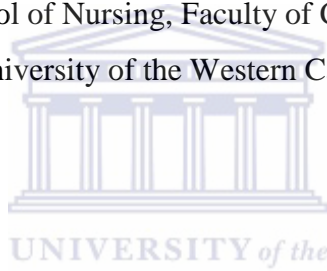


**PERCEIVED READINESS OF OCCUPATIONAL HEALTH NURSING STUDENTS  
TO PRACTICE OCCUPATIONAL HEALTH NURSING ACCORDING TO SOUTH  
AFRICAN NURSING COUNCIL COMPETENCIES**

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A mini thesis submitted in fulfilment of the requirements for the degree of  
Magister Curationis in the School of Nursing, Faculty of Community and Health Sciences,  
University of the Western Cape



Supervisor: Professor J. Chipps

Co-supervisor: Dr P. Orton

20 December 2016

## DECLARATION

I declare that the mini thesis entitled ‘Perceived readiness of occupational health nursing students to practice occupational health nursing according to South African Nursing Council competencies’ is my own work, that is has not been submitted before for any other degree or examination in any other university, and all the sources that I have used or quoted have been indicated and acknowledged by means of complete references.

Ilze Steenkamp

Date: December 2016



Signed by student and supervisor: UNIVERSITY of the  
WESTERN CAPE

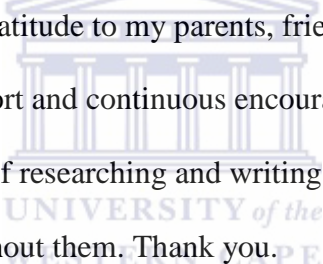
A handwritten signature in blue ink, appearing to be 'Ilze Steenkamp'.

## **ACKNOWLEDGEMENTS**

I thank my thesis advisor Professor Jennifer Chipps of the School of Nursing at the University of the Western Cape. The door to Professor Chipps' office was always open whenever I experienced a problem or had a question about my research or writing. She consistently allowed this paper to be my own work, but steered me in the right direction whenever she thought I needed this.

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I express too my very profound gratitude to my parents, friends, family and my boyfriend for providing me with unfailing support and continuous encouragement throughout my two years of study and through the process of researching and writing this thesis. This accomplishment would not have been possible without them. Thank you.



To conclude: this thesis would not have been possible without the power of prayer.

## ABSTRACT

Occupational health nursing (OHN) as a specialist area has become increasingly popular in South Africa for registered nurses. With developing legislation in South Africa regarding occupational health in the workplace, there is a growing need for occupational health nursing practitioners to be adequately prepared to practice according to the competencies set out by the South African Nursing Council on completion of their study programme. No significant research studies have been done on the perceived readiness of occupational health nursing practitioners to practice occupational health nursing in South Africa.

The aim of the study was to explore the perceived readiness of the 2015 graduating OHN students to practice OHN. The study used a qualitative research approach, using an exploratory descriptive design. Purposive sampling was used to select participants who were enrolled in the occupational health nursing programme during their final year of study at a specific university in South Africa.

Data were collected by means of in-depth interviews from participants and were analysed using thematic content analysis. Five major themes were identified: Perceived confidence to practice OHN; Readiness for the unique field of OHN; Readiness for professional and self-development; Readiness for a leadership role in occupational health management; and Perceived readiness for a research role in OHN and future implications.

The researcher concluded, on the basis of the findings, that occupational health nurse practitioners are generally ready to practice as competent and independent OHN professionals.



## **KEY WORDS**

Practice Readiness

Occupational health nursing

Nursing Competencies



## **LIST OF ABBREVIATIONS**

AAOHN – American Association of Occupational Health Nurses

AIDS – Acquired immunodeficiency syndrome

ANC - African National Congress

APN – Advanced Practice Nurse

BTech – Bachelor of Technology

COIDA – Compensation Occupational Injuries and Diseases Act

HEI – Higher education institution

HIV – Human immunodeficiency virus

ICN – International Council of Nurses

ILO – International Labour Organization

MHSA – Mine Health and Safety Act

ODMWA – Occupational Diseases in Mines and Works Act

OH – Occupational health

OHN – Occupational health nursing

OHNP – Occupational health nurse practitioner

OHSA – Occupational Health and Safety Act

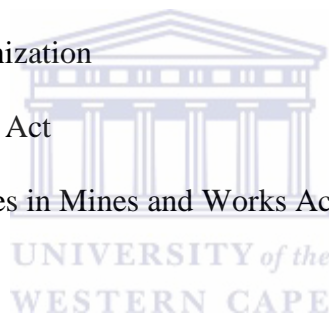
OMP – Occupational medical practitioner

PBL – Problem-based learning

SA – South Africa

SANC – South African Nursing Council

SASOHN – South African Society of Occupational Health Nursing



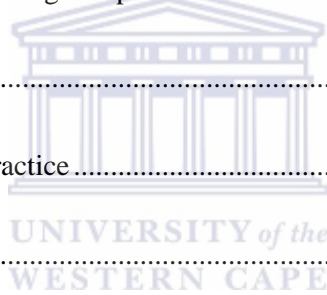
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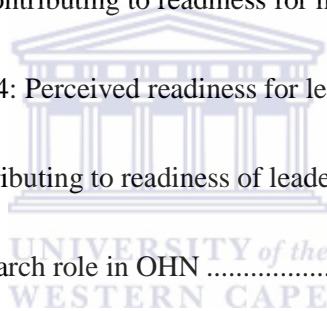
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# CHAPTER ONE

## ORIENTATION TO THE STUDY

### 1.1 Introduction

Practice readiness can be described as a nurse's ability to render safe patient care and having the skill of organising and categorising the care needs of patients (Kieft, de Brouwer, Francke & Delnoij, 2014). Readiness to practice combines abilities such as basic skill in performing nursing procedures, conceptualising the skill with the underlying theoretical knowledge and acquiring critical thinking skills to assist in decision making regarding the care of patients (Wolff, Regan, Pesut & Black, 2010).

This first chapter provides the background and rationale of the present study, information regarding occupational health nursing (OHN) and an overview of the competencies set out for occupational health nurse practitioners (OHNPs) by the South African Nursing Council (SANC). The chapter also sets out the problem statement, research aim, objectives and explanations of key terms and concepts used in the study.

### 1.2 Background and rationale for the study

OHN is a growing area of nursing specialisation in South Africa and is grounded in OH legislation and OHN competencies established by the SANC. Employers and educators of OHN students expect that, upon graduation from an OHN programme, they will have acquired a basic set of knowledge and clinical skills to enable practice in an occupational health setting. Many occupational health facilities are nurse led, and the nurse often functions independently. The OHNP should thus be ready to practice upon graduating from the OHN programme.

Research has been done on the topic of occupational health diseases as early as 1925 when the International Labour Organization (ILO) was established (Kim & Kang, 2013). The risks

in the workplace, and the role of the OHNP in the workplace has been a topic of research. However, there have been few documented studies in South Africa to determine the readiness of occupational health nurses to practice OHN. Such studies can provide educators with information that can be used to improve the clinical educational experience of students and make the transition from novice practitioner to independent practitioner more effective. Knowing the perceived readiness and deficiencies will make clinical training more meaningful and will contribute to the readiness to practice of OHNPs.

### **1.2.1 Occupational health history**

Searle (1982), cited in Acutt and Hattingh (2011), stipulated that OHN in SA had its beginnings in a refreshment station and hospital for sailors at the Cape established by the Dutch East India Company in 1652. Not many occupational health services were established in work environments in the early days, but hospitals were created by industries with the specific aim of providing medical care to workers (Acutt & Hattingh, 2011). Searle (1982), cited in Acutt and Hattingh (2011), further states that, owing to the subsequent fast growth of the economy in SA, and the shortfall of a skilled workforce, the OHNP service is of high significance to communities and the country as a whole.

Services that focused on curative care were established later among mining houses owing to the large number of workers employed (Acutt & Hattingh, 2011). The main function of the OHNP was to safeguard the health of employees in working environments that have large numbers of personnel (Acutt & Hattingh, 2011).

The first nurse working in occupational health was Matron Herron-Brown, employed by the United Tobacco Company in Cape Town in 1923 (Baker & Coetzee 1983, as cited in Acutt & Hattingh, 2011). Occupational health nurses were seen as front-line nurses who anticipated

possible problems that extended beyond the acute care of workers (Acutt & Hattingh, 2011). This approach affected the training that these nurses received.

The first OHNP was created from a practice that had long existed in Britain and was later transformed to include the occupation of sanitary inspection (Acutt & Hattingh, 2011). Health visitors including sanitary inspectors were employed by local government and non-governmental organisations to promote the general health of people and improve sanitary conditions (Acutt & Hattingh, 2011).

The first training course for health visitors was held in 1926 with the help of the South African Trained Nurses Association and was offered at the Witwatersrand Technical Institute (Searle, 1965, as cited in Acutt & Hattingh, 2011). This was followed by the first National Diploma in Public Health that was created in 1964 (Acutt & Hattingh, 2011). OHN at this stage included specific courses related to the field of occupational health (OH). Experienced nurses later developed an outcomes-based course which was at certificate level, which was offered at a cost of R238 for the first time in 1976 (Acutt & Hattingh, 2011).

The course was followed by growing awareness of the needs of OHNPs and the promotion of OH by the South African Society of Occupational Health Nurses (SASOHN) in 1980 (Acutt & Hattingh, 2011). Today SASOHN continues to promote the quality of OHN in South Africa.

