without notification. Nurses' work performance has deteriorated to the point that they have difficulty in meeting deadlines, make excessive mistakes and their overall work quality has declined. They are unable to work as independent practitioners as they frequently request assistance and they cannot be trusted with patient care as they may fall asleep during working hours.

Angres, Bettinardi-Angres and Cross (2010:16-20) describe behavioural indicators related to substance-seeking behaviour and diversion which include consistently volunteering to be the medication nurse; frequent reporting of spills or wastes and accidents of spilling or having broken ampoules. They have frequent and unexplained disappearances from the work units, especially after administering or recording that they administered medications. When on duty, they administer medications which are not frequently used. They wait to be alone before obtaining controlled substances, discrepancies between patients' records and drug records are noted and they alter prescriptions and doctors' orders. Substance abusing nurses attempt to administer drugs alone and avoid witnesses when they discard drugs. Patients have also complained of high medical bills due to nurses manipulating prescription sheets to get increased drug supply, which is then charged to patients' accounts (Darbro & Malliarakis, 2012: 7). They have good relationships with substance use enablers or with doctors who can prescribe for them. They prefer shifts where there is less supervision and they are defensive when questioned about medication errors, and patients complain of not receiving medication (Bettinard-Angres & Rodrigo 2015:48). Epstein, et al. (2010: 511) reports that nurses who abuse substances are unreliable on the job, change jobs frequently, have missed two or more

days of work in the past month, their jobs have been terminated by employers in the past month or they have been involved in a workplace incident in the previous period.

2.5.2. Physical indicators of substance-related disorders in nurses

Early indications of health problems at the workplace include changes in physical condition, such as weight loss and malnutrition (Cares, et al. 2015:64). Scars on exposed areas may be present and often covered by long sleeves. Substance use disorder may present with symptoms, such as restlessness, tremors, goose-like skin, diaphoresis, complaints of physical pain and deterioration in personal hygiene. Other physical symptoms of substance use disorders include being intoxicated on duty, marked nervousness, blackouts, and frequent hangovers and the person may suffer withdrawal symptoms. A nurse may try to mask the smell of alcohol by using mouth wash, chewing gum and mints excessively. Substance use disorders may present with slurred speech, pinpoint pupils or glassy-eyed, flushed or puffy face, runny nose, watery eyes and dilated or constricted pupils and excessive sweating (Bozimowski, Groh & Rouen 2014:98).

2.5.3. Psychosocial indicators of substance-related disorders in nurses

Thomas and Siela (2011: 4-5) explain that a nurse with alcohol and drug use problems has impaired coordination, diminished alertness, memory loss, poor judgement and impaired cognitive functioning. For such a person a simple task requires more effort and he or she may have difficulty in understanding instructions. He or she finds it difficult to assign priorities; is forgetful and has poor concentration (Boulton & O'Connell 2017:501). According to Bettinardi-Angres and Bologeorges (2011:13) practitioners with substance use disorder have elaborate excuses for simple problems and inappropriate emotional responses.

They show an unexplained need for money, and they are always in trouble as they find it difficult to pay back money they borrowed from their colleagues (Boulton & O'Connell 2017:501). A nurse who was outgoing may suddenly become passive and uncommunicative and his or her attitude towards work or colleagues may change. They may be withdrawn or isolated from their colleagues. They sometimes have difficulty with authority figures (Boulton & O'Connell 2017:501).

2.5.4. Legal indicators of substance-related disorders in nurses

According to Uys and Middleton (2010: 446) people with substance use disorder fail to accomplish what is expected at work and they have problems related to occupational compensation, as there may be litigations against them or the institution because of their negligence. They are often in trouble with law enforcers as they are arrested for illicit drug use, for being found in possession of illegal substances and for driving under the influence.

2.6. Management of nurse impairment due to substance-related disorders

Studies indicate that historically, a disciplinary approach has been used to manage substance abuse problems among nurses (Thomas & Siela 2011:5). Policies that mandate punitive actions were ineffective and may have endangered the public as nurses may decide to hide their substance use disorder (Kunyk 2015: 54-64). Kunyk found that more than 40% of health care facilities in the United Kingdom (UK) do not retain nurses once their substance use disorder has been discovered. Lengel (2017: 9) suggests that a nurse whose nursing practice is impaired by substance abuse should not simply be fired as this action passes the problem on to the other employer and continues to put patients at risk. In the USA, American Nurses Association addressed substance abuse problems by promoting the use of peer assistance programmes as an alternative to discipline (Monroe 2009:276).

McCulloh, Nemeth, Sommers and Newman (2015: 84) maintain that a lack of knowledge about substance use disorder prevents nurses from identifying substance abusing colleagues and these colleagues are not reported. Boulton and O'Connell (2017: 413) emphasise the need for education in identifying and responding to chemical dependence, because nurses with such knowledge can address the problem with confidence and understanding. Education programmes should define chemical dependency and explain the progression of addiction, including its physical and behavioural manifestation. Legal and ethical and health implications of chemical dependency should be part of the education programmes. The education in respect of substance abuse and dependency should focus on prevention, early intervention and support through a recovery process (Strobbe & Crowley 2017: 104).

Continuing education is another avenue for promoting awareness of substance abuse among health professionals and the general public (Stewart & Mieller.2018: 134). Cadiz, O'Neill, Butell, Epeneter, and Basin (2012:420) suggest that administrators should focus on the development of policies and procedures related to chemical dependency. The policy should

outline the employer initiative programmes to promote safety and provide assistance. These policies should include communication and referral strategies. Policies should outline the practitioners' and the employer's responsibilities once the employee is admitted to rehabilitation programme. Burton (2014: 162) recommends an organisational plan that emphasises follow-up and re-entry into practice.

Administrators need to strategize and manage risk factors for substance abuse, and modify the work environment to minimise substance use problems (Watkins 2010: 24). The employer as well as nursing education institutions should ensure that their prospective employees are fit for practice before they commence in the nursing profession (Brailon 2014:42).

The managers of health institutions refer addicted employees to employee assistance programmes and rehabilitation programmes. The practitioners enter into an agreement or contract in which a detailed treatment plan is outlined. The approach to psychotherapeutic programmes is clearly illustrated which includes termination of the programme after successful rehabilitation; disciplinary action should the practitioner fail to adhere to treatment plans, and withdrawal from practice (Strobbe & Crowley 2017: 104). There are several methods or programmes used in substance rehabilitation which include the twelve-step programme by Alcoholics Anonymous, as well as motivational counselling, cognitive behavioural programmes, individual and group therapies, supportive family care and therapeutic community programmes (Monroe, et al. 2011: 413). These programmes are aimed at increasing the individual's motivation to change and increase coping skills. The manager may be updated by quarterly reports from therapists and the terms and conditions for successful completion of the programme (Stewart & Mieller 2018:133). Successful completion of the programme includes a validation of progress and the stability of the nurse and his or her fitness to practice is established (Monroe 2009: 274). Managers supervise and monitor nurses who are returning to work after rehabilitation. Their role includes practice restrictions, performance evaluations, behavioural evaluations and monitoring the signs of relapse (Darbro 2011: 6).

Nauert (2011:17) supports strategies that promote an alternative to discipline programmes. After reviewing the latest research and professional guidance from the USA, Canada, New Zealand, Australia and the UK, Nauert (2011:17) identified six key points recommended by

researchers that can be utilised as an alternative to discipline programmes, which can assist in changing perceptions of substance abuse among nurses.

- *“Open communication should be promoted where nurses feel free to discuss substance abuse in health care and nursing education setting”*
- *“Information about signs and symptoms of substance abuse should be provided to all staff members”*
- *“Mock intervention should be conducted to assist employees feel free to approach a colleague or student about suspected substance use disorder”*
- *“Mental Health specialists should educate schools and hospitals about substance use disorder”*
- *“Participation in scholarly forums and mental health symposiums about addiction among healthcare providers” and*
- *“Creating a free environment where people can privately report problems of substance abuse without fear of being victimised”.*

2.6.1. Nurse impairment management by regulatory bodies

Regulatory bodies have a mandate to regulate professionals within their jurisdiction. They have a responsibility to protect the public and to ensure safe nursing practice by providing regulations and law enforcement that relate to nursing practice. The laws and regulations outline the scope of practice for nurses, code of ethics and fitness to practice (NCSBN 2011:26-27).

States in the USA have different approaches to managing substance-related impairment. The Oklahoma Nursing Board and Florida Nurse’s Board see substance abuse as a violation of the nursing code and grounds for discipline. Nurses who abuse substances are fined and suspended and their licences revoked according to Knittle (2014: 4). Should a suspended nurse wish to resume his or her duties, the nurse is given the opportunity to show that he or she can resume competent nursing practice. The Board may not reinstate the licence of a nurse whom the Board has proved to be not fit to practice (Lengel 2017:3).

Since the 1970s the National Council of State Boards of Nursing (NCSBN) in the USA implemented non-disciplinary programmes which replace traditional discipline (NCSBN 2011:29-30). Substance-related impaired nurses sign a contract to participate in a programme.

The programmes are voluntary, confidential and non-punitive. They include a detailed treatment plan, provision for withdrawal from practice or limitations on the scope of practice and the consequences of failure to comply with the treatment plan. The nurse has to complete the course or she will not be allowed to return to practice.

Once a nurse returns to practice she is monitored for a specific period. A recovery contract establishes the conditions of drug screen tests, frequency of self-help meetings; peer assistance programmes and any other terms that may be deemed necessary for a practitioner to be confirmed as being fit to practice. The recovering nurses are not fired, but remain in employment while being monitored and continue with treatment. Their health is sustained while they have financial support (NCSBN 2011:29-30).

Employers have a responsibility to provide a healthy working environment for their employees and that includes paying attention to the promotion of health, safety and wellness for the employee. A manager has the responsibility to detect nurses whose practice is dysfunctional due to substance abuse. If the problem is identified soon, the appropriate interventions can be instituted and safe nursing practice is maintained (NCSBN 2011:29-30).

The South African regulatory body for nurses, the South African Nursing Council, has the responsibility to regulate the nursing and midwifery professions to ensure safe and quality practice to protect the public by setting education, practice and research standards. Section 15(1) of the Nursing Act 33 of 2005 provides for the establishment and appointment of an impairment committee by the Council; which has the responsibility of assessing whether nursing practitioners are fit to practice.

The impairment committee functions in accordance with the provisions of Section 51 of the Nursing Act 33 of 2005 and the Government Notice No. 1099 of 2012. Section 51(1) states that “whenever it appears to the Council that a person registered in terms of the Act is or may be incapacitated as a result of disability or is, or may be impaired, whether mentally or otherwise, to such an extent that

- it would be detrimental to the public interest to allow him or her to continue to practice; and
- In the case of a learner, has become unfit to continue with the education programme, the Council must appoint a committee to conduct an inquiry in the prescribed manner.”

The Council may suspend a person for a specified period or stop that person from practicing and, in the case of a learner, suspends or stop him or her from continuing with his or her education and training programme.

The Government Notice (R1099) relating to the conducting of inquiries into alleged unfitness to practice due to disability or impairment of a person registered in terms of the Nursing Act 33 of 2005, indicates that when all the required documents have been obtained the committee shall schedule a preliminary assessment meeting to consider an allegation of unfitness to practice, except where there is dispute of the facts or if the Council has a reason to believe that a complaint received under Section 51 is frivolous or vexatious. All meetings conducted by the Impairment Committee are in-camera, that is, the public is not allowed. Respondents are informed of the confidentiality and the supportive role of the Committee.

The committee invites the respondent, at the cost of the Council, to submit to a medical examination by a health expert appointed by the Council or the respondent may undergo medical examinations at her/his own cost at the institution of their choice. The health examiner must provide the recommendation to the Council on the practitioner's fitness to practice, or give the opinion to the Council as to whether the practitioner may be allowed to practice on a limited basis.

If the Impairment Committee, after holding an inquiry, finds the respondent to be unfit to practice, the Committee removes the practitioner's name from the register or the Committee may allow the practitioner to practice under certain conditions as it may deem fit. The conditions or limitations to practice imposed on the respondent includes a condition that the respondent must submit regular reports from his or her therapist and from the supervisor. The Committee also determines whether there is compliance with the stated conditions and such conditions are reviewed by the Impairment Committee at least every three months (Government Notice 1099 Of 2012: 14).

If a nurse practitioner, whose name has been removed from the register due to non-compliance with the Committee's conditions, applies for re-instatement, the Council must evaluate the person's ability to continue practicing and may extend or withdraw the period of operation of the suspension.

In the event that the respondent appeals against the finding of the Committee, especially those who are declared unfit to practice and are to be suspended or removed from the register there shall be expediency of the process of appeal.

In the event that a respondent has been provisionally suspended, such suspension is effective until the appeal is finalised.

For purposes of appeals against decisions of the committee, the disciplinary appeal committee as contemplated in Section 15(4) of the Nursing Act 33 of 2005 shall be empowered to hear appeals against decisions of the committee.

2.6.2. Nurse impairment management South African Labour Law

The National Department of Health has developed a Wellness Management Policy to address psychosocial problems at work. The policy addresses Stress, Substance abuse, HIV and AIDS, Violence and Economic Stress. Wellness management is a priority due to increasing recognition that the health and wellbeing of employees directly impacts on the productivity of the entire organisation. It calls for effective interventions to prevent occupational hazards and provides access and rights to occupational health services. This is attained by creating an organisational climate and culture that is conducive to wellness and comprehensive identification psycho social health risks. The principles of the Wellness Management Policy is to ensure that confidentiality is maintained at all times except in cases of risk to self and others or in terms of legislation. Registered professionals are responsible for providing therapeutic interventions and they should adhere to Ethical Principles. Employee participation to in the programme is voluntary.

The Head of the Department ensures development and implementation of a written policy on wellbeing of employees. He/she appoints a Senior Manager to champion the Wellness Management Programmes at work place and ensures resources are provided. A Wellness Management Committee must be established that will oversee the implementation of the Wellness programmes. The Designated Senior Manager structures, strategies and develops holistic employee wellness programmes. Plans intervention based on risk and needs analysis. The Senior Manager establishes e-Health and Wellness information systems and Peer Educations programmes.

The Gauteng Province Policy on Substance and Drug Abuse in the work place developed following the principles of the Prevention and Treatment of Drug Dependency, Act 20 of 1992, stipulates that the consumption of and possession of any intoxicating substances, excluding over the counter medications is prohibited at work place place (Soth African Governmet, Policy on Substance and Drug Abuse in the work place 2013: 2). No employee with blood alcohol level above 0.03% will be allowed to continue or resume duties. The employee must be referred for EAP. The Senior Manager appointed will ensure that drug testing is conducted to employees suspected to be intoxicated at work. And fitness for duty will be evaluated by Employee Wellness Practitioner. Employees with substance use problems shall be referred for 90 days rehabilitation in a facility determined by the employer. The policy ensures that the employee takes responsibility for his/her health by applying knowledge, motivation and commitment toward achieving fitness, health and organisational goals.

2.7. Summary and conclusion

The literature review in this chapter provides an overview of impairment due to substance use. Both quantitative and qualitative research studies were conducted in studies and articles quoted in this study. In many countries, substance abuse is a concern for nurse managers and employees, due to the risk to quality patient care. Internal and external factors predispose nurses to substance use disorder and impaired nursing practice. It is evident that there is a need for this study, due to the paucity of literature available on the South African situation.

Chapter 3

Research methodology

3.1 Introduction

Research methodology includes a series of steps and procedures that the intended research study will undertake to meet the objectives of the study (Polit & Beck 2006:15). This chapter provides details of the research methodology that was utilized to conduct this study.

3.2 Research aim and objectives

The aim of the study was to explore nurses' perceptions of impairment due to substance use in a selected setting in Gauteng Province.

The objectives of the study were:

- To explore nurses' perceptions of impairment due to substance use in a selected setting in Gauteng province.
- To explore nurses' opinions about measures that can be taken to minimise the problem.

3.3 Study setting

The research study was conducted in Gauteng Province as it has the greatest number of reported cases. The SANC (2015) statistics show that 40% of reported cases were from Gauteng Province in that year. Initially two tertiary hospitals in Gauteng province were selected for the study. Although university ethics approval for two tertiary facilities was granted, only one hospital was approved by the Gauteng Provincial Research Committee. Hospital approval to conduct the study was obtained on 21 November 2017. The study was conducted in the Operating Theatre, Intensive Care, Psychiatry and Maternity units. The selected units are believed to have higher levels of substance abuse because of intense emotional and physical demands, and the availability of controlled substances (Eisenhut 2016: 54).

3.4 Research design

The study was conducted by means of a quantitative, non-experimental, descriptive, and cross-sectional survey to explore nurses' perceptions of impaired nursing practice due to substance use. The methodology does not require manipulation of variables, the data

obtained can be utilised to identify problems in respect of current nursing practice and to make recommendations on the corrective measures. Descriptive studies describe the characteristics of persons, groups or situations, and the frequency with which certain phenomena occur. It is an ideal design for a researcher to draw inferences about the variables under study (Polit & Beck 2006:201).

In relation to research paradigms, positivism is believed to be an appropriate approach for the social sciences as it is based on a belief that a phenomenon can be observed by using instruments which are perceived to be valid (Polit & Beck 2006:13). The Perceptions of Nurse Impairment Inventory (PNII) is the data collection tool which has been proved to be valid and reliable (Boulton & Nosek 2014:31). Registered and enrolled nurses are able to provide their perceptions on the phenomena under study because of their knowledge and experience in respect of substance use disorders

3.5 Population and sampling

Population refers to the entire set of individuals or objects that are of interest to the researcher (Polit & Beck, 2006: 260). Professional nurses and enrolled nurses were selected for the study as they have relevant knowledge and their scope of practice requires them to administer medication, although the enrolled nurses work under the supervision of a professional nurse (SANC 2005: R2598). Section 56 of the Nursing Act (2005, No 33) makes provision for professional nurses to assess, diagnose, and prescribe treatment up to schedule four, and to keep and supply medication for prescribed illness and health conditions.

The Medicine and Related Substances Act 101 of 1965, as amended, makes provision for professional nurses to prescribe up to Schedule Four medicines, as this category has low potential for abuse, provided that they are employed in the state public health primary level setting where there are no full-time employed medical practitioners. Nurses in these facilities must be authorised by the Director General from the Department of Health to prescribe. Professional nurses working in public hospitals have to follow doctors' protocols (Section 56 of the Nursing Act, 2005, No 33). The scope of practice of professional nurses enables them to administer medication and to control access to scheduled substances medication (schedules 5 to 6 according to the Medicine and Related Substances Act 101 of 1965, as amended).

An all-inclusive sample of the registered nurses and enrolled nurses working in the maternity units, psychiatry units, ICUs and operating theatres, who were available during the data collection period and who were willing to participate was recruited. These units have been found to predispose nurses to substance use disorder because of the availability of, and easy access to controlled substances as well as the demanding, high pressure and very stressful working conditions (Lockhart & Davis 2017: 40).

One hundred and four enrolled and professional nurses agreed to participate in the study. Questionnaires were delivered by hand to participants, and all completed questionnaires were usable for analysis.

3.5.1 Inclusion criteria

All professional and enrolled nurses who were on duty and willing to participate were selected for the study. The study population includes professional and enrolled nurses as well as nurses on duty.

Professional and enrolled nurses, according to the scope of practice for registered nurses (SANC 2005: R2598, as amended) they are authorized to administer scheduled medications. Enrolled nurses assist in administering medication under the supervision of the professional nurse.

3.5.2 Exclusion criteria

Professional and enrolled nurses not on duty during the study period, or on sick, annual, compassionate or maternity leave

Professional and enrolled nurses unwilling to participate in the study were excluded.

3.6 Data collection tool

A survey questionnaire was used in this study. This instrument is designed to elicit information from the respondents but does not afford an opportunity to interview participants to get broader information on the topic under study; the researcher has to ensure that all aspects relating to the phenomenon under study are reflected in the questionnaire.

The data collection tool was the Perceptions of Nurse Impairment Inventory (PNII) designed and developed by Hendrix, Sabritt, McDaniel and Field (1987, cited in Boulton & Nosek

2014:31; Kunyk 2015:59) in the USA. The tool is a Likert scale questionnaire which asks the participants to grade their views on impairment. The PNII was used in more than 60 studies in the USA within the five years after its development, and has produced accurate results (Boulton & Nosek 2014:31) The domains are scored and the higher score reflects positive attitudes towards chemically impaired nurses, and lower scores reflect negative attitudes. The PNII is divided into subscales as follows:

- “*Perception of recognisability* represents the belief that impairment is likely to be reported and can be detected through nurses’ behaviour”
- “*Orientation to the need to know* represents beliefs in the importance of awareness by peers and supervisors when a nurse is suspected of impairment”
- “*Disciplinary orientation* represents a belief involving the impaired nurse’s employment or licensure status”
- “*Helping orientation* centres on the responsibilities of the colleagues and managers and licensure boards to facilitate assistance for the impaired nurse”
- “*Treatability orientation* characterises a belief that impaired nurses can be helped and that they can be productive and trustworthy after treatment” (Boulton & Nosek 2014:31).