### **1.2.2 Occupational health legislation**

In 1976, the Erasmus Commission was set up to explore health problems that resulted from occupational exposure, and it found that minimal money and time was spent on workers' health (Grainger & Michell, 2005). As a result of the Erasmus Commission's findings, the Machinery and Occupational Safety (MOS) Act, No. 6 of 1983, was promulgated. The main

purpose of the Act was to provide a safe working environment for workers (Grainger & Michell, 2005).

The MOS Act of 1983 was a great improvement on previous legislation that concerned engineering safety. The new Act made provision for a safe working environment but still did not highlight or safeguard workers' health as part of a safe environment (Grainger & Michell, 2005). Only after the Occupational Health and Safety (OHS) Act No. 85 of 1993 evolved and was implemented in 1994, were the limitations identified in the MOS Act, No. 6 of 1983, addressed (Grainger & Michell, 2005). The OHS Act included the health of workers, which gained elevated status through inclusion of the word 'health' in the title of the Act.

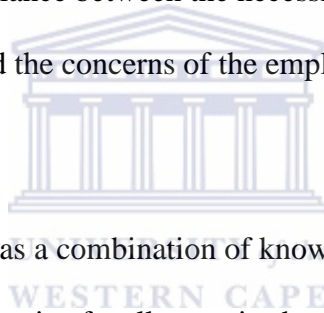
### **1.2.3 The South African Nursing Council and Occupational Health Nursing**

The main purpose of OH is ensuring a healthy, safe workplace and a workforce that is healthy, at work and productive, which includes the avoidance of workplace-related accidents and diseases and foremostly enhancing the work capability of the productive community (SANC, 2013). Projects and strategies include disability management, disease prevention, and employee education and training. The foundation of OHN is obtained from a multidisciplinary support structure which includes nursing and medical disciplines, public health and environmental factors, the occupational health discipline that includes toxicology, safety, industrial hygiene and ergonomics, social and behavioural sciences, and sound business management and administration concepts (SANC, 2013).

The SANC describes the OHNP as a nurse specialist. The term used by the International Council of Nurses is advanced practice nurse (APN). The APN is a registered nurse who obtained a skilled knowledge foundation and wide-ranging decision-making expertise and competencies for extensive practice (Andrist, Nicholas, & Wolf, 2006). The SANC describes

the nurse specialist to be at a level which requires extensive knowledge and expertise in the area of occupational health nursing (SANC, 2012). This requires the general nurse to be obtain a postgraduate diploma in a specific specialisation (SANC, 2012). The SANC does not distinguish between OHN qualifications such as post-basic diplomas, degree or master's degree but focuses on the additional OHN specialisation (SANC, 2012).

OH practitioners deliver a service to the worker population in their place of employment which, amongst other things, includes health promotion and the avoidance of work-related diseases and injuries, which also includes environmental risks (SANC, 2013). The OHNP must exhibit a range of skills and expertise that include an understanding of business which makes it possible to maintain a balance between the necessity of a healthy and safe workplace environment for the employee and the concerns of the employee, with those of the employer (SANC, 2013).



The SANC defines competencies as a combination of knowledge, skills, judgement, attitudes, values and abilities that form the basis of well-organised performance in a profession (SANC, 2013). Competencies are essential for a practitioner to be considered to be competent in a specific role and practice area. The nurse practitioner is seen as competent when integration of knowledge, skills, judgement, values and abilities needed to practice safely and ethically, amongst other things, in specific areas (SANC, 2013).

The SANC has set out the specific competencies for OHN. There are five domains with twelve subdomains which fall within each domain: professional, ethical and legal practice; clinical practice; care provision and management; quality of practice; management; and leadership and research (SANC, 2013) (Table 1).



**Table 1: OHN competency domains.**

<b>Domain</b>	<b>Subdomain</b>
1. Professional, ethical and legal practice	1.1. Professional practice 1.2. Ethical practice 1.3. Legal practice
2. Clinical practice – care and provision management	2.1 Health promotion and prevention 2.2 Assessment 2.3 Diagnosis 2.4 Care planning 2.5 Implementation 2.6 Evaluation 2.7 Therapeutic communication and relationships
3. Quality of practice	3.1 Quality improvement 3.2 Continuing education
4. Management and leadership	
5. Research	

### **1.2.3.1 Domain One: Professional, ethical and legal practice (SANC, 2013)**

**Professional practice** includes the OHNP as a member within a team, or the team leader in some cases, of other professionals which includes the occupational medical doctor, the ergonomist, hygienist, human resource management team within the employee assistance programme, and other members of the safety team. The OHNP applies policies and guidelines that have been developed for a safe work environment and that comply with international codes of practice and those relevant to the nursing profession. The OHNP has an important advocating role towards the employee and employer in the workplace and in maintaining a multidisciplinary approach (SANC, 2013).

**Ethical practice** involves the ethical principles and moral reasoning when making decisions in the workplace, and should show a high level of competence when dealing with ethical issues and health challenges in the work environment. There are resources that assist the OHNP with ethical issues that she should utilise, such as current legislation and codes of practice according to individual work institutions and professional societies such as

SASOHN. Confidentiality is a very important aspect when practicing OH in accordance with professional codes and regulations (SANC, 2013). The OHNP practices within the scope of professional norms.

**Legal practice** requires that the OHNP is familiar with legislation related to OHN, such as the Occupational Health and Safety Act, the Compensation of Occupational Injuries and Diseases Act, and the Labour Relations Act. There is legislation that is beneficial to the employee and employer that the OHNP should have a detailed knowledge of, and legislation that is applied to prevent injury to employees. The OHNP should advocate for the legal and human rights of employees in the workplace and ensure compliance with the practice requirements of an OHNP as prescribed in the Occupational Health and Safety Act and the Mines Health and Safety Act (SANC, 2013).

### **1.2.3.2 Domain Two: Clinical practice (care and management) (SANC, 2013)**

**Health promotion and prevention** ensures that the OHNP uses a primary healthcare strategy to promote health in the workplace and also communications that enhance health literacy and behaviour change. The OHNP should provide health information that workers are able to understand and that relates to their relevant conditions. Programmes are designed by the OHNP that lead to a positive lifestyle and decrease the risk of diseases and possible injuries. Programmes that are implemented should focus on the balance between work, the person and family, using a team approach. Awareness of workplace health hazards will increase knowledge and health promotion and prevention of illness.

**Assessment** includes health surveillance which identifies and evaluates the health needs of workers in the workplace, by conducting health risk assessments to determine stressors in the workplace and the impact thereof on employees. Physical assessments are done to diagnose common medical conditions and chronic illnesses presenting at the occupational health clinic.

The OHNP performs screening tests and other examinations to identify potential occupational injuries or diseases that can include, amongst others, audiometry, spirometry, vision screening and biological monitoring. Hazards are identified and their risk to employees, and determining special needs for workers. Occupational risk exposure profiles (OREPs) are compiled and conducted with each employee when doing pre-medical, periodic and exit examinations. The general fitness for employment of employees is based on the OREPs.

**Diagnosis** is done of occupational diseases and hazards that have been identified during the assessment and nursing diagnosis of other common diseases. Critical thinking skills and problem solving analysis are applied during clinical decision making.

**Care planning** for the worker is based on the diagnosis to prevent, treat and manage diseases, and for the referral of occupational and other diseases. Medical surveillance programme development is based on health risk assessments that have been conducted by a team approach using programmes for workers with special needs.

**Implementation** includes the emergency management of injuries and diseases and the co-ordination and management of injured workers. The OHNP has a counselling role towards workers about work-related illness and social issues, with assistance given to ill and injured employees in applying for medical disability benefits.

**Evaluation and documentation** relates to the health status of workers and the evaluation of progress after specific interventions. The OHNP utilises statistics to determine health trends.

**Therapeutic communication and relationships** concern the identification and referral of employees needing assistance relating to HIV, sexually transmitted diseases (STDs), alcoholism, substance abuse, chronic illness, psychological conditions, shift work and

vulnerable groups. The OHNP also provides assistance to employees who are medically boarded.

### **1.2.3.3 Domain Three: Quality of practice (SANC, 2013)**

**Quality improvement** ensures high-quality practices and measures to evaluate quality which should be created and implemented, such as audit tools that can be utilised to ensure quality is adhered to. OHNPs make use of recognised audit tools (e.g., OHNP of the year audit tool and audiometry audit tools) to audit themselves. Quality management follows adherence to recognised occupational health norms and standards.

**Continuing education** comprises continuous professional development and taking responsibility for one's own education. Knowledge and skills should be updated accordingly, and the OHNP should be actively involved in meetings such as those held by SASOHN on a monthly basis to gain up-to-date knowledge. An action plan should be created to achieve competence in areas of identified deficiency. The OHNP understands the need for lifelong learning and continuously strives to update professional knowledge and skills.

### **1.2.3.4 Domain Four: Management and leadership (SANC, 2013)**

Management and leadership means being a role model and mentor for others. The OHNP should be actively involved in: disaster management and emergency planning in the occupational environment and ensuring compliance with major hazard regulations; collaboration with local authorities and emergency services for the planning of disaster management and interventions in the workplace; networking and communication across all levels of the organisation within this domain; management of human resources, financial aspects and quality in the workplace; internal and external participation in audits to assess the quality of the service delivery in complying with the International Standards Organization

(ISO), South African National Standards (SANS) and the Occupational Health and Safety Assessment Series (OHSAS). The OHNP develops policies and the implementation thereof in the occupational health setting which includes protocols related to pregnancy at work, substance abuse, medical surveillance, management and securement of resources that support the OH programme and service, and participating in decision making regarding operational and capital resources needed for the cost-effectiveness of occupational health programmes and their service delivery. The OHNP has the role to coach and mentor student and novice practitioners at the workplace.

#### **1.2.3.5 Domain Five: Research (SANC, 2013)**

**Research** in occupational health should include participation of the OHNP in conducting research or participating in studies that can contribute to knowledge in OHN and the health and safety environment, and to having the desire to advance in the profession. Research areas in OH can be identified, and the OHNP should pursue these areas for possible research topics. OHNPs should review research and implement findings in their clinical environment to improve current practice, and research findings should be used to review and develop policies and procedures. Sharing of reports on research findings should be done at conferences and professional gatherings.

#### **1.2.4 Preparation of OHNPs (education and training)**

At present, registered nurses can do either a Bachelor of Technology (BTech) in OHN which is offered at the universities of technology, or a diploma in OHN which is offered at public universities or by the private sector. The OHN qualifications are offered up to master's and the student can do a doctoral degree in nursing with a focus on OHN (Acutt & Hattingh, 2011).

Practice readiness of newly graduated nurse practitioners has been an area of constant discussion between educators and employers. One of the concerns about practice readiness is the 'theory practice gap'. The theory practice gap may result in graduate nurse practitioners being under-prepared for clinical practice. This gap is influenced by numerous factors such as the study institution, practice environments, quality of training opportunities, support structures and socialisation into the profession (Woods, West, Mills, Park, Southern, & Usher, 2014). The expectation that new nursing graduates will function independently creates anxiety for nurses who feel they do not yet have sufficient knowledge and skills to practice independently (Woods, et al., 2014).

Higher education institutions (HEIs) that have nursing programmes aim to produce beginner nurses who are able to meet competency standards for registration as nurses. Employers expect these nurses not only to be competent but also being able to function as safe and independent practitioners, ready to immediately start and proceed at a fast pace with much enthusiasm, together with providing clinical activities (Woods, et al., 2014).

#### **1.2.4.1 OHN programmes**

The OHN programme is a diploma or degree course offered at a HEI and may typically be a two-year programme which has four modules including occupational health, nursing research, occupational health nursing and nurse management (Orton & Nokes, 2012). The programme is offered over two years, and many of the students are older registered nurses wanting to obtain an undergraduate degree or motivation for the expansion of employment opportunities (Orton, Nokes, Scott, & Hickey, 2015). A blended learning education approach is used during this programme, which refers to the combination of face-to-face class time adopting problem-based learning, with online learning (Orton, et al., 2015). Blended learning enhances competencies in reflective thinking, clinical skills, self-efficacy and clinical

reasoning of students, which in turn increases independence and motivation to learn (Orton, et al., 2015).

In another institution that offers the OHN programme as a degree, the course is divided into ten modules. The practical component is done in the clinical setting, and site visits are arranged to various industries.

The diploma programmes include three modules and some compulsory short courses that students need to attend during the year. The programme runs over one year, with theoretical lectures that are part of the programme, and contact is on a monthly basis at the campus with an experiential component consisting of the number of hours worked in a clinical setting.

### **1.3 Problem statement**

Employers seek to hire an OHNP depending on what they perceive the necessary skills to be, the knowledge needed, and the attitudes required for the position. Consequently, the employer's notion of what is considered valuable will affect their decision about hiring an OHNP (Hart, Olson, Fredrickson, & McGovern, 2006). HEIs aim to offer competency-based curricula that will adequately prepare OHNPs to actively compete for positions (Hart, et al., 2006).

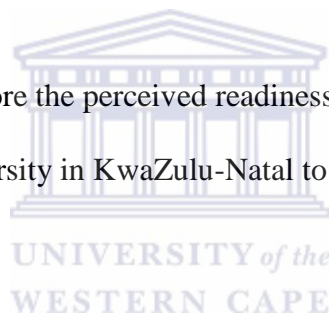
Central to the OHNP's work position is the ability to make a judgement call about an employee's suitability to work based on their health status; the on-site occupational health clinic is often the first point of entry into the healthcare system or, in some cases, the only access to a healthcare service. The OHNP needs to determine if the cause of a disease or illness is occupationally related, which will have a direct impact on the referral and effective management. The readiness to practice of OHN students upon graduation is essential to fulfil the competencies stipulated by the SANC.

OH is seen as a specialist area of nursing and has become increasingly popular for registered nurses in South Africa to specialise in. With the increase of legislation in South Africa regarding OH in the workplace and the requirements of the SANC, there is a need for OHN students to be ready to practice according to the competencies set out by the SANC. No significant studies have been done on the perceived readiness of OHN students to practice OH in South Africa and the transition from novice to expert in the context of OHN practice is not well understood in OHN, and the role that advanced specialist training plays in this area. This proposed study aims to address this need.

## **1.4 The Study**

### **1.4.1 Aim**

The aim of the study was to explore the perceived readiness of 2015 graduating occupational health nursing students at a university in KwaZulu-Natal to practice OHN.



### **1.4.2 Objectives**

The study objectives were to:

- Explore and describe the perceived readiness that OHN students feel about practicing OHN according to SANC competencies.
- Explore and describe OH practice areas that OHN students feel they lack readiness in.

### **1.4.3 Definition of core concepts**

**Competencies:** The combination of knowledge, psychomotor, communication and decision-making skills that enable an individual to perform a specific task to a defined level of proficiency in OHN (SANC, 2015).

**Confidence to practice:** The belief that one can perform an OHN activity without hesitation (Eva & Regehr, 2005).



**Occupational health nursing:** A nursing speciality that provides healthcare to employees at their place of work (Acutt & Hattingh, 2011).

**Nursing practice:** A person who is registered with the South African Nursing Council and performs nursing skills that are applicable in supporting, care and treatment of persons to maintain health (SANC, 2005).

**Readiness to practice:** Readiness to practice can be described as a nurse's ability to render safe patient care and having the skill of organising and categorising the care needs of patients (Kieft, de Brouwer, Francke & Delnoij, 2014).

### **1.5 Significance of the study**

The study will have significant value in generating more understanding of how newly graduated OHNPs experience OH and their readiness to practice. The data gathered from the study can assist in future programme reviews and take into consideration valuable information from students' viewpoints when revising the curriculum for OHN education. Programme reviewers can use this information to add additional resources, add to or adapt certain modules, and improve the programme if needed to enhance the practical experiences of OHN students and create awareness amongst mentors in the current OH field, thus assisting novice OHNPs. The study can contribute to the basis of further studies relating to the readiness to practice OHN.

### **1.6 Outline of the thesis**

**Chapter One** provides the background for the study and a brief description of the study.

**Chapter Two** spans an abbreviated literature review. The discussion section of the thesis includes a more detailed review.

**Chapter Three** sets out the research approach, design and methodology which was used to achieve the aim of the study. The chapter includes the study design, sampling, data collection method and data analysis, and the measures taken to ensure reliability.

**Chapter Four** presents the data that were collected and the themes that emerged there from, and a detailed discussion of the literature concerning the thesis themes.

**Chapter Five** is the final chapter and highlights the key findings and recommendations and further research.

### **1.7 Summary of chapter**

OHN is a growing area of nursing specialisation in South Africa and is grounded in legislation and stipulated competencies as given by the SANC. The main goal of OHN is to ensure a healthy, safe workplace and a healthy workforce. OH has become increasingly popular for registered nurses to specialise in. No significant studies have been done on the perceived readiness of OHN students to practice OH in South Africa.

The OHNP should be ready to practice after graduating from the OHN programme, which implies work readiness. Research has been done on the topic of occupational health diseases, risks in the workplace, and the role of the OHNP in the workplace. There are few documented studies in South Africa to determine the readiness of OHNPs to practice OHN.

In this chapter, competencies were defined as a combination of knowledge, skills, judgement, attitudes, values and abilities that form the basis of well-organised performance in a profession. The SANC has set out competencies for OHNPs in five domains, with twelve subdomains that fall under these domains; professional, ethical and legal practices; clinical practice; care provision and management; quality of practice; management; leadership; and research. The aim of the study was to explore the perceived readiness of the 2015 graduating occupational health nurses to practice.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

The present chapter elaborates on literature about OHN in South Africa and the OH practitioner, nationally and internationally. In addition, the concept of readiness to practice in the health sector is reviewed. The literature search in the present review included literature from the databases of Google Scholar, University Library website, PubMed, Ebscohost, CINAHL and MEDLINE. Books were also reviewed. Search terms included: readiness to practice, OHN preparation to practice; competent graduate nurses, and preparation of nurses' readiness to practice. Legislative and regulatory documents were included in the literature review.



#### **2.2 Occupational health in South Africa**

Eurostat reported a total of 3,176,640 people sustained occupational related accidents in 2014 in 31 countries worldwide and these injuries includes fatal and non-fatal accidents (Eurostat, 2014). The South African Compensation Commissioner's annual report states there were 217 680 occupational injuries reported for the year 2003 and 2004. The main occupational health-related diseases in South Africa include noise-induced hearing loss (which accounts for 56% of OH diseases), major depression, dermatitis, tuberculosis, pneumoconiosis and asthma (Grainger and Mitchell, 2003).

##### **2.2.1 Legislative framework of occupational health**

The International Labour Organization (ILO) action plan reinforces the attempts of the World Health Organization (WHO) to reduce the unacceptable levels of human suffering and economic losses caused by work-related incidents and diseases globally (Machabe & Indermun, 2013). Working conditions have changed for the better in many countries; but

unfortunately the majority of workers worldwide work under conditions that do not meet the minimum standards of the ILO and WHO (Esin, Emiroglu, Aksayan, & Beser, 2008). OH in South Africa is governed by the Occupational Health and Safety Act (OHSA) No. 85 of 1993 which forms part of the most important legislation addressing health and safety in South Africa (Machabe & Indermun, 2013).