A demographic information sheet was designed by the researcher in which respondents were asked to provide information, such as age, gender, category, speciality and years of experience in nursing. They were also requested to provide information on whether they had encountered chemically impaired colleagues; if they themselves had been treated for substance use disorder and whether they had relocated within the past five years as explained in appendix 5.

3.7 Pilot study

A pilot study is a smaller study conducted prior to the main study, done to test the practical aspect of a proposed main study. It is done with participants who meet the inclusion criteria for the main study and data obtained from the pilot study may or may not be included in the main study (Brink, Van der Walt & Van Rensburg, 2012:174). The researcher conducted the pilot study in November 2017 after the approval to conduct a study was granted. The pilot study was conducted in another tertiary academic hospital with four respondents who met the inclusion criteria. One professional nurse worked in the Maternity section and the other in the ICU, and one Enrolled nurse worked in the Psychiatric Unit and the other in the

Operating Theatre. All four respondents gave informed consent and completed the questionnaire.

Respondents were requested to comment on the questionnaire with respect to whether it was understandable, easy to complete, and how long it would take to complete the questionnaire (estimated at approximately 10 minutes). No comments relating to adjustment were noted.

3.8 Validity and reliability

The reliability of an instrument is measured by its consistent ability to measure the concept being researched. The validity of an instrument is determined by how well the instrument measures the construct being examined (Polit & Beck 2006:329).

The perceptions in the nurse impairment inventory (PNII) is a five (5) level Likert attitude questionnaire (Hendrix, et al. 1987, in Boulton & Nosek 2014:31; Kunyk 2015:59). Its validity and reliability was also established by Hendrix et al., 1987 (in (Boulton & Nosek 2014:31). The PNII has a Cronbach's alpha coefficient reliability of 9.0. This suggests that the items in PNII have relatively high internal consistency. The PNII was used in more than 60 studies in the USA, within the subsequent five years. Its function has been to measure nurses' perceptions and it has produced accurate results (Boulton & Nosek 2014:31). Its stability has been derived through test-retest; the instrument measured the same scores and it has been used with a sample of people more than 60 times. Kunyk's study (2015:8) used the PNII to determine relationships between variables for which the p-value was 0.05.

3.9 Data collection

The researcher commenced data collection immediately after approval to conduct the study was received from the relevant authorities. The researcher visited the selected units to request permission to recruit nurses for the study. With the approval from operational managers, all nurses in the selected units who were willing to participate were given information leaflets, a consent form and were offered the opportunity to ask questions. The questionnaires were distributed to all respondents who consented to participate and who were on duty during the data collection periods. The process reduced the risk of preparedness from the respondents; they did not have an opportunity to discuss and to influence their view point. This exercise assured that the collected information is individual based. The risk of bias is reduced. In order not to compromise patient care, respondents were asked to complete the questionnaire during their lunch periods and return it immediately to the researcher.

There were respondents who decided not to complete the consent form, and gave verbal consent to participate in the study, as they preferred to remain anonymous. Completion of the questionnaire also indicates consent as the questionnaire was anonymous. Written consent was given by 69 respondents and verbal consent was obtained in the case of 35 respondents. Collection of the questionnaires immediately after completion was not always possible due to the high workload of the units. In the busy units the questionnaires were left with unit managers to distribute questionnaires to participants at a convenient time. These were collected the following day. Table 3.1 indicates the number of questionnaires completed during the different data collection periods.

Table 3.1 Data collection periods

Activity	Maternity	ICU	Theatre	Psychiatry	TOTAL
Week 1-2 Nov 2017	12	6	7	5	30
Week 3-4 Dec 2017	07	8	9	5	29
Week 4-5 Jan. 2018	10	10	13	-	33
Week 6: June 2018	6	6	-	-	12
TOTAL	35	30	29	10	104

3.10 Data management

After collection of the data the responses were prepared for analysis. Each questionnaire was coded with a number (1-104). Hard copies of the questionnaires were safely stored. Data was entered into Microsoft Excel. After entry the data was cleaned. Data cleaning involves checking typing errors, correcting mistakes, checking for missing data points, and searching for scores that are outside the range of the scale of an item, ensuring that the information captured on the spread sheet is accurate and ensuring that scores are within the range of the scale. A numerical value was assigned to each response on the instrument, including categorical and numerical variables. The researcher checked the entered data against the questionnaire to correct mistakes. An electronic working copy and a backup file were created to protect information from loss.

After the researcher was satisfied that there were no missing data for certain variables, the data on the spread sheet was transferred to the SPSS software. The data was managed by using a Statistical Package for the Social Sciences (SPSS) version 25. A statistician was consulted regarding the analysis of data.

The second step in data analysis was to describe the sample. The variables relevant to the sample included age, gender, category, speciality, and years of experience. The researcher examined the relationship between the above variables and the phenomenon under study. After the researcher had obtained a complete picture of the sample, the frequencies of the descriptive variables related to the sample were obtained.

The statistician described the location of a distribution by using a typical value, a number expressing the central value in a set of data. The mean is calculated by dividing the sum of the values in the set by their number (Burns & Grove 2011:327). The standard deviation of the mean is the most commonly used measure of the spread of values in a distribution and is calculated as the square root of the variance (the average squared deviation from the mean). The mean and standard variables related to the sample were calculated.

Data significance and responses from PNII were entered into the SPSS software analysis programme. Respondents' views were categorised according to their response to PNII. This allowed a calculation of mean and standard deviations for each group. Descriptive statistics were used to characterise the subjects. The descriptive analysis of views on impairment due to substance use among nurses allowed for a summary of frequencies and means for the selected variables. When describing responses on Likert-type scales, the years of experience of the respondents were grouped to examine divergence. A Pearson correlation coefficient was used to measure the relationship between variables: years of experience and their perceptions on stress as a contributory factor to stress. Correlation coefficients were used to analyse selected demographic characteristics e.g. age average category. A test-retest was conducted to validate the results.

3.11 Ethical considerations

Approval for the study was obtained from the Health Research Ethics Committee of Stellenbosch University, Reference number: S17/08/2017 and approved on 07 November 2017, and from the Gauteng Provincial Research Committee. The Province communicated with the respective hospital and the approval from the selected Johannesburg academic

hospital to conduct the study was obtained on 21 November 2017 (Reference number: NHRD: GP 201711_012).

The study complied with the following ethical considerations:

3.11.1 Right to self-determination

The respondents were given detailed information about the study, including the data collection process, protection of identity and the reporting of the study results. They were informed that participation in the study was voluntary and were requested to sign an informed consent form before participation in the study. Those who preferred not to sign consent were included as the completion of the anonymous questionnaire was regarded as consent.

3.11.2 Right to confidentiality and anonymity

The researcher maintained confidentiality. Data collected was not shared and was only available to the researcher, supervisor and statistician. The names of the respondents were not used anywhere in the report and numbers were allocated to each respondent's questionnaire. The researcher, however, kept the respondents' names and codes in a separate list for reference.

3.11.3 Right to protection from discomfort and harm

The right to be protected from discomfort and harm while participating in a study, supports the ethical principle of beneficence, which states that one should do good and prevent harm. The respondents were informed beforehand about the potential impact of the study on health services and systems. Respondents were assured that the information they provided was not going to be shared with any person, including their managers without their prior approval. The researcher complied with the principles of the Declaration of Helsinki (World Medical Association 2013:3).

The principle of justice is the unifying principle in health and nursing ethics. It includes the principle of resource allocation and fairness. Justice, therefore, "refers to the health care practitioners' responsibility to enforce justice with equal distribution of benefit to all people" (Pera & Van Tonder 2011:57). The respondents were treated fairly and equally without discrimination.

The study was not experimental but, the topic is sensitive. Although there were minimal risks, the respondents may have felt emotionally overwhelmed, or have experienced distress. If this had occurred respondents would have been referred for counselling at the public hospital services.

There were no costs involved for the respondents, and there were no payments or incentives offered to the respondents. The study did not benefit the respondents directly but has the potential to provide information which may be useful to the nursing profession.

3.12 Summary and Conclusion

The study aimed to explore nurses' perceptions on impaired nursing practice due to substance abuse, using a quantitative, descriptive cross-sectional survey and the Perceptions of Nurse Impairment Inventory. Professional and enrolled nurses working in selected clinical areas were selected for the study as they have knowledge of the phenomenon under study and their scope of practice makes them eligible to administer medications including scheduled drugs. An all-inclusive sample of registered nurses and enrolled nurses working in the maternity, psychiatric, intensive care units and operating theatres, who were available during the data collecting period were recruited. These units have been found to predispose nurses to substance abuse because of the availability and the easy access to prescribed medication. One hundred and four nurses agreed to participate in the study. Ethical considerations were observed during the study. Data was analysed with the help of a statistician and the results were interpreted.

Chapter 4

Presentation of Results

4.1 Introduction

This chapter describes the analysis and interpretation of the research findings. The aim of the study was to explore nurses' perceptions of impairment in nursing practice due to substance use among nurses. Table 4.1 shows the distribution of respondents by clinical unit.

Table 4.1 Distribution of respondents

Hospital Units	Maternity	ICU	Theatre	Psychiatry	Total n
Professional Nurses	n = 25	n = 24	n = 24	n = 7	80
Enrolled Nurses	n = 10	n= 6	n= 5	n= 3	24
Total	35	30	29	10	104

Most respondents thirty five (35) in the study were located in maternity units. Thirty (30) respondents were employed in ICU; Twenty nine (29) respondents were working in the operating theatres and ten (10) were working in the psychiatric unit. These areas of nursing practice, according to Bettinard-Angres and Rodrigo (2015:47), are likely to have a high prevalence of substance use-related disorders because they are considered to be demanding, pressured and stressful and there is also relatively easy access to scheduled substances.