The White Paper for the transformation of the health system in South African was published by the Department of Health, and contains strategies to meet the basic needs of people in South Africa (White paper for transformation of the health system in South Africa, 1997).

This document sets out particulars of the importance of developing OH services and relevant human resources, and emphasises that employers are fore mostly responsible for providing and funding OH services.

The short summary below covers the various legislation relevant to OH services in South Africa:



- **Mine Health and Safety Act No. 29 of 1996**

The Act was passed in 1996 and came into effect on 15 January 1997. The Act falls under the Department of Minerals and Energy and it has a Mines Inspectorate to effectively implement the Act.

- **Occupational Health and Safety Act No. 85 of 1993**

This Act was passed in 1993 and came into effect on 1 March 1994. It replaced the Machinery and Occupational Safety Act.

- **Compensation for Occupational Injuries and Diseases Act No. 130 of 1993**

Better known as COIDA, this Act was passed in 1993 and came into effect on 1 March 1994. COIDA provides a system of compensation for employees who are injured in accidents or who acquire occupational diseases arising out of and during their employment. The

Compensation Commissioner provides medical cover and compensation for occupational injuries and diseases in workplaces.

- **Occupational Diseases in Mines and Works Act No. 78 of 1973 (ODMWA)**

The Act No. 78 came into effect in 1973, was amended in 1993, and the Amendment Act came into effect on 1 March 1994. It provides for compensation for occupational lung diseases in mines and quarries.

- **Medicines and Related Substances Amendment Act No. 59 of 2002**

This act enables the use of an authorisation permit issued to nurses in order to dispense scheduled substances in workplace health services.

### **2.2.2 Occupational health service delivery**

Workers have increased awareness and knowledge about workplace health and the possible adverse effects of their work environment and, with pressure from labour and community organisations, have renewed the importance of safety and environmental management in the workplace (Labuschagne & Synfuels, 2003).

It was reported in 2003 that 89% of OHNPs were employed in the private sector, 4% in the governmental field, and 4% in the public sector (Grainger & Mitchell, 2003). According to SANC statistics, there were 455 registered nurses with the additional qualification in OHN registered with the SANC in 2015 – up from 204 in 2014 (SANC, 2015).

There are various OH service delivery systems in SA which include onsite services where the OHNP is employed by the company and forms part of a team that renders health care (Michell, 2011). This team usually consist of an OHNP, occupational medical practitioner (OMP), an occupational hygienist, and some form of employee assistance provider, e.g. a social worker (Michell, 2011). There are many OH service providers in South Africa which

function as businesses, which leaves the employer with the option to choose which activities are to be utilised from the service provider (Michell, 2011). There are individual service providers who travel between companies and render OH services, e.g. using a motor vehicle, and the OHNP often draws on other service providers as the need arises (Michell, 2011).

### **2.2.3 Professional Occupational health organisations**

According to Jeebhay and Jacobs (1999), professional associations in South Africa are formed by relevant OH professionals to safeguard the interests of those professionals. The two major associations are the South African Society of Occupational Medicine (SASOM) and the South African Society of Occupational Health Nurses (SASOHN). These associations act to promote and develop OH services in the workplace which will provide primary-level general healthcare services and are staffed by OH professionals (Jeebhay & Jacobs, 1999). A few OHNPs work as part of an OH team especially in large companies and local government, whereas other OHNPs work as individual practitioners. Some OHNPs provide nurse-led OH services to clients in the public and private sectors (Oakley, 2008).

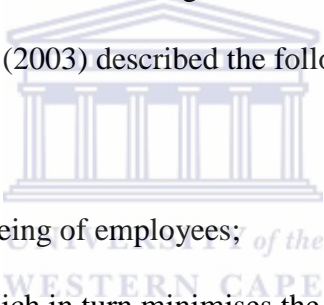
OH is primarily concerned with meeting the requirements of the various regulations in the OHS Act which govern the sort of OH services that are legally required to be done, e.g. the NIHL Regulations which require workers who have had exposure to 85dBA noise to have audiometry tests done. Primary healthcare is incidental to OH and occupies a larger portion of the OHNPs time, and is not in fact what the OH service is about. Benefits of an OHNP include reduced time away from work for minor conditions that can be treated on site, and management of chronic diseases in the OH clinic assists with management of the workforce. Interestingly, nurses reported that less than approximately half of their time is spent on OH-related matters, and the rest of the time is spent on primary curative services (Jeebhay & Jacobs, 1999).

A current study found that the employer's main focus was on curative measures, and thus the OHNPs activities were not related to health promotion and prevention of accidents and diseases (Huiskamp & Matingo, 2014).

For OH to address future challenges, it should become part of a company's current processes and should be seen as an advantage to the company (Labuschagne & Synfuels, 2003).

Companies that aim for sustainability should devote attention to OH, as modern society evaluates business success in terms of social, environmental, financial and responsibility issues, which sums up good corporate governance (Labuschagne & Synfuels, 2003).

There are many benefits of a well-organised and structured OH service, which can be of great value to a business and can also be seen as strategic benefits (Labuschagne & Synfuels, 2003). Labuschagne and Synfuels (2003) described the following benefits in an article about the strategic importance of OH:

- 
- Improvement of general wellbeing of employees;
  - Diseases are detected early which in turn minimises the utilisation of sick leave;
  - Correct placement of employees with physical compatibility issues;
  - Early detection of physical incompatibility and making provision for alternative placement or changes in career;
  - Safeguarding the company against late claims by means of timely exit medical assessments;
  - Safeguarding of employees from known hazards and risks;
  - Cost-effective management of adverse health trends through early identification;
  - Demonstration of company's commitment towards employees;
  - Adherence to relevant legislation and to audit system;
  - Aligns company with international trends and requirements of OH standards;

- Prevention is better than cure and less costly;
- Remedial action of adverse health trends prevents avoidable harm to human resources;
- Hazard and risk education and training empowers employees with knowledge;
- Research into OH issues based on health results addresses problems in the workplace and brings about a research culture in OH as a field of study.

The OHNP still fulfils the traditional roles of a nurse, manager, educationalist, advocate etc., but from a different angle or a different mind-set. More often than not, the OHNP works in a corporate environment and is the only health professional, and she therefore needs a different skill set than the hospital-based nurse. An OHNP needs to be articulate, to look the part, and have high levels of competence, assertiveness, and good knowledge and presentations skills.

### **2.3 Occupational health nurse practitioner**

OHN is a specialist field in nursing that is concerned with the wellbeing (health and safety) of employees in an employment setting; the OHNP should be a highly trained and experienced resource to a company (Oakley, 2008). OHN involves preventative work and understanding the needs of clients and recommending suggestions on risks and hazards (Oakley, 2008).

OHNPs should first qualify as general nurses and then receive advanced OH training to perform their roles and functions within an OH team and be equipped with advanced knowledge and skills (Esin et al., 2008). OHN is concerned with health surveillance of the work environment, prevention of ill health owing to occupational hazards and accidents, arranging first aid and health promotion and education, counselling, administration work and research (Oakley, 2008).

The employer has a responsibility towards the health and safety of employees as prescribed in the Occupational Health and Safety Act, No 85 of 1993 (Department of Labour, 1993). The type of OH service provided will depend on the risk profile of the employees. Mitchell (2011)



suggests the following actions that can be included in an OH service: health risk assessments, medical surveillance according to risks identified, identifying and observation of vulnerable groups, chronic disease management, primary healthcare services, monitoring absenteeism, health education and promotion of employee wellness, referral system in place when needed, first aid, emergency preparedness and disaster management, disability management, case management of occupational injuries and diseases, policies and procedure review, and development and overall management of the service.

Generally, the only experience that newly qualified OHNPs have is that which was covered in the formal OHN training programme and clinical practical. Huiskamp and Matingo (2014) explored the perceptions that OHNPs have of their traditional and expanded roles and activities, and reported that a minority of participants indicated they were not involved in health promotion programme development, implementation and evaluation.

With this new expanded role of the OHNP comes the function of budgeting which can be daunting to someone with no previous experience. In a recent study by Huiskamp and Matingo (2014), 16.6% of their participants indicated that they were not involved in budget development activities, and 12.5% rated this activity as very important, which included the roles of consultant, clinician, educator, researcher, manager and leader.

One of the SANC competencies of the OHNP as mentioned previously in Chapter One is to keep up with continuous professional development (CPD) programmes. The Nursing Act No. 33 of 2005 stipulates in Chapter 2(39) the conditions relating to CPD which specify the following: conditions relating to CPD to be undergone by practitioners in order to retain such registration; the nature and extent of CPD to be undergone by practitioners; and the criteria for recognition by the SANC of CPD activities and accredited institutions offering such activities (SANC, The Nursing Act No 33 , 2005). CPD is a purposeful process where an individual pledges to undertake learning activities to uphold and enhance their knowledge,

skills and attitude that keep a professional person up to date with current practice as a safe practitioner within a legal framework (Kgongwana, 2016).

### **2.3.1 Role and function of the OHNP**

The role of the OHNP includes consultant, clinician, educator, researcher, and manager or leader but, when looking at the expanded role, this includes health promotion, health education, minimising risks through risk assessments and surveillance, environmental health, research and management (Huiskamp & Matingo, 2014).

In a study on the perceptions of OHNPs and their roles, Huiskamp and Matingo (2014) found that perceptions of the OHNP role in applying research methodology were not seen as being of high importance. Research activities were seen as of low importance and the research function of the OHNP as missing in the modern role of the OHNP; this can be made an area of focus in the future, encouraging OHNPs to conduct research and also to make use of and implement the findings of other research (Huiskamp & Matingo, 2014).

OHNP functions also included assessing the work environment and providing information, education and training (Huiskamp & Matingo, 2014), which includes regulations in the OHS Act (hazardous chemical substances and biological agents, the NIHL) where health risk assessments, medical surveillance and the education of workers on hazards is a legal requirement. Participants in the same study perceived it extremely important to be a member of the occupational health and safety committee (Huiskamp & Matingo, 2014). The following roles were seen as highly important in a study on the perceived roles of OHNP as reported by Huiskamp and Matingo (2014): performing periodic and replacement assessments, health assessments, and care for and supervising work-related diseases and injuries.

Limited information is known about what OHNPs see as important areas of their practice in OH (Mellor & St John, 2007). Miller (1989) as cited in Mellor and St John (2007) states that

the scope of OHN will be threatened if OHNPs do not actively adapt their role from an illness-based shift towards a wellness approach. Mellor and St John (2007) go further by stating that OHNPs should take responsibility for their practice by being actively involved in management and research activities in order to professionalise their role in OHN. Australian OHNPs have found it difficult to shift their health care from curative- and illness-based to making health promotion the core of their role, and preventing illness and injury by being involved in management activities and implementing research (Mellor & St John, 2007).

In South Africa, OH is under-researched as compared with other countries, and more research needs to be encouraged, such as medicine-related research carried out at various universities in South Africa; OHNPs should therefore also be encouraged to conduct research (Grainger & Michell, 2005). Previously, the OH nurses' role did not include research which, together with funding issues, means that OHNPs have not been in the forefront of research, and a non-research culture subsequently developed (Grainger & Michell, 2005). Over the years, there has been a change in this culture as OHN is now a specialisation where nurses function independently, and a number of OHNPs are studying towards research-based Master's and Doctoral qualifications (Grainger & Michell, 2005).

Grainger and Michell (2005) established goals for the future of OHN education and research, describing them as follows: more OH services in the informal working sector to meet rising needs; creative ways in providing OH with available resources; dedication from employers to take more responsibility for workplace health; best practices to promote quality; open communication between OHNPs and management; increasing the number of nurses being trained in OH towards degree level who can function at management level; OH exposure to nurses providing general health; making funds available for OH research; and the active involvement of OHNPs in research, with the publication of their findings (Grainger & Michell, 2005).

OHNPs fulfil an important managerial role, which means that they should be involved the safety management of OH and need to have a form of autonomy in their OHN practice (Mellor & St John, 2007). According to Mellor and St John (2007), managers have requested OHNPs to analyse trends in health promotion, risk reduction and healthcare expenses, including research, to ascertain cost-effective alternatives in healthcare services. This is the reason why OHNPs need to have advanced qualifications in OHN so that they can develop the knowledge and skills to fully participate in the expanded scope of practice (Mellor & St John, 2007). Ongoing changes in the working environment indicate that there will be changes in the specialty of OHN and, as a result, changes in OHN education (Esin et al., 2008).

### **2.3.2 OHN competencies in other countries**

The American Association of Occupational Health Nurses (AAOHN) addressed the competency challenges of the OHN profession in 1995, and the initial competencies in OH and environmental nursing were published in 1999 (AAOHN, 2007). Thereafter, the competencies of OH and environmental nurses are reviewed every four years (AAOHN, 2007). It is evident that the role of the OHNP has significantly changed over the years, and therefore the need for improvement in the scope, role and trends of OHN is essential.

Internationally the traditional role of the OHNP has expanded over the years beyond emergencies, surveillance, monitoring and treatment of diseases and accidents, to a new role that includes prevention, health promotion, primary care, risk and case management, research and administrative functions (Esin et al., 2008). There is a big focus in OH towards employee wellness and looking at the employee holistically.

OHNP in America, just as those in South Africa, make independent nursing judgements in providing programmes and services within an autonomous speciality (AAOHN, 2007). The basis of OHN in America is research-based and utilises multidisciplinary knowledge from a

theoretical, conceptual and factual framework (AAOHN, 2007); this includes nursing science, medical science, public health (epidemiology, toxicology, safety, industrial hygiene, and ergonomics), social and behavioural science, business principles, and management and administration principles (AAOHN, 2007). AAOHN define competency as an outcome-orientated statement of perfection of a certain skill or ability whereby competencies are measurable and affirmed in behavioural terms and differ from one work setting to another (AAOHN, 2007). The AAOHN has nine categories of competency in OHN and, within each competency, there are three levels of achievement or competency (Table 2). This multidisciplinary base is in line with the competencies for OHN specialists as set out by the SANC (SANC, 2013).

**Table 2: AAOHN competencies of the OHN**

AAOHN(2007)	SANC (2013)
1. Clinical practice	1. Professional, ethical and legal practice
2. Case management	2. Clinical practice – care provision and management
3. Workforce, workplace and the environment	3. Quality of practice
4. Regulatory/legislative	4. Management and leadership
5. Management, business and leadership	5. Research
6. Health promotion and disease prevention	
7. Health and safety education and training	
8. Research	
9. Professionalism	

The AAOHN competencies were reviewed in 2015 by the AAOHN and four core competencies and what should be achieved to be competent in each were renewed:

1. Manages total worker health independently and with other team members;
2. Adheres to principles of professional nursing practice;
3. Demonstrates understanding of the business climate and its impact on the health of the community; and

4. Practices culturally appropriate, evidence-based nursing care within licensed scope of practice.

According to the AAOHN (2007), OHN competencies should be used as a resource when creating the following:

- Self-assessment tools throughout the continuous structure;
- Curriculum development for academic and professional education and independent learning;
- Accreditation for educational programmes;
- Certification process;
- OH and environmental health policies;
- Recruitment of specialist into the speciality of OH;
- Planning and evaluation of OH programmes and services;
- Hiring and job performance evaluation; and
- Linking with stakeholders e.g. national and international organisations.

#### **2.4 OHN Education and training**

The SANC has drawn up a position paper on the advanced nurse practitioner and the specialist nurse, which has been gazetted. These specialist nurse programmes will be at a postgraduate diploma level on NQF Level 8 and, for a person educated at a Master's level, NQF 9.

In South Africa, HEIs use the framework of OHN competencies which is provided by the SANC, indicating nursing specialities' curriculum content such as, in the case of the OHN specialist, competencies that were described by the SANC. The curriculum was drafted according to these competencies and sent to the SANC for approval before the process of qualification and accreditation follows. Many job/work profiles of OHNPs in workplaces are

drafted according to the OHN competencies, and OHNPs undergo yearly appraisals according to the job or work profile. The WHO stated that OHNPs should receive a similar education and qualifications in every country (Esin et al., 2008).

## **2.5 Readiness and preparedness to practice**

Nursing education stakeholders have been concerned for some time about nurses' practice readiness even though work readiness is generally described according to the competencies that new graduates must achieve on completion of their training (Dlamini et al., 2014).

Characteristics of a competent nurse graduate involve the ability of applying evidence to practice, collaboration with other health professionals, critical decision making and problem solving skills, giving thought to professional ethics, and valuing patients (Dlamini et al., 2014).

In a study the needs expressed by nurse practitioners were for more rigorous learning in their nursing education with regards to clinical competencies. They stated that physicians, who have more rigorous educational experience, come out ready to practise whereas they themselves lacked clinical preparedness (Hart & Macnee, 2007). The respondents felt that the theory, research and assignments were accurate and precise but that clinical competence was lacking these respects (Hart & Macnee, 2007).

Rigorous learning experiences, for example, help students to understand knowledge and concepts that are complex, ambiguous or contentious, and they help students to acquire skills that can be applied in a variety of educational, career and civic contexts throughout their lives. According to Hart and Macnee (2007), the respondents wanted a more relevant clinical experience and clinical hours associated with their education. The respondents indicated a need for competent educators who kept their skills current while educating (Hart & Macnee

2007). Hart and Macnee (2007) found that the respondents who had past experience in nursing felt more prepared to practise.

Nurses who play a role in education, practice and regulatory areas have an important concern with preparing nursing students who are ready for practice (Wolf et al., 2009). A general common opinion from a study displayed that practice readiness involves general basis of providing safe client care; having a balance of knowing, thinking and doing skills; and integrating these skills together to be practice ready. (Wolf et al., 2009).

Readiness to practice has been described in accordance with competencies that student nurses must achieve consequent to completion of their training (Dlamini et al., 2014). There has been almost no research regarding the readiness of newly qualified OHNPs to practise in South Africa.

Characteristics of a competent nurse who has completed studies usually demonstrate the application of evidence-based practice, the ability to function with other members of a multi-disciplinary team, problem solving and decision making skills, and knowledge of ethical considerations (Dlamini et al., 2014). In a study by Dlamini et al., (2014) they stated that university deans felt confident about the nursing graduates they were producing but employers felt unhappy with the quality of the graduates. Literature regarding the competence of recent graduates reported that participants lacked self-confidence, technical skills, leadership and decision making skills (Dlamini et al., 2014) including varying feelings about their levels of competency and efficiency – for example, that they felt competent but had decreased feelings of ‘courage’ (Dlamini et al., 2014). To address this issue, Dlamini et al., (2014) proposed that a minimum of 50% of the curriculum should be based on clinical practice. It is well known that professional experience placement in the clinical field of nursing is an important part of nurse education that gives students the opportunity to put



theoretical knowledge into practice (Haddad, Moxham, & Broadbent, 2013). Nursing educational institutions can increase the clinical exposure of nursing students by placing them in real work situations in order to gain a genuine understanding of nursing roles (Haddad et al., 2013). The change from the educational environment to a practical environment is seen as a time of increased tension, role adaptation and ‘reality shock’ (Casey, Fink, Jaynes, Campbell, Cook & Wilson, 2011).