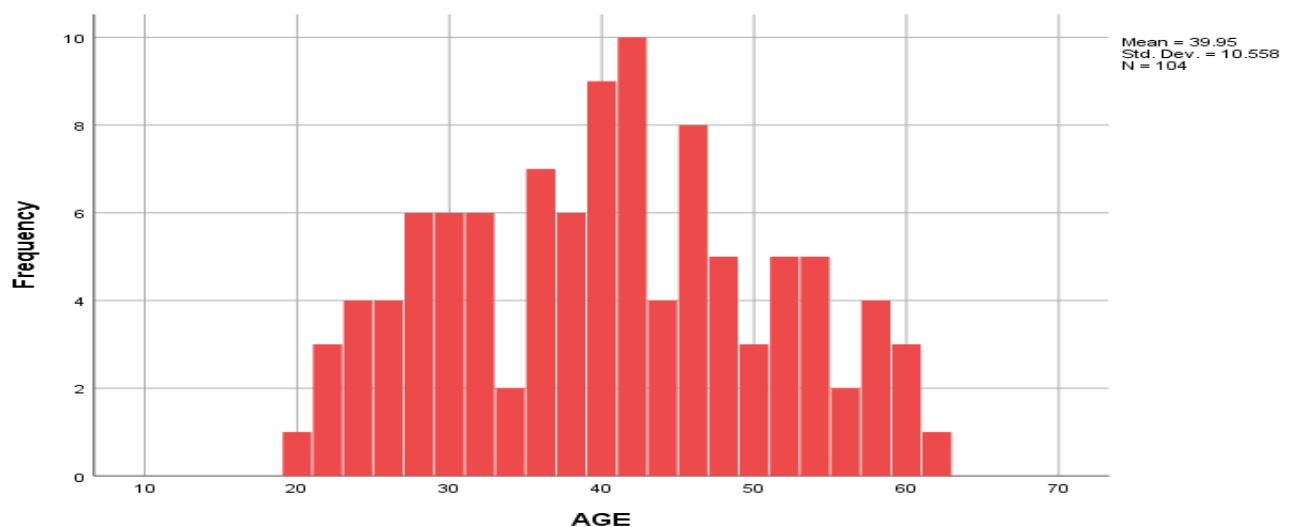
4.2 Demographic data

This section presents the demographics data of the respondents. Eighty-five (82.5%) of the respondents were female and 18 (17.5%) were male. Nursing in South Africa is dominated by females. The percentage is similar to the SANC statistics of the nursing population in South Africa (SANC 2017). Seventy-eight (75.7%) of the respondents were registered nurses and there were 26 enrolled nurse respondents (23.3%). There was a wide range of experience in the respondents, from one year to 45 years as shown in Table 4.2.

Table 4.2 Respondents' years of experience

N	Valid	104
	Missing	
Mean		13.74
Median		10.00
Std. Deviation		9.839
Minimum		1
Maximum		45
Percentiles	25	7.00
	50	10.00
	75	20.00

The fourth question was about the age of the respondents. The respondents ages ranges between 20 to 61 years. Respondents with 35 to 45 were majority. Most of the respondents above the age of 50 years were female. Most of the participants above the age of 50 years they were reflecting strong agreements on the questions. This is a reflection of the professional maturity, insight and experience they have on the subject and they had confidence in expressing their views. The graphic representation of age average is presented on a histogram below.

**Figure 4.1 Age range of the respondents**

With respect to marital status (Question 5), the majority of the respondents were married (54%), 42% of the respondents were single, 4% divorced and 3% were widows. No significant difference was noted in the responses in respect of marital status. Lengel (2017:2) has reported that widowed and divorced people, in coping with loss, are vulnerable to substance abuse. The majority (88.3%, 91) of the respondents reported that they had not relocated during the five years previous to the study (Q6). Frequent changes in employment and location are risk factors for substance abuse in nurses (Lengel 2017:2). None of the respondents (Q7) were receiving treatment for substance abuse at the time of the study.

Respondents were asked in Question 8 whether they had ever worked with a substance abusing nurse. The aim of the question was to ascertain the level of awareness of the prevalence of substance abuse among nurses. One-quarter (25.2%) of the respondents indicated that they had worked with a substance abusing nurse.

Respondents were asked in Question 9 whether patient care could be affected as a result of impaired nursing practice. Nearly one-third (31.1%) of the respondents believed that patient safety could be compromised by impaired nursing practice. Only 10% of the respondents had never worked with a substance abusing nurse, but their perception was that impaired nursing practice has a negative effect on patient care. Table 4.3 below reflects nurses' response to this question (Q9).

Table 4.3 Perceptions of effects of impairment on patient care

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid No	72	68.9	68.9	68.9
Yes	32	31.1	31.1	100.0
Total	104	100.0	100.0	

4.3 Perceptions of Nurse Impairment Inventory Questionnaire

Section B of the data collection tool was the PNII questionnaire. The questions are close-ended and required the respondents to rate their level of agreement with the statements relating to perceptions of nurse impairment. Table 4.2 shows how nurses perceive

impairment. Below is the summary of how nurses responded to the questionnaires and views are categorized according to their responses.

4.1.1. Perceptions of Nurse Impairment Inventory Questionnaire

		strongly disagree	disagree	partially agree or disagree	agree	strongly agree
Q1. Impairment a reflection of a stressful environment	Count	5	9	11	42	36
	Row N %	4.9%	8.7%	10.7%	40.8%	35.0%
Q2. Individuals already had encountered problems before becoming nurses.	Count	4	13	24	41	21
	Row N %	3.9%	12.6%	23.3%	39.8%	20.4%
Q3. Impairment can be understood as illness	Count	3	9	17	53	21
	Row N %	2.9%	8.7%	16.5%	51.5%	20.4%
Q4. Supervisor has a responsibility to assist impaired nurses	Count	1	2	1	46	53
	Row N %	1.0%	1.9%	1.0%	44.7%	51.5%
Q5. Colleagues should know if a nurse is receiving treatment	Count	3	19	16	36	29
	Row N %	2.9%	18.4%	15.5%	35.0%	28.2%
Q6. That impaired nurse's license be revoked	Count	19	44	14	19	7
	Row N %	18.4%	42.7%	13.6%	18.4%	6.8%
Q7. The help needed by impaired nurses usually requires the type of insight which only other nurses are likely to provide	Count	4	19	19	58	3
	Row N %	3.9%	18.4%	18.4%	56.3%	2.9%
Q8. The supervisor has a responsibility to suspend that nurse pending investigation,	Count	14	34	21	27	6
	Row N %	13.7%	33.3%	20.6%	26.5%	5.9%
Q9. Impairment is a widespread problem among nurses	Count	10	23	37	23	10

		strongly disagree	disagree	partially agree or disagree	agree	strongly agree
	Row N %	9.7%	22.3%	35.9%	22.3%	9.7%
Q10. agencies should be required to provide EAP which could serve the impaired nurse	Count	3	3	15	52	30
	Row N %	2.9%	2.9%	14.6%	50.5%	29.1%
Q11. to publish the names of all nurses found to be impaired	Count	31	37	11	19	5
	Row N %	30.1%	35.9%	10.7%	18.4%	4.9%
Q12. Impairment in nurses occurs less frequently than other health-related fields	Count	11	12	50	22	8
	Row N %	10.7%	11.7%	48.5%	21.4%	7.8%
Q13. There is little that can be done to help those nurses who are impaired.	Count	23	37	10	27	6
	Row N %	22.3%	35.9%	9.7%	26.2%	5.8%
Q14. The regulatory body's responsibility should include offering nurses referral to sources of assistance.	Count	1	5	7	51	39
	Row N %	1.0%	4.9%	6.8%	49.5%	37.9%
Q15. While receiving treatment, most impaired nurses are capable of continuing to work as registered nurses	Count	1	17	18	46	21
	Row N %	1.0%	16.5%	17.5%	44.7%	20.4%
Q16. Becoming impaired is something that could happen to any nurse	Count	6	7	27	34	29
	Row N %	5.8%	6.8%	26.2%	33.0%	28.2%
Q17. Nurses have obligation to notify the supervisor when they suspect impairment in co worker	Count	4	9	11	51	28
	Row N %	3.9%	8.7%	10.7%	49.5%	27.2%
Q18. I could probably recognise an impaired nurse in the work place by his/her appearance or behaviour	Count	6	15	9	49	24
	Row N %	5.8%	14.6%	8.7%	47.6%	23.3%

4.3.1 Results for the Perceptions of Nurse Impairment Inventory Questionnaire

4.3.1.1 Impairment as a reflection of stressful environment

The first question (Q1) of the PNII asked respondents if impairment is a reflection of a stressful work environment. Respondents who strongly disagreed comprised 4.9 %; disagreed 8.7 %; agreed; partially agreed or disagreed 10.7%; agreed 40.8% and strongly agreed 35.0%. Perceived stress is a predisposing factor to substance-related disorders and impaired nursing practice (Bozimowski, et al. 2014:84).

4.3.1.2 Individuals who encountered problems before becoming nurses

The second question (Q2) of the PNII asked if individuals had encountered problems before becoming nurses. Respondents who strongly disagreed comprised 3.9 %; disagreed 12.6 %; agreed; partially agreed or disagree 23.3%; agreed 39.8%; strongly agreed 20.4%. Most respondents agreed that most nurses had challenges and they may have been involved in substance abuse before entering the nursing profession.

4.3.1.3 Impairment can be understood as illness

Respondents were asked in question 3 (Q3) if impairment should be understood as an illness. Respondents who strongly disagreed comprised 2.9 %; disagreed 8.7 %; agreed; partially agreed or disagreed 16.5%; agreed 51.5% and strongly agreed 20.4%. There was strong agreement with this statement with the minority of the respondents disagreeing with the statement. The study conducted by Boulton and Nosek (2014:30) supports the opinion that impairment should be viewed as an illness.

4.3.1.4 Responsibilities of the supervisor with respect to the impaired nurse

The response to question 4 (Q4) (Q) showed that there was very strong agreement that supervisors have a responsibility to help an impaired nurse (44.7% agreed; 51.5% strongly agreed; 1.9% disagreed and 1% strongly disagreed).

4.3.1.5 Should colleagues know if a nurse is receiving treatment?

In response to question 5 (Q5) respondents had a wide range of opinions: 2.9 % strongly disagreed; 18.4 % disagreed; 15.5% partially agreed or disagree; 35% agreed and 28.2 % strongly agreed. The majority of respondents felt that they should know whether a nurse is receiving treatment for substance use disorder. However, open-ended comments in respect of this question did note that confidentiality must be maintained at all costs.

4.3.1.6 Should an impaired nurse's license be revoked?

Respondents were asked in question six (Q6) if nurses' licenses should be revoked by regulatory bodies should they be proved to be impaired. Respondents who strongly disagreed comprised 18.4 %; 42.7 % disagreed; 13.6% were neutral; 18.4% agreed; and 6.8 % strongly agreed. The results indicate that the majority of the respondents did not support the statement. This response suggests that they believed that the relevant regulatory bodies should not revoke the licences of impaired nurses.

4.3.1.7 The help needed by impaired nurses

Respondents were asked in question 7 (Q7) whether the help needed by an impaired nurse requires the type of insight that is likely be provided by other nurses. Only four (3.9%) respondents strongly disagreed; 18.4 % disagreed; 18.4% were neutral; 56.3% agreed; and 2.9% strongly agreed. The results indicate that majority of nurses agrees with the statement which suggest that an impaired nurse requires assistance. The results of a study by Cadiz, Truxillo and O'Neill (2015:797) support the belief that there is a need for the education of health professionals in being able to manage substance-related disorders.

4.3.1.8 Role of supervisors

Respondents were asked in question 8 (Q8) whether the supervisor has a responsibility to suspend an impaired nurse pending an investigation. Fourteen respondents (13.7%) strongly disagreed; 33.3 % disagreed; 20.6 % were neutral; 26.5% agreed; and 5.9% strongly agreed. The results show that 32.40% agreed and 47% disagreed. The results show an interesting variation in responses.