There is also a lack of guidance available to the new graduate who is adapting to a new role in nursing (Dlamini et al., 2014). Nurses have reported that they would like more clinical time, technical skills, real-life experience and practice, and to communicate with other health professionals, e.g. doctors, during their education (Casey et al., 2011).

According to Swider, Levin, Ailey, Breakwell, Cowell, McNaughton, and O'Rourke (2006) a nursing curriculum should use competencies to evaluate students' readiness to practise. The curriculum for nurses is led by standards that are associated with licensing and accreditation (Swider et al., 2006). Competency-based learning is a combination of knowledge and skills and the ability to fulfil competencies that are expected of a programme (Swider et al., 2006). In a study by Swider et al. (2006), it was reported in the evaluation of competency gaps in a curriculum, that leadership and thinking needed review. Swider et al. (2006) stated that specialist nurses who accomplished the competencies required for their practice contribute to the enhancement of work and, in turn, the wellbeing of the public.

The communication of the main competencies of a professional role can highlight the particular skills, knowledge and characteristics that need to be implemented to achieve its goals (Baldwin, Ford & Blume, 2009). According to Baldwin et al. (2009), competencies should be strong-bodied and clear about what is expected in terms of knowledge and skills. To be competent in the main competencies needed for a specialist nursing field is most

important, as the nurse is responsible and accountable to the receivers of healthcare (Baldwin et al., 2009). Competencies are essential components of education and practice (Baldwin et al., 2009).

A study that was done to determine the usage of competencies in actual practice found that the majority of the participants were convinced that the competencies fitted in well with their role as nurses (Baldwin et al., 2009). Dlamini et al. (2014) recommended that research was necessary to determine the competence of new graduates to create applicable actions to guide and support students.

According to Watt and Pascoe (2013), clinical experience contributes to the readiness to practice. Livesley, Waters, and Tarbuck (2009) state that correspondence between stakeholders is very important, and a good relationship between employers and universities can provide that nurse specialists are prepared when leaving university and ready to practice. Previously, it was the responsibility of nursing education programmes to provide practice-ready nurses, but responsibility now lies with government, healthcare organisations, regulatory bodies and educational institutions (Wolf et al., 2009). This is a challenge as there needs to be constant monitoring and assurance that there are, firstly, sufficient personnel with adequate experience and, secondly, an effective plan for bridging the gap between completion of training and the start of employment (Wolf et al., 2009). Nursing programmes should include the aim of producing nurses who are well equipped with practical skills and who are dedicated to lifelong learning and training (Haddad et al., 2013). Nurses who graduate and display the ability to work in a team with good communication skills tend to experience the transition into the workplace as easier than those lacking such skills (Walker, et al., 2012).

The SANC has identified PBL as a method of choice in teaching and learning (Mekwa, 2000). PBL is a learning and teaching strategy which facilitates nursing development and

exploration of options, and is able to develop strategies that are based on reflective decision making (Mekwa, 2000). PBL makes use of problems experienced by students in the work setting, as well as case studies, to inform the class face-to-face, and the students direct the learning via their own experiences. This process enhances the development of critical thinking skills and reflective skills, which enables students to change and cope with diversity by innovative means. PBL is learner-centred, and the focus is on acquiring core competencies and learning outcomes (Mekwa, 2000). Some OHN programme in South Africa adopted a blended learning education approach using online learning together with PBL (Orton et al., 2015). PBL emphasises group work where students are actively involved in solving authentic case studies, which is well suited to OHN education (Ivicek, de Castro, Salazar, & Keifer, 2011). PBL enhances critical thinking skills and motivates learning, which develops students' professional practice in specific environments (Ivicek et al., 2011).

In a study on work readiness amongst health graduates, it was reported that most graduates did not perceive themselves as work-ready upon graduating. The skills and competencies that participants reported as not being work-ready for, were *inter alia* teamwork, confidence and familiarity with the work environment, coping with working conditions, and increased management responsibility (Walker et al., 2012).

Orientation programmes will help nurses to ease into the new workplace; this transition process requires nurturing, guidance and skill structuring from experienced nurses in the field (Lewis - Pierre, Amankwaa, Kovacich, & Hollis, 2014). A study on the work readiness of intensive care nurses found that embracing the new role was a main theme, which also included minor themes of overwhelming performance anxiety, adapting to the new environment, and embracing the new nurse role (Lewis – Pierre et al., 2014). In the same study, nurse mentors indicated a need for nursing schools to enhance the technical skills of nursing students, while stating that their theoretical knowledge was sufficient for entering

practice. Also included were issues with time management, which is not covered in nursing schools whereas, in actual nursing practice, that requires the application of specific techniques (Lewis – Pierre et al., 2014).

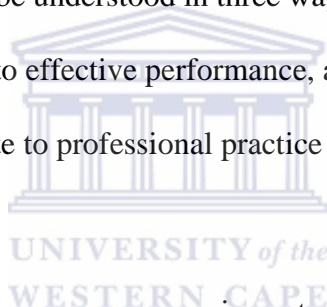
There is an expectation that new graduates quickly learn specialised skills and apply on-the-job learning, with workplaces assuming that new graduates' training included the competency and expectation to perform important skills in a safe and independent manner (Lewis – Pierre et al., 2014).

Competence is a difficult notion that is complex to define and more challenging to measure; assessors often give incompetent students the benefit of the doubt, unless there is evidence of unsafe practice. Competence can be understood in three ways: task-related skills, characteristics that are important to effective performance, and combining knowledge and skills with the attitudes appropriate to professional practice (Levet Jones, Gersbach, Arthur, & Roche, 2010).

Levet et al. (2010) added that some areas are more important than others regarding practice, and queried who decides what to include and what not to include when doing assessments, which raises the point of whether clinical competence can truly be assessed by means of various tasks or competencies – which may be performed well – or is assessment of the interaction between competencies of greater importance.

Studies have shown that new graduates who experienced an environment with a lack of support from existing staff viewed transition as being thrown into the deep end, whereas others found transition programmes to be a form of shelter while finding their feet and building up confidence (Dlamini et al., 2014).

Some subjects felt competent but lacked the confidence to make decisions or perform technically skilled work (Dlamini et al., 2014). New graduates have an enormous role to fulfil



not only in replacing the older generation of nurses but also ensuring continuance of the profession (Dlamini et al., 2014); this falls in line with previous statements in the present thesis that OHN should fulfil the new expanded role in combination with the older traditional role.

## **2.6 Summary of current chapter**

In the chapter, the researcher has discussed various articles that fell under the subject of: occupational health in South Africa, occupational health nurse practitioner, and readiness and preparedness to practice. The researcher touched on statistics which indicated the large number of 217 680 OH-related injuries over a two-year period in South Africa. The WHO and ILO are working together to reduce the number of OH injuries worldwide. OHNPs are currently found more in the private sector providing various services as employees of the company or on a contractor basis. The current plan for the transformation of the health system in South Africa includes OH and the importance of developing this field and further OH services. Of the many benefits that an OHN service offers, improvement of the general wellbeing of employees is one of the key aspects. The OHNP is a specialist in the OH field and undergoes specialist post-basic training. The OHNP is responsible for keeping up to date with OHN through continued professional development, which enhances knowledge, skills and attitudes. Internationally, the competencies of OHNPs worldwide correlate with those of SA OHNPs, and both make independent nursing judgements in providing programmes and services within an autonomous speciality. These competencies include professional, ethical and legal practice; clinical practice; care provision and management; quality of practice; management and leadership; and research. Readiness and preparedness to practice is not a new issue in nursing, and has been discussed around the world; there are numerous articles addressing this issue and especially in relation to undergraduate nursing students. A competent nurse is one who can apply evidence-based practice, function with members of a

multi-disciplinary team, and who has problem solving and decision making skills and knowledge of ethical considerations. PBL is the method of choice in teaching and learning, as this form of learner-centred education and training focuses on competencies and learning outcomes.



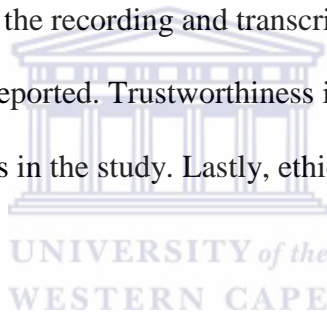
## CHAPTER THREE

### RESEARCH METHODOLOGY

#### 3.1 Introduction

The researcher conducted a qualitative study using an exploratory descriptive design where interviews were held to explore the perceived readiness of graduating OHNPs to practice OHN according to the competencies set out by the SANC.

The present chapter describes the research method used in the study, namely an explorative qualitative descriptive design. The research setting, the population, sample and sampling technique are discussed. Data collection, namely a semi-structured in-depth interview are explained. Data analysis included the recording and transcribing of interviews and sorting them into a range of themes, are reported. Trustworthiness in qualitative research is discussed and the methods used to attain this in the study. Lastly, ethical considerations are presented in detail.



#### 3.2 Research Approach

Qualitative research explores real life conditions as experienced by individuals, and the researcher has embraced numerous truths; thus, each person has their own understanding of reality from an individual point of view (Erlingsson & Brysiewicz, 2013). Qualitative research is based on the subjective examination of human realities instead of objects (Erlingsson & Brysiewicz, 2013). The researcher forms part of the study and is the research instrument, which is believed to enrich the study. Qualitative research is a generic phrase that refers to a group of methods and techniques of gathering and analysing data that are interpretive or explanatory which are concerned with meaning (Noble & Smith, 2014).

Data are collected in a natural setting because qualitative methods aim to describe, explore and understand particular phenomena from the perspective of an individual or group (Noble

& Smith, 2014). The researcher collects and interprets the data which includes the researcher in the process of research as much as the participants (Corbin & Strauss, 2014). In qualitative research, the researcher plays an important role as the person who collects data, as in the case of the present study. The results of qualitative studies are expressed in numerous ways, each concerned with the methodology used, e.g. content analysis (Erlingsson & Brysiewicz, 2013). Qualitative research helps researchers to address issues in nursing education, and are described by the participants (Burnard, 2004).

The researcher can collect many forms of data that include interviews, observations and notes taken during the data collection process (Creswell, 2013). The researcher follows an inductive process whereby the researcher develops generalisations from specific observations (Polit & Beck, 2010).



### **3.2.2 Interpretive paradigm**

The interpretive paradigm concentrates mainly on recognising and relating the meaning of human experiences and actions (Levers, 2013). ‘Paradigm’ means a set of assumptions about basic structures in the world and how these structures interact, and appropriate methods for constructing and testing the theories behind these structures (Brink, van Rensburg, & van der Walt, 2012). Brink et al. (2012) explain that, in simple terms, a paradigm is an overarching philosophical framework of the way in which scientific knowledge is constructed. In this study, an interpretive paradigm underpins the study. Interpretative researchers believe that the social world is constructed by human beings and that it is people who give meaning to their social world (Phothongsunan, 2010). The interpretive paradigm concentrates mainly on recognising and relating the meaning of human experiences and actions (Levers, 2013).



### 3.3 Setting

According to Grove, Burns and Gray (2012), the research setting refers to the site where the data collection takes place. The setting for this study was a university located in KwaZulu-Natal, one of the identified HEIs that offer the programme in OHN in South Africa. The programme consists of six subjects, of which two are experiential training or clinical practice which includes a total of 160 hours in a clinical OH setting. The course includes audiometry, spirometry, health assessment, basic life support and HIV/AIDS management. The programme includes four academic subjects: occupational health, occupational health nursing, nursing management and nursing research, and a variety of assessments in both theory and clinical skills. Students are placed by the lecturers responsible for the course, with competent OHNP mentors in OH settings throughout KwaZulu-Natal so that they receive credible OH clinical experience. OHNP mentors are often members of the South African Society of Occupational Health Nurse Practitioners and are part of a mentors support group run in the Department of Nursing for OHNP mentors. This support group meets four times a year to offer support and continuing education for mentors. The Department of Nursing has an industry advisory board to which some OHNPs are invited in order to advise the department on current issues in OH and in order for the training to be kept relevant to the industry.

The OHN programme runs part-time over two years, although it can be done full-time in one year. There are currently 55 OHN students enrolled in the programme and twenty students graduated in 2015, following two years of instruction – 2013 and 2014 or then one year full time in 2014. These students were invited to part take in the study. On successful completion, the student is awarded a qualification in Clinical Nursing Science (R212) in OHN which will lead to the registration of an additional qualification in OHN at the SANC.

### **3.4 Study Design**

The present study design is an explorative qualitative descriptive study. The researcher intended to understand the perspectives of participants and explore the meanings they gave to phenomena; hence the use of a qualitative approach (Green & Thorogood, 2009). Qualitative descriptive studies show no specific methodological origin, as the researcher simply notes that a qualitative study was conducted and these qualitative studies have no formal name (Polit & Beck, 2010).

#### **3.4.1 Participants and sample**

In the present study, the participants were 20 OHN students who were registered at the identified campus and who were graduating in 2015. The students eligible for the study were registered nurses working in a variety of nursing areas ranging from specialist units in hospitals (such as intensive care), primary healthcare nurses working in primary health settings and some working in OH settings. All were registered to complete the degree in OH nursing.

The participants had to be registered in the OH nursing programme and be in their final year of study at the institution, completing at the end of 2015. This indicated that students would have completed the requirements for the programme to be included in the research study and represented very different levels of knowledge, understanding and experience of OH.

Exclusion criteria included participants who were not enrolled in their final year as OHN students.

##### **3.4.1.1 Sampling**

The researcher used purposive sampling, which is a non-probability sampling technique to select participants. Purposive sampling is a process where participants are selected

purposefully according to predetermined inclusion criteria (Green & Thorogood, 2009). Permission was granted by the head of the Department of Nursing in Kwazulu Natal to approach the OHN lecturer about obtaining access to the students. The researcher received a list of all OHN students that were registered for the OHN programme and due to graduate in 2015, which included names and email addresses. Twenty students met the inclusion criteria and were invited to take part in the study. The researcher sampled until data were saturated. ‘Saturation’ means the collecting of data until the point where a sense of closure is attained because new information then emerges from the data collected (Polit & Beck, 2012). By the seventh interview saturation was reached.

#### **3.4.1.2 Instrument**

The study was conducted using semi-structured in-depth interviews. An interview schedule (Appendix C) was developed with the main purpose to understand participants’ perceived competence to practice as OHNPs in light of the SANC competencies set out for OHNPs. This schedule included key questions followed by probing questions where necessary. The interview began with an unstructured question: ‘You have read the SANC competencies for an OHN, and I wonder how you feel about your competence to practice as an OHNP in the light of those competencies?’ The interview questions were directed by the objectives and research questions of the study.

#### **3.4.2 Data collection**

The researcher asked the OHN lecturer to inform students that the researcher would contact them via email about the study, which was done as an introduction owing to the researcher not being able to meet participants face-to-face, and to introduce the research topic.

The researcher sent an email containing the information sheet which supplied information about the study, and the researcher’s email and telephone number. Each participant was asked

to indicate via email whether or not they would be interested in participating and, if so, to provide a telephone number where they could be contacted. The first response came three days after the initial email, and the researcher asked the respondent to complete the consent form and return it via email, and set a time and date for the telephonic interview. On the morning of the scheduled telephonic interview, the researcher sent a reminder message to confirm the interview time for that day. The researcher called the participant at the appointed time; in two cases, the researcher had to end the telephone call and call back within a few minutes or later in the day because of phone reception problems, and one participant having to deal with an emergency at the workplace.

The interviews were conducted by the researcher in English as this was the medium of education at the institution. The duration of an interview was between 30 and 60 minutes. During the interview, the researcher used an audio recorder and made field notes (Appendix C). The researcher tested the recorder before the start of each interview. The researcher also used an application that recorded telephone calls via a cell phone. The application was disabled after each interview and enabled before a new recording was begun. During the interview, the researcher took notes which captured details such as the participant sighing, laughing or changing their tone of voice. All the interviews but one were conducted by telephone, with the exception being conducted at a coffee shop which was chosen by the participant. The telephone interviews took place at various times that the participants requested during working hours, after working hours, and two during a weekend. Before the start of each interview, the researcher reminded the participant that the interview was being recorded and did they have any objections to this. The interview opened with a few demographic questions. The researcher made reflective notes on the interview guide after each interview, which was done to ensure the accuracy of the interview and to build an audit trail for each interview by the researcher. A total of seven in-depth interviews were

conducted with seven participants who agreed to participate in the research study; the data collection process took place during January and February 2016.

#### **3.4.2.1 Pre-test interviews**

The aim of a pre-test study is to perfect the methodology of the research study; it is done on a smaller scale than that of the main study (Ingham-Broomfield, 2015). In the present research study, the aim of the pre-test was to test the ability of the researcher to conduct in-depth interviews and the precision thereof. With a pre-test study, difficulties can be identified and rectified by addressing such issues (Ingham-Broomfield, 2015). The first interview of the present study was considered a pre-test interview. The audio recording was transcribed verbatim and, together with the actual recording, was sent to the researcher's supervisor who provided valuable feedback after listening to the recording and determined that the researcher was able to conduct in-depth interviews with the participants. The feedback included the following: during the first interview, the supervisor noted that the participant talked at length about his/her work duties and the type of duties performed on a daily basis. This was a very long interview but added no value to the research objectives. The supervisor advised the researcher to maintain focus on the objectives of the study at all times and to bear the objectives in mind while conducting the interview.

#### **3.4.3 Data analysis**

Data analysis concerns the categorising, ordering, manipulating and summarising of data into meaningful terms (Brink, Van Der Walt, & Van Rensburg, 2006). Thematic content analysis was used as the data analysis method. This is the most basic form of qualitative data analysis of content to categorise the common themes that arise from the data; its purpose is to display participants' important ideas (Green & Thorogood, 2009).

Thematic content analysis was applied in the present study as described by Percy, Kostere and Kostere (2015), whereby the researcher listened to the interview audio recording once, and then again, and then transcribed the interview verbatim.

The data were reviewed; the researcher familiarised herself with the data from the first interview and highlighted any wording that appeared significant. The highlighted data were reviewed and the researcher determined if this was related to the research question. Data that did not seem related to the research question were placed in another folder (to be used by the researcher to again review the same data at a later stage).