The statement is in line with the SANC regulation (R1099) which states that "whenever it appears that the practitioner who is registered in terms of the nursing Act 33 of 2005 is impaired and poses a danger to the public, the Council may suspend him or her for the period of 90 days pending inquiry".

4.3.1.9 Perception of the Prevalence of impairment among nurses

Respondents had mixed feelings about the prevalence of impairment among nurses (Q9) (Graph 4.2). 9.7% strongly disagreed; 22.3 % disagreed; 35.9 % were neutral; 22.3% agreed and 9.7% strongly agreed. This range of responses may be a reflection that of lack of knowledge or awareness of this issue. The results are illustrated below in figure 4.2

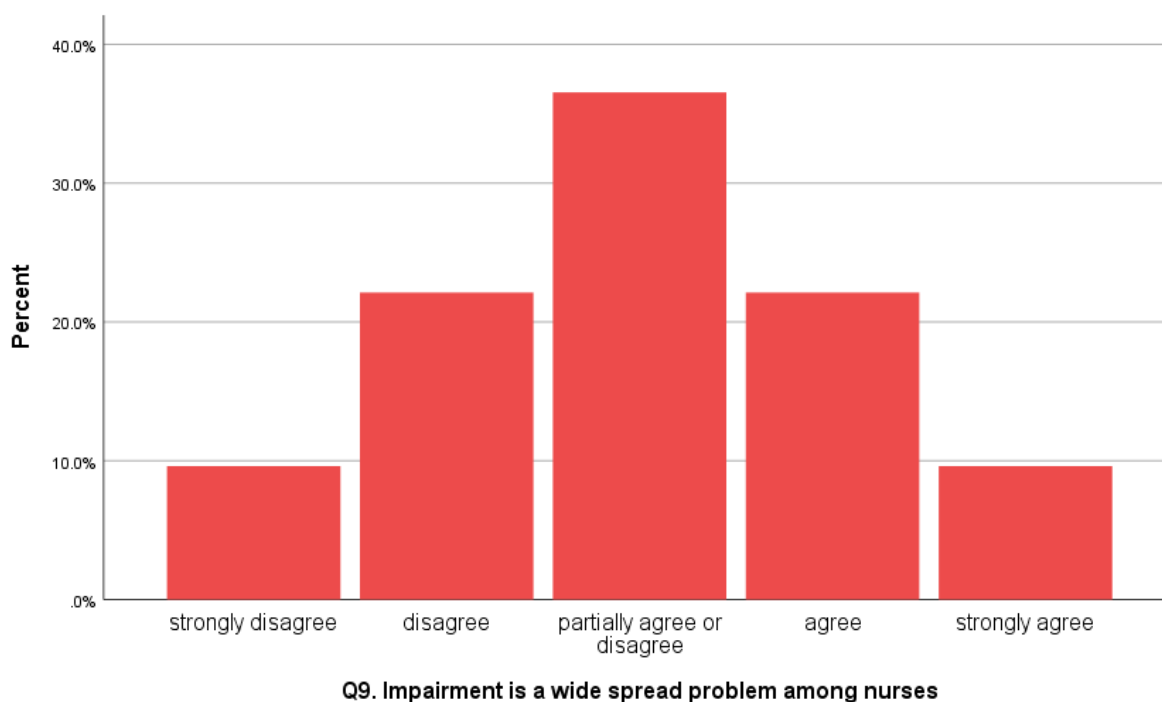


Figure 4.2 Wide-spread problem

4.3.1.10 Role of health care agencies

Question ten (Q10) asked if nursing agencies should be required to provide EAP for substance related impaired nurses. The majority of respondents supported this statement. 2.9 % strongly disagreed; 2.9 % disagreed; 14.6% were neutral; 50.5% agreed and 29.1 % strongly agreed.

4.3.1.11 Publication of the names of impaired nurses by regulatory bodies

Question eleven (Q11) asked if regulatory bodies should continue to publish the names of substance-related impaired nurses with the object of protecting the public. Respondents who strongly disagreed comprised 30.1%; 35.9 % disagreed; 10.7% were neutral; 18.4% agreed; and 4.9% strongly agreed. The results are illustrated in graph 4.13. The majority of the respondents were of the view that regulatory bodies have the responsibility to offer referral to the sources of assistance for nurses with substance-related impairment (Q14).

4.3.1.12 Impairment in nurses versus other health practitioners

Question twelve (Q12) asked if substance-related impairment occurring in nursing takes place less frequently than other health-related problems. Eleven (10.7 %) respondents strongly disagreed; 11.7 % disagreed; 48.5% were neutral; 21.4% agreed and 7.8 % strongly agreed. The results show that respondents are not certain whether substance-related impairment is more predominant among nurses than among other health professionals.

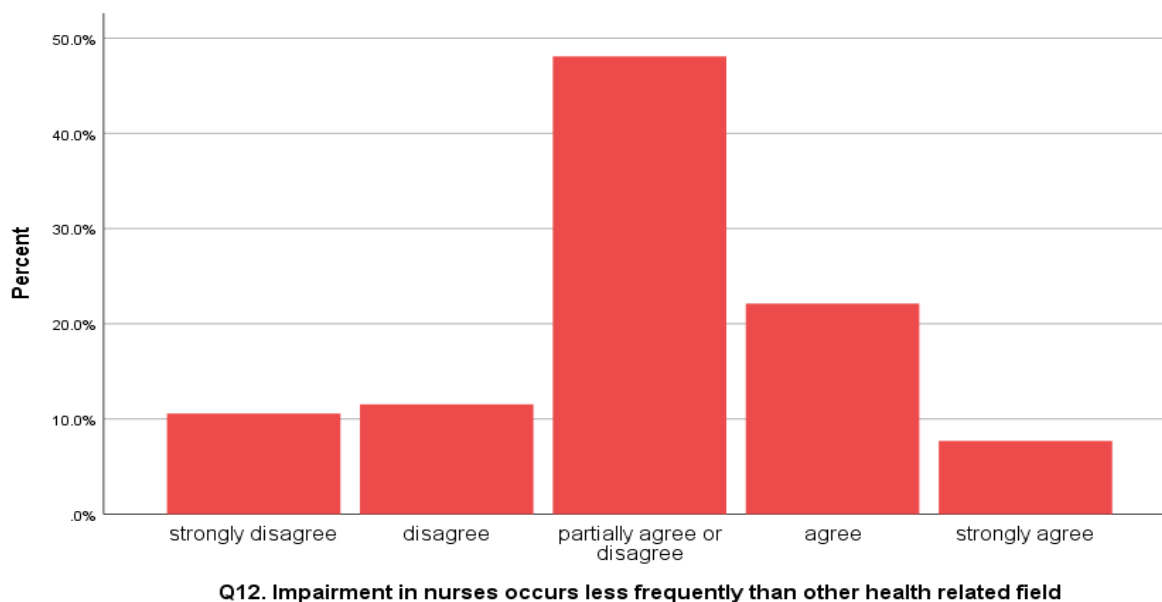


Figure 4.3 Impairment in nurses versus other health practitioners

4.3.1.13 Assistance for impaired nurses

Question thirteen (Q13) asked if there is little that can be done to assist nurses with substance related impairment. The aim of the question was to assess if nurses were of the opinion that a nurse with substance related disorders can be assisted. The majority of the respondents disagreed with the statement. 22.3 % strongly disagreed; 35.9 % disagreed; 9.7% were neutral; 26.2% agreed and 5.8 % strongly agreed.

4.3.1.14 Responsibility of the Regulatory body

The results suggest that respondents support the statement that regulatory bodies should offer assistance by referring impaired nurse practitioners to rehabilitation facilities. Respondents who strongly disagreed comprised 1%; disagreed 4.9 %; agreed; partially agreed or disagreed 6.8%; agreed 49.5% and strongly agreed 37.9%.

4.3.1.15 Functioning of impaired nurses

The results suggest that respondents are in agreement that most nurses with substance-related impairment are capable of continuing working while receiving treatment (Q15). Only 1% strongly disagreed and 16.5 % disagreed whereas 17.5 % were neutral, 44.7% agreed and 20.4% strongly agreed.

4.3.1.16 Who can be impaired?

Respondents were of the opinion that becoming impaired with substance-related disorders can happen to anyone (Q16). Only 1% strongly disagreed; 16.5 % disagreed; 17.5% were neutral; 44.7% agreed and 20.4% strongly agreed. The statement is supported by international studies which indicate that everyone is susceptible to substance-related impairment regardless of social status or level of education (Boulton & Nosek 2014:01).

4.3.1.17 Obligation of nurses to notify the supervisor

Three-quarters (76.7 %) of the respondents are agreed that nurses have a responsibility to report their co-worker to their supervisor when they suspect that he or she is suffering from a substance-related impairment (Q17). The results show that 3.9% strongly disagreed; 8.9 % disagreed; 10.7 % were neutral; 49.5% agreed; and 27.2 % strongly agreed. The findings of studies including the study by Ross, et al., (2017: 1) support the opinion that co-workers have a responsibility to report to their supervisors should they suspect impairment.

4.3.1.18 Signs and symptoms of impaired colleagues

The majority of the respondents were confident that they were able to recognise an impaired nurse in the work place by his or her appearance or behaviour. The results indicated that 5.8% strongly disagreed; 14.6 % disagreed; 8.7 % were neutral; 47.6% agreed and 23.3 % strongly agreed. Of note is that not only professional nurses felt that they could recognise impairment in a nursing colleague, this was also noted in the responses of enrolled nurses.

4.4 Results for PNII subscales

The perception of nurse impairment inventory (PNII), designed and developed by Hendrix, et al. (1987), is a factor analytic technique to identify perceptual dimensions of nurse impairment.

4.4.1 Discipline orientation

Nearly half (47%) of the respondents showed disagreement with the statement that impaired nurses should be suspended pending investigations while 20.6 % were neutral. Sixty-one per cent (61.1%) of respondents disagreed with the statement which suggests that the licenses of impaired nurses should be revoked. Two-thirds (66%) of the respondents did not agree with the statement which suggested that regulatory bodies should publish the names of impaired nurses. The majority of the respondents perceived discipline as a measure that they would not recommend to minimise nurse impairment.

4.4.2 Impairment as an illness

The majority of the respondents perceived impairment as an illness; 70.1% of respondents agreed to the statement that impairment can be understood as illness.

4.4.3 Treatable orientation

More than half (58.2%) of the respondents disagreed while 32.2% agreed with the statement that there is little that can be done to assist the impaired nurse. Sixty-one per cent (61.1 %) supported the statement which suggests that a nurse can continue to work while receiving treatment. Majority of the respondents perceived impairment due to substance use as a treatable disease.

4.4.4 Orientation to helping

The majority (84.7%) of the respondents agreed with the statement that suggested that regulatory bodies should assist in referring impaired nurses to rehabilitation facilities. Most of the respondents (96%) agreed with the statement which suggested that the supervisor should assist an impaired nurse. The majority (79.6%) of the respondents agreed with the statement which suggested that nursing agencies should refer impaired nurses for EAP. Respondents perceived that nurses who are impaired need to be assisted.

4.4.5 Orientation to need to know

Respondents perceived that there is a need for information sharing and imparting insight about substance-related disorders. 59.2% agreed with the statement which indicates that the help needed by impaired nurses requires the type of insight which is likely to be provided by other nurses.

4.4.6 Perception of recognizability

Respondents perceived that they can identify the signs and symptoms of impairment in nurses in their work place. The majority (70.9%) of the respondents responded that they could recognise an impaired nurse in the work place by his or her behaviour.

4.5 Open-ended comments from respondents

The PNII questionnaire provided the space for the respondents to comment on the phenomenon under study. Twenty-five respondents offered comments. The comments from the respondents explained the factors contributing to substance use disorder, the implications for the public and the measures that could be put in place to minimise the substance abuse problem.

Respondents indicated that they felt that nurses with a substance use disorder have stressful life situations, such as family, financial and occupational stresses, which may lead to substance abuse. The quote from one respondent stated that:

“Impairment is a condition that can affect anyone of any profession who is overwhelmed by problems and made a wrong choice of coping with situation” (R43).

Respondents suggested that nurses with substance use disorder need referral for rehabilitation and employee assistance programmes and should be monitored for progress by their supervisors:

“Nurses with substance abuse problem need help and should not be judged, because substance abuse is a cry for help”(R76). Another respondent (R103) suggested that *“counselling and debriefing services should be provided to nurses working in high risks areas like psychiatry, ICU, Operating theatre, medical wards and Oncology”.*

They further suggested that supervisors should assist by removing nurses with substance-related impairment from units with easy access to scheduled medication to avoid temptation. Employers should ensure that the working environment is conducive and their staff members are paid better salaries

Respondents indicated that nurses with substance abuse problems should not be punished or suspended but should be treated with respect as they need help. Suspension should only be implemented if a nurse has not complied with the treatment programme and it has been found that her nursing practice is unsafe and incompetent. One respondent commented:

“There is no need to suspend nurses who are impaired, unless they refuse help and continue to be offenders” (R2).

It was suggested that nurses who were still functional should be supported and continue to be employed during the rehabilitation process.

Respondents indicated that nurses who abuse substances are able to hide their condition and they are identified at a later stage. Thus, it is important for staff to have the knowledge to identify the symptoms of substance abusing nurses so that they can be referred for rehabilitation at an early stage of the addiction. (R33). They commented as follows:

“Suggested that it is the responsibility of the employer to identify the problem in the facility prior damage”.

(R11) indicated that

“Nurses in general should be screened for substance-related disorders even if they are functional in the unit to detect the problem early, and nurses should undergo medical examination annually like in the Army”

Some respondents suggested that supervisors have the responsibility to do research on factors contributing to substance abuse, they do background checks on their employees’ family history and show interest in their social life. (R16) suggested that

“All health institutions must have research committees to investigate the causes of substance related impairment and what can be done to avoid this on-going problem”

(R1) indicated that

“Supervisors need to emphasize the substance abuse issue to the staff regularly”.

Respondents indicated that supervisors should educate their staff on substance abuse; how to recognise a substance abusing nurses, and reporting a suspected substance abusing nurses so that he or she can be assisted.

Measures suggested by the respondents which could be instituted to minimise substance abuse problems include the following:

- Nurses should be encouraged to report social challenges to their supervisor so that risks in respect of substance abuse problems can be identified early and assisted accordingly.

- The employer has a responsibility to refer such nurses for rehabilitation and the employer should consider the wellness of their employees by ensuring that their working conditions are conducive and employees are well paid.
- Nurses must be supported and their dignity should be protected at all times during the rehabilitation process.
- The employer should consider offering debriefing services to all staff working in highly demanding units.
- Medical testing should be done prior to employment and random drug tests should be conducted on suspected nurses working in high pressure units.

4.6 Summary

The results show that the respondents were of the opinion that impairment should be regarded as an illness that can be treated. Stress has been perceived by many participants as a factor contributing to substance use disorder and impaired nursing practice. Respondents are of the opinion that supportive and non-disciplinary approaches should be implemented to manage substance use disorder.

The majority of the respondents emphasised the responsibility helping impaired nurses and there was little support for disciplinary action. On the obligatory responsibility of nursing agencies, most respondents supported that the agencies should assist impaired nurse receive treatment. Although some nurses supported the idea that policies that address impairment issues must be put in place and be enforced by regulatory bodies. Respondents showed agreement with the statement that suggests that impaired nurses should be reported by colleagues on suspicion of substance-related problems.

Respondents were in agreement with the statement which suggested that the help needed by impaired nurses usually requires the type of insight which only other nurses are likely to provide. This suggests that respondents agreed that there is a need for information sharing and education on substance-related disorders. The majority of respondents perceived that they could recognise impaired nurses by their behaviour at work.

The respondent's comments showed support for nurses who are impaired, and the opinion that such nurses should not be punished but be rehabilitated. Some suggested that measures should be put in place by employers to determine whether practitioners and their prospective employees are fit to practice.

Chapter 5

Discussion, recommendations and conclusions

5.1 Introduction

The current study has explored nurses' perceptions about impairment due to substance use in a selected setting in Gauteng province. One hundred and four nurses responded to the questionnaire which was aimed at measuring their perceptions about impaired nursing practice among nurses who abuse substances. The study's objectives were as follows:

- To explore nurses' perceptions of impairment due to substance abuse in a selected setting in Gauteng province
- To explore nurses' opinions about measures that can be taken to minimise the problem.

The discussion that follows attempts to explain how the objectives of the study were addressed. The limitations of the study, recommendations, the conceptual model and concluding comments are presented.

5.1.1 Nurses' perceptions of impairment due to substance use in a selected setting in Gauteng province

Objective 1 addressed the question of nurses' perceptions of impairment due to substance abuse in nursing practice.

Registered nurses showed more understanding of impairment due to substance use than some of the lower categories of enrolled nurses. Some of the enrolled nurses needed a brief explanation of the phenomenon in order to complete the questionnaire. The study results showed that there is a need for the nursing community to gain insight into substance use disorder. The study results indicated the need for improved awareness and understanding of substance use disorders.

Substance use impairment was perceived to be a reflection of stressful situations at work, at home or elsewhere. Stress was viewed as contributory factor to substance related disorders and impairment, which was also noted by (Boulton and O'Connell 2017: 410).

A few respondents perceived that substance abuse in nursing was rare, and had not seen evidence of this. This may be due to a lack of awareness about the problem. Few respondents had worked with a substance abusing nurse. This may be an indication that not many cases of substance related disorders are reported in in the institution, or a lack of awareness. Studies worldwide have suggested that 14 % of the nursing population is affected by substance related disorders and 8% thereof are impaired (Strobbe & Crowley 2017: 104; Cadiz, et al., 2012:413; Darbro 2011:1).

The ability of respondents to recognise colleagues who are abusing substances is important to ensure quality care and to minimise risk. In the current study, the majority of the respondents felt that they would be able to recognise the signs and behaviour which indicates the possibility of abuse. Although most respondents had not worked directly with a nurse whose nursing practice was impaired by substance abuse, they were aware of the risks that an impaired nurse poses to his or her patients. Watkins (2010:27) found that nurses with impairments pose risks to patient safety.

Knowledge of substance related disorders is important for managers so that they are able to put measures in place to manage the condition. Respondents agreed that the manager has the responsibility to help the impaired practitioner; however a few responses indicated that according to their personal experience, little was being done to help impaired nurses. This suggests that the support for substance abusing nurses could be improved. Studies have reported that nurse colleagues may choose not to report a substance abusing nurse because of uncertainty. In addition, supervisors may choose not to refer the nurse for rehabilitation due to the cost-benefit of such treatment (Brailon 2014:41; Cares, et al. 2015:63; Watkins 2010: 26).

Impaired nurses were generally perceived to have an illness. If impairment is perceived as an illness, people who are ill should not be discriminated against based on their condition. Nurses with substance related impairment should be supported, and be referred for treatment so that they can return to work as safe practitioners (Stewart & Mieller 2018: 134).

Nurses in a selected setting in Gauteng perceived impairment due to substance abuse as an illness which can be treated. Their views show that they are aware of the prevalence of the disease among the nursing community and that stress can be a factor contributing to the problematic disease. Furthermore, impaired nursing practice may have a negative impact on patient safety.

5.1.2 Nurses' opinions about measures that can be taken to minimize the problem

This objective aimed to explore nurses' opinions about measures that can be taken to minimize the problem. The perceptions of nurse impairment inventory suggested measures that could be put in place to minimize the problem of impaired nursing practice due to substance abuse. The suggested measures stipulate the responsibility of the employer towards the impaired nurse, the role of the regulatory bodies and the responsibilities of nurse practitioners.

Watkins(2010: 27) reported that employers tended to view nurse impairment as a misconduct, low morale and unethical conduct, as a result nurses who were impaired due to substance use were subjected to disciplinary hearings, be suspended from practice and their employment contracts terminated and reported to regulatory bodies to have their licenses revoked. The current study has found that nurses perceive substance related impairment as an illness that can be treated and they agree that the employer has a responsibility to support impaired nurses by treating them with dignity and referring them for rehabilitation. The Code of Ethics for the nursing profession prescribes that nurses should be competent and be safe practitioners. When nurses are found to be having substance related impairment, regulatory bodies are responsible for determining if practitioner is fit for work the regulatory bodies may decide to engage a nurse in an alternative to discipline programme to assist the nurse (McNeils, et al., 2011:46).

The study showed that nurses should gain insight into substance related disorders so that they understand the dynamics and the effects of the disease and know how to manage the problem. They should be aware that anyone can be affected by the disease and that they have a responsibility to report their colleagues if they suspect that they are affected by the disease so that they can be assisted. Studies suggest that education on substance-related disorders should be taught at nursing colleges and in-service training and awareness campaigns should be conducted. Studies further support the idea that nurses have a responsibility to alert their manager if they suspect that their colleagues are abusing substances (Cadiz, et al., 2012:414).

Nurses supported the measures suggested in the questionnaire that could be put in place to minimize substance abuse problems. These include: education on substance-related disorders; employers should assist nurses by referring them to EAP and the regulatory bodies should assist nurses by referring them to the relevant sources of help; and nurse practitioners have

the responsibility to report a colleague to their managers should they suspect that he or she is impaired (Kirkpatrick & Boyd 2018:87).

5.1.3 Stuart Conceptual Model

Nurses are exposed to various challenges and stressors which may be psychosocial and occupational. A study by Monroe et al., (2013:10) suggests that nursing is a highly stressful occupation with no legal protection. Nurses, therefore, require coping measures to deal with those day-to-day challenges. The study by Lengel (2017:2) suggests that individuals may feel hopeless when coping skills are ineffective and need immediate relief from emotional pain. Inability to cope may result in some lack of interest in nursing. If the nurse has limited choices in relation to employment and cannot adapt, or the coping mechanisms fail, they are likely to display maladaptive patterns of behaviour which may include the abuse of controlled substances. The result is impairment in nursing practice. The theory explains the unique relationship of people's responses to their environmental stressors that result in maladaptive responses and impairment (Stuart 2013:44-56). The results of the current study support the Stuart conceptual model concepts which indicate that if a person's coping mechanism is ineffective, the person displays maladaptive kinds of behaviour by abusing substances. In this study, the results showed that the majority of respondents supported the view that substance-related impairment is a reflection of a stressful environment. Furthermore, the majority agreed that while receiving treatment, most impaired nurses are capable of continuing to work as registered nurses, which shows that support enhances practitioners' coping skills. Practitioners need to be supported because punishment aggravates the substance-related disorders.

5.1.4 Strength and limitations

5.1.4.1 Strengths

Strength of this study was that the research explored issues that are timely and relevant to the nursing profession. The study provided information about nurses' substance use and co-morbid mental health illness in the work place; and how the organisations can recognise problems so that nurses are provided with treatment, thus ensuring safe practice. Other studies on the phenomenon shared the same views on the significance of the substance abuse problem, contributory factors, signs and symptoms and managing the problem (Thomas & Siela 2011:7). The research findings could inform the nursing profession and employers on a need for more research to explore more aspects of substance use disorder among nurses. The

data collected were all self- reported and represent the perceptions of the respondents. Although the sample was small the required saturation was reached.

5.1.4.2 Limitations

The study was limited as population selected was small; therefore one cannot suggest that the views of those who participated represent the views of the total nursing community in the Province. The external validity was threatened by the fact that there is no way of knowing whether those who agreed to participate in the study would have shared the same characteristics as those who did not participate.

The scale included closed- ended questions but the researcher improvised by providing the space for the respondents to write their own comments.

5.2 Recommendations

Recommendations are based on the results of the research study and the comments from the participants. The results indicated that stress is a major predisposing factor to substance use disorder. There are suggested measures that can be put in place to manage stress in health institutions. Recommendations are categorised as pertaining to practice, policy, education and further research.

5.2.1 Recommendation for Practice

Measures should be put in place to minimize work- related stress; and, on the other hand, the employer, with due regard for patient safety, should create a positive practice environment which promotes a healthy work life which includes the following:

- The employer should initiate interventions that aim to support the well-being of workers and enable them to manage their work-related stress, thus supporting the psychological well-being of workers.
- Health workers' rights should be protected (section 20 of the Health Act No. 61 of 2003). The organizational culture in the nursing profession which tends to condone tolerance for abusive patient behaviour warrants concern and should be discouraged.
- Develop policies and implement communication strategies to facilitate open channels of communication so that nurses are able to report their colleagues when they suspect substance abuse.

- Given the fact that mental health challenged individuals may be impulsive it will be of help if managers minimize temptations by developing and implementing strict policies that manage scheduled medications and limits easy access.

The researcher recommends that health care institutions, both private and public, including training institutions should have systems and policies in place that will enable them to assess whether their prospective employees are fit to practice.

5.2.2 Policy

Policies on an alternative to discipline programmes should be developed and implemented in all hospitals in the republic. This requires that a nurse with substance-related problems should undergo formal assessment, be placed in a rehabilitation programme and aftercare and should be monitored for compliance with the programme. The nurse should be assessed for fitness to resume normal duties after a rehabilitation programme.

The government should develop and implement relevant legislation that will enable hospital managers to evaluate employees' performance objectively so that if there are changes or a decline in performance, the situation can be addressed.

The government should also develop and implement the legislation on employee wellness, and ensure that health institutions have employee wellness programmes. The health department must ensure that employee wellness programmes have appropriate coordinators who have expertise in substance use disorder and psychotherapeutic skills

The government should develop and implement legislation in relation to incident reporting and management. All incidents related to the maladministration of scheduled medications and all discrepancies related to maintaining records of drugs must be noted and investigated. Suspected nurses should be screened for substance use disorder. And the employer should maintain statistics in regard to such incidents. Higher authorities and the regulatory bodies should be notified

Gaps and Shortcomings in the current policies

The strategic planning for Nurse Education and training has indicated that Nursing managers are in a critical position to lead the implementation of many proposed health care reforms; including lack of formal authority and control over resources (Department of Health: Strategic Plan for Nurse Education, Training and Practice 2013-17:23).

The National Wellness Management Policy and the Provincial policies on management of substance abuse in the work place have not been fully implemented. The strategic planning for Nurse Education and training has indicated that positions need to be filled with nurse leaders so that the health service delivery need can be met. Nurse Managers need to be capacitated with leadership programmes so that they can compete equitably with other disciplines (Department of Health: Strategic Plan for Nurse Education, Training and Practice 2013-17:47).

The researcher, in managing some of the cases related to substance use disorder reported to the SANC, has noted that there are no Senior Managers designated to manage wellness in public institutions. Most EAP practitioners they do not have expertise to handle mental health challenges. There is no drug monitoring system; managers are only reactive to drug abuse incidents. Currently the proposed e-Health and Peer education programmes have not been implemented. There is no distinction made between the user and the enablers. Managers cannot identify and manage occupational health risks.

5.2.3 Recommendation for Nursing Education

Educational programmes on substance use disorder should be provided for all categories of nurses. Education should focus on early identification of substance use disorder, signs and symptoms and preventative measures. Comprehensive non-discriminatory policies that address awareness on substance abuse should be developed for all nursing communities and schools. In-service training should be conducted to all categories of nurses on substance abuse and be equipped on how to manage substance use disorders.

5.2.4 Recommendations for future research

Future research should be extended to clinics, district and provincial hospitals, private hospitals and nursing colleges because substance use disorder can affect any one, including student nurses. Deeper understanding on impairment due to substance use and measures that can be put in place to minimise the problem can be gained by giving the nursing community an opportunity to think about the issue and make suggestions. Further research should include early risk factors; and focus on education, early prevention and the appropriate management of substance use disorder and the evaluation of interventions. In South Africa limited

research has been conducted in this regard and archived information on substance use disorder and substance abuse among health professionals is also limited.

5.3 Dissemination

The research report will be submitted for examination and uploaded to the university library. The findings will also be submitted to the Head Nurse of the hospital at which the study was conducted, and to the operational managers of the units where the data was collected and to any study participants who request this.

5.4 Conclusion

Impairment due to substance abuse is a significant problem that not only affects the health of the nurse practitioner, it has an impact on their families, society, the state and it adversely affects patient care. It is important that nurses are aware of the prevalence of substance use disorder among themselves in order to identify indicators of the disorder. A practitioner who has been identified as showing indications that he or she has a substance use problem should be reported to the relevant supervisors so that appropriate interventions can be implemented at an early stage before the practitioner poses a risk to patient care.

In order to ensure safe quality patient care, managers should manage employees' performance. They also have the responsibility to assess and detect poor performance and institute appropriate intervention.

This study is about how nurses perceive impairment due to substance abuse. The results indicate that few nurses are aware of substance use problems within the nursing community. It reveals that the majority of nurses view stress as a contributory factor in impairment due to substance abuse. The participants indicated that they can identify a nurse with substance use disorder and agreed that it is their responsibility to report a colleague who is impaired so that he or she can be assisted because impairment is a treatable illness.

The research results may be informative for the development and adoption of policies addressing substance-related disorders among nurses as well as in respect of other health professionals. Effective policy development may create a platform to raise awareness, reduce stigma, encourage early detection, support a return to work and anticipate a relapse while modelling evidence – based approaches to substance use disorders.

The study elaborated the view of nurses on impairment due to substance use. The study findings on the phenomenon were not notably different from the results of other studies

which were conducted internationally. It is recommended that suggested measures be put in place and be implemented to minimise substance use disorder among nurses. It is clear that nurses in South Africa comprise the major part of the health workers' force. It is, therefore, required that they should have the competence and expertise to manage the country's burden of disease and provide safe nursing practice.

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APPENDICES

Appendix 1: Ethical approval from Stellenbosch University



Approved
New Application
Health Research Ethics Committee (HREC)

08/11/2017

Project Reference #: 0815

HREC Reference #: S17/08/149

Title: NURSES' PERCEPTION OF IMPAIRMENT DUE TO SUBSTANCE USE IN GAUTENG PROVINCE

Dear Ms Vulani Kubayi

The **New Application** received on 29/09/2017 09:00 was reviewed by **Health Research Ethics Committee** via **expedited** review procedures on 07 November 2017 and was approved.

Please note the following information about your approved research protocol:

Protocol Approval Period: **This project has approval for 12 months from the date of this letter.**

Please remember to use your project reference number (0815) on any documents or correspondence with the HREC concerning your research protocol.

Please note that this decision will be ratified at the next HREC full committee meeting. HREC reserves the right to suspend the approval and to request changes or clarifications from applicants. The coordinator will notify the applicant (and if applicable, the supervisor) of the changes or suspension within 1 day of receiving the notice of suspension from HREC. HREC has the prerogative and authority to ask further questions, seek additional information, require further modifications, or monitor the conduct of your research and the consent process.

After Ethical Review

Please note you can submit your progress report through the online ethics application process, available at: <https://apply.ethics.sun.ac.za> and the application should be submitted to the Committee before the year has expired. Please see **Forms and Instructions** on our HREC website for guidance on how to submit a progress report.

The Committee will then consider the continuation of the project for a further year (if necessary). Annually a number of projects may be selected randomly for an external audit.

Translation of the consent document(s) to the language(s) applicable to your study participants should now be submitted to the HREC.

Provincial and City of Cape Town Approval

Please note that for research at a primary or secondary healthcare facility, permission must still be obtained from the relevant authorities (Western Cape Department of Health and/or City Health) to conduct the research as stated in the protocol. Please consult the Western Cape Government website for access to the online Health Research Approval Process, see: <https://www.westerncape.gov.za/general-publication/health-research-approval-process>. Research that will be conducted at any tertiary academic institution requires approval from the relevant hospital manager. Ethics approval is required BEFORE approval can be obtained from these health authorities.

We wish you the best as you conduct your research.

For standard HREC forms and instructions, please visit: **Forms and Instructions** on our HREC website (www.sun.ac.za/healthresearchethics)

If you have any questions or need further assistance, please contact the HREC office at 021 938 9677.

Yours sincerely,
Mr. Franklin Weber

Federal Wide Assurance Number: 00001372

Institutional Review Board (IRB) Number: IRB0005239

The Health Research Ethics Committee complies with the SA National Health Act No. 61 of 2003 as it pertains to health research and the United States Code of Federal Regulations Title 45 Part 46. This committee abides by the ethical norms and principles for research, established by the Declaration of Helsinki and the South African Medical Research Council Guidelines as well as the Guidelines for Ethical Research: Principles, Structures and Processes 2015 (Department of Health).

Appendix 2: Amendment ethical approval from Stellenbosch University



UNIVERSITEIT•STELLENBOSCH•UNIVERSITY
jou kennisvennoot • your knowledge partner

Amendment Approval Letter

08/05/2018

Project Reference #: 0815

Ethics Reference #: S17/08/149

Title: NURSES' PERCEPTION OF IMPAIRMENT DUE TO SUBSTANCE USE IN GAUTENG PROVINCE

Dear Ms Vulani Kubayi,

Your amendment request dated 7 May 2018 refers.

The Health Research Ethics Committee (HREC) reviewed and approved the amended documentation through an expedited review process.

The following amendment was reviewed and approved:

Pilot study to be conducted at Charlotte Maxeke Academic Hospital.

Where to submit any documentation

Kindly note that the HREC uses an electronic ethics review management system, Infonetica, to manage ethics applications and ethics review process. To submit any documentation to HREC, please click on the following link: <https://applyethics.sun.ac.za>.

Please remember to use your **Project ID [0815]** on any documents or correspondence with the HREC concerning your research protocol.

National Health Research Ethics Council (NHREC) Registration Numbers: REC-130408-012 for HREC1 and REC-230208-010 for HREC2

Federal Wide Assurance Number: 00001372

Institutional Review Board (IRB) Number: IRB0005240 for HREC1

Institutional Review Board (IRB) Number: IRB0005239 for HREC2

The Health Research Ethics Committee complies with the SA National Health Act No. 61 of 2003 as it pertains to health research and the United States Code of Federal

Regulations Title 45 Part 46. This committee abides by the ethical norms and principles for research, established by the Declaration of Helsinki and the South African Medical

Research Council Guidelines as well as the Guidelines for Ethical Research: Principles, Structures and Processes 2015 (Department of Health).

Yours sincerely,

Mr. Franklin Weber

Health Research Ethics Committee 1

Appendix 3: Permission obtained from institution



GAUTENG PROVINCE

HEALTH
REPUBLIC OF SOUTH AFRICA

CHARLOTTE MAXEKE JOHANNESBURG ACADEMIC HOSPITAL

Enquiries:
Ms. G. Ngwenya
Office of the Nursing Director
Tell: (011): 488-4558
Fax: (011): 488-3786
14 November 2017

Ms. Sharon Kubayi
Stellenbosch University
NHRD REF: GP 201711_012

Dear, Ms. Sharon Kubayi

RE: "Nurses' Perception of impairment due to substance use in Gauteng Province"

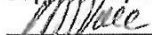
Permission is granted for you to conduct the above recruitment activities as described in your request provided:

1. Charlotte Maxeke Johannesburg Academic hospital will not in anyway incur or inherit costs as a result of the said study.
2. Your study shall not disrupt services at the study sites.
3. Strict confidentiality shall be observed at all times.
4. Informed consent shall be solicited from patients participating in your study.

Please liaise with the Head of Department and Unit Manager or Sister in Charge to agree on the dates and time that would suit all parties.

Kindly forward this office with the results of your study on completion of the research.

Supported / not supported

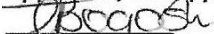


Ms. M.M Pule

Nursing Director

Date: 2017/11/17

Approved / not approved



Ms. G. Bogoshi

Chief Executive Officer

20.11.2017

Appendix 4: Participant leaflet and declaration of consent by participant and investigator

TITLE OF THE RESEARCH PROJECT:

Nurses' perception of impairment due to substance use in Gauteng Province

REFERENCE NUMBER: S17/08/149

PRINCIPAL INVESTIGATOR: V.S Kubayi

ADDRESS: University of Stellenbosch, Faculty of Medicine and Health Sciences. Francie van Zijl Drive, Tygerburg

CONTACT NUMBER: 012 426 9547

Dear Colleague

My name is Sharon Kubayi and I am a professional nurse and a master's student in the Department of Nursing and Midwifery at the University of Stellenbosch. I would like to invite you to participate in a research project that aims Nurses' perception of impairment due to substance use in selected hospitals in Gauteng Province.

Please take some time to read the information presented here, which will explain the details of this project and contact me if you require further explanation or clarification of any aspect of the study. Also, your participation is entirely voluntary and you are free to decline to participate. If you say no, this will not affect you negatively in any way whatsoever. You are also free to withdraw from the study at any point, even if you do agree to take part.

This study has been approved by the Health Research Ethics Committee (HREC) at Stellenbosch University and will be conducted according to accepted and applicable National and International ethical guidelines and principles, including those of the international Declaration of Helsinki 2013.

What is this research study all about?

Abuse of substances by nurses remains a challenge for South Africa. It is therefore important to explore nurses' perception of impairment due to substance use. The information from you as practitioner will help in identifying gaps and recommendation which would be given to improve nursing practice.

Why have you been invited to participate?

The researcher has selected you to participate in the study because your opinion will be valuable in exploration of nurses' perception of impairment due to substance use.

What will your responsibilities be?

The researcher will hand out questionnaires at your work place. It will take between 10 and 15 minutes to complete. The researcher will provide information about the study and give you a consent form to sign if you agree to partake in the study. The researcher will give you questions to answer and the questionnaires will be collected after completion and feedback on the study outcomes will be provided to the participants.

Will you benefit from taking part in this research?

The study may not benefit you directly but has bearing in the profession. The conduct and practice of nursing and midwifery stand to benefit from recommendations that may follow.

Are there in risks involved in your taking part in this research?

The study has no experiments as it seek to explore contributory factors to abuse of controlled substances by nurses. However if you feel overwhelmed emotionally, you are free to withdraw without explanation.

Will you be paid to take part in this study and are there any costs involved?

No you will not be paid to take part in the study. There will be no costs involved for you, if you do take part.

Privacy and confidentiality of information.

You have been selected because of your expertise in the subject. Your name will not be used in the reporting of the findings. Note however that the researcher will be having all names and codes separate for referrals. All information received during the study is strictly confidential. Report of this study will not indicate your name.

If you are willing to participate in this study please sign the attached Declaration of Consent and (hand it to the researcher)

Yours sincerely

.....

Ms V.S Kubayi

Researcher

Declaration by participant

By signing below, I agree to take part in a research study entitled

I declare that:

- I have read the attached information leaflet and it is written in a language with which I am fluent and comfortable.
- I have had a chance to ask questions and all my questions have been adequately answered.
- I understand that taking part in this study is voluntary and I have not been pressurised to take part.
- I may choose to leave the study at any time and will not be penalised or prejudiced in any way.
- I may be asked to leave the study before it has finished, if the researcher feels it is in my best interests, or if I do not follow the study plan, as agreed to.

Signed at (place)On (date) 2018.

Signature of participant

Appendix 5: Questionnaire

P123

Section A: Demographic information

Please complete the entire questionnaire by marking your answer with an X where applicable and fill in the remaining space.

1. Gender

Male	
Female	

2. Category:

RN	
EN	

3. How long have you been working as a nurse.....years

4. Unit in which you are working

ICU	
Maternity	
Psychiatry	
Operation Theatre	

5. Age.....

Current marital status

Never married	
married	
divorced	
widow/widower	
other	

6. Have you relocated in the last five years?

yes	
no	

7. Are you currently receiving or have you received assistance for substance dependency?

yes	
no	

If yes, give the short description of the drug used and your perceptions of contributory factors that led up to the abuse

.....

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.....

.....

8. Have you ever worked with a nurse who has used controlled substances e.g. (Pethidine) or who has drug addiction - problem?

yes	
no	

9. Has patient care been affected by nurse with drug – addiction problem

yes	
no	

Section B: The following are the perceptions on nurse substance abuse called (PNII) Perception of nurse impairment inventory (Boulton & Nosek 2014:31). Please indicate your opinion

Nurses' perception on substance abuse	strongly disagree	disagree	partially agree or disagree	agree	strongly agree
	1	2	3	4	5
1. The problems of impaired nurses are often a reflection of stressful environment					
2. In most cases, the problems of impaired nurses stem from difficulty those individuals already had encountered before becoming nurses					
3. Impaired nurses can be best be understood as people who suffer from illness					
4. When a nursing supervisor suspects that a nurse is impaired, she has a responsibility to help that nurse receive assistance.					
5. If an impaired nurse is receiving treatment, it is important for her co-workers to be aware of the situation					
6. In most cases, public safety should require that impaired nurse's licence be revoked					
7. The help needed by impaired nurses usually requires the type of insight which only other nurses are likely to provide					
8. When a nursing manager has concrete evidence that a nurse is impaired, the supervisor has a responsibility of suspending that nurse pending investigation.					

9. Impairment is a wide spread problem among nurses					
10. health care agencies should be required to provide EAP which could serve the impaired nurse					
11. For the sake of public protection, the regulatory body should continue to publish the names of all nurses found to be impaired					
12. Impairment in nurses occurs less frequently than other health related field					
13. There is little that can be done to help those nurses who are impaired.					
14. The regulatory body's responsibility should include offering nurses referral to sources of assistance.					
15. While receiving treatment, most impaired nurses are capable of continuing to work as registered nurses					
16. Becoming impaired is something that could happen to any nurse					
17. Nurses has have an obligation to notify the supervisor when they suspect impairment in co-worker					
18. I could probably recognise an impaired nurse in the work place by his/her appearance or behaviour					

Any other suggestions and comments you may have about the phenomenon.

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Appendix 6: Declarations by language and technical editor

THE HEAD,
DEPARTMENT OF NURSING AND MIDWIFERY
FACULTY OF MEDICINE AND HEALTH SCIENCES
STELLENBOSCH UNIVERSITY

2 December 2018

**Re: EDITING OF DISSERTATION/THESIS BY VULANI SHARON KUBAYI
(STUDENT NUMBER: 15393534)**

Dear Professor


This is to confirm that I edited and proofread the dissertation/thesis entitled:

**Nurses' perceptions of impairment due to substance use in Gauteng
Province**

by the abovementioned student of your department.

Yours faithfully

Dr JA Fourie
Member of the Professional Editors' Guild
0825121841
jackie.j.fourie@gmail.com



.....