Data that were collected and transcribed were then coded. Coding involves inventing and applying categories to organise data (Brink et al., 2006). Data that appeared to be related or connected are examined for patterns. The researcher read and re-read the transcripts and field notes. This was a comparative process in which the researcher used the transcripts and field notes and compared them with each other to identify themes that might appear to be general findings in the data set (Green & Thorogood, 2009).

The researcher listened to the first participant's recorded interview and transcribed it. The other recordings were sent to an independent transcriber who provided the researcher with a confidentiality contract before proceeding to transcribe the remainder of the interviews verbatim. To ensure rigour, the coded sheets were sent back to each participant to verify their experience and that they contained what they had said, which counted as a form of member checking. The first two transcripts were analysed by the researcher and her supervisors to understand and ensure completeness of the data analysis process. The remainder of the process was followed in continuous contact and communication with the researcher's supervisors.

Once all the transcripts had been processed, the researcher read through all the transcripts while listening to the respective audio tapes of each participant. Constant comparison was done throughout the data collection and analysis process. During the data analysis, the data that corresponded with a certain category were identified and placed within the corresponding category. All categories were used, and the researcher could look for the appearance of overlapping themes. The patterns were combined into themes. When all the data had been analysed, the researcher arranged all the themes to correspond with their underlying patterns. This lengthy process continued until all transcripts had been carefully analysed in terms of their meaning. The final themes and sub-themes were discussed with the researcher's supervisors. The researcher wrote a detailed analysis describing the each theme, clarified by supporting quotes from the data (Percy et al., 2015). This analysis follows in Chapter Four.

#### **3.4.4 Rigour in the study**

Rigour is evaluated with regard to the detail put into the design of a qualitative study, the precision of data collection, and the completeness of data analysis (Grove, Gray, & Burns, 2014). Rigour is most important in qualitative research because it adds to the credibility and value of such studies (Grove et al., 2014). The researcher is part of the research study and an instrument in the data collection, and is expected to ensure reliability through various strategies such as credibility, transferability, dependability and conformability (Grove et al., 2014).

##### **3.4.4.1 Reflexivity**

In qualitative research, reflexivity means critical reflection on oneself and making notes of personal experiences that could influence data collection and interpretation. The researcher used a notebook to record relevant thoughts (Polit & Beck, 2010). Throughout the study, the researcher discussed and took into account her own conscious awareness, and reflected on it

by keeping a notes that described her own truthful perspectives (Appendix C). The researcher took notes during each interview which contained key information such as the date, time, topic and participant (Appendix C). She also made notes of observations during the interview, e.g. if the participant laughed when asked a probing interview question, the researcher wrote: ‘laughing... seems to have experienced this before.’ The researcher wrote down additional questions to ask or any hunches related to what she heard on the phone. Personal thoughts, feelings and reactions were recorded in these notes. The researcher attempted to be as passive as possible and unassuming when conducting interviews. Making these notes about her feelings and observations assisted when the interview recordings were transcribed, to ensure that nothing important was missed or misinterpreted.

#### **3.4.4.2 Trustworthiness**

To ensure trustworthiness in a qualitative study, the foregoing approaches are taken to ensure credibility, transferability, dependability and conformability (Brink, Van der Walt, & Van Rensburg, 2006). Qualitative research has to demonstrate trustworthiness in providing rigour and strength to the study validity and reliability (Shosha, 2012).

#### **3.4.4.3 Credibility and Dependability**

According to Lincoln and Guba (1985), credibility refers to confidence in truthful findings of the study. Firstly, credibility is ensured through the number of processes. The researcher kept field notes that assisted the accuracy of the data that were collected. Secondly, the researcher engaged in exploration of the participants’ experiences as OHN students after having personally been enrolled in the OHN programme in the past, and reflection notes were kept in a personal notebook to minimise personal bias that might have occurred during the process. The researcher analysed the data with another coder and the researcher’s supervisors. Lastly, participant member checking was done by the researcher; this included providing the



participants with their individual interpretation of data analysis to verify that the data obtained and their experiences were as they had said.

Dependability displays the consistency and repeatability of the findings (Lincoln & Guba, 1985). Dependability strategies throughout the study included careful documentation and a decision trail (Polit & Beck, 2010). During data collection, dependability strategies included member checking of participants (Polit & Beck, 2010).

The researcher used the following strategies to increase the dependability of the study: (1) a dense description of the research methodology was provided; (2) the recordings make provision for returning to the data at any point; (3) there is an audit trail throughout for revision of the transcripts and notes; (4) the researcher kept clear and accurate records of the research conducted, which describes the detail of the research process, and which can be audited; (5) the researcher collected data on various days of the week and times ranging from early in the morning to late at night; and (6) the researcher coded the findings along with the research supervisors to minimise bias during the analysis process.

#### **3.4.4.4 Transferability**

Transferability refers to the findings being applicable in other contexts or similar situations (Lincoln & Guba, 1985). The findings of the present study will possibly be experienced in different manners in other areas at other institutions applying the same study methodology. The researcher supplied a detailed description of the research setting and methods that were used in the study, and the results provide a thick description that includes detailed descriptions of the participants and their settings.

#### **3.4.4.5 Conformability**

Conformability refers to how much the findings display respondent-provided information and not researcher bias, motivation or interest (Lincoln & Guba, 1985). Findings should reflect

participants' views and the conditions of the inquiry, and not the researcher's perspectives (Polit & Beck, 2010). Strategies include careful documentation, a decision trail, development of a code book, triangulation, stepwise replication, peer review and an inquiry audit (Polit & Beck, 2010).

The researcher developed an ongoing audit trial by using a systematic approach and included raw data in the form of the transcripts, theoretical notes, reflexive notes, and a pilot interview with recommendations.

### **3.5 Ethical considerations**

The Nuremberg Code of 1947 was the first guideline to protect the rights of research participants (Brink, 2010). This code stipulates that voluntary consent be obtained; there should be justification of the research for the good of society with a proper balance between risk and benefit; there should be effective protection of participants from harm; participants have the right to withdraw from the study at any time; and researchers should be qualified for the research (Brink, 2010).

The Nuremberg Code and the Declaration of Helsinki are the basis for many ethical research guidelines developed by governments and professional organisations who conduct research on human subjects (Brink, 2010). The three basic ethical principles that guide researchers are: respect for persons, beneficence and justice (Brink, 2010). These principles are built on human rights that need safeguarding in research, and include: the right to self-determination, privacy, anonymity, confidentiality, fair treatment and protection from discomfort and harm (Brink, 2010).

Informed consent forms part of protecting the rights of participants. The researcher provided information regarding the research study, and the participant can only give consent after all

information has been given about the benefits and risks of the study. The researcher should also inform participants that they can withdraw at any time during the study (Brink, 2010).

The Senate Research Committee of the University of the Western Cape approved the methodology and ethics of the study, and permission was obtained to conduct the study at the university. Permission to approach OHN lecturers and students was obtained from the Head of Department (HOD), Department of Nursing, at the University in KwaZulu - Natal. The researcher adhered to the following principles during the course of the research study: informed consent, confidentiality, anonymity, respect, beneficence and justice.

### **3.5.1 Informed consent**

Informed consent can be defined as doing something out of one's own freewill with a clear understanding as to what the consent is given upon, this done once a person has been given all the relevant information needed to make a decision (Fouka & Mantzorou, 2011).

Participants were informed of what the research entailed and its procedures, risks and benefits. All participants included in the study had the choice to participate after being provided information regarding the study. The researcher informed the participants that they had the right to withdraw at any time and that there were no remuneration for part taking in the study nor any personal expenses. Consent forms were given and signed by all participants who took part in the study. They were allowed to withdraw at any time during the study. The researcher was available to answer any questions and concerns. No harm was anticipated for those participating in the study should there be any discomfort the student will be referred to the lecturer. Participants were informed of the audio recording, and the recordings were available to participants should they wish to review them.

### **3.5.2 Confidentiality**

Confidentiality refers to the manner in which the researcher manages private information to protect the identity of the participants (Fouka & Mantzourou, 2011).

Participants were treated with respect and consideration, and none was forced to participate in the study. Participants were assured that their information would be kept confidential and all documents locked away for safekeeping. No participant names were used in the study and participants thus remained anonymous in the dissemination of findings. Interviews were identified by codes. All data were stored and locked in a secure steel cupboard for the duration of the study. Study codes, coded according to a system known to the researcher only, were allocated to all recording and transcripts, identifying participants solely by a unique code. All identifiable information (e.g., place of work) was eliminated from transcripts.

### **3.5.3 Respect**

Participants were respected throughout the study, and they were treated with dignity and respect. No vulnerable groups took part in the study. The researcher was punctual, honest and consideration of all viewpoints.

### **3.5.4 Beneficence**

The researcher should protect the participant from any harm or discomfort (Fouka & Mantzourou, 2011). No harm or discomfort was anticipated for those who participated in the study. Although the risks associated with research are minimal, the researcher was exploring personal experiences with in-depth interviews which could have had an emotional effect on participants. The researcher informed participants that, should they feel the need to debrief or experience feelings of emotional stress, a counselling service would be made available, and reassured participants of the level of confidentiality and anonymity. The researcher informed

participants that future OHN students might benefit from the findings of the study when educators review the programme.

### **3.5.5 Justice**

The participants should be selected in a fair manner and no vulnerable groups may be used during the research study, the research should also be beneficial to the participants (Fouka & Mantzorou, 2011).

All participants in the present study met the inclusion criteria. Although the study would not have a personal benefit to those taking part, knowledge gained from it might benefit future OHN students. Fair selection of participants took place and all the participants met the inclusion criteria had a chance to participate in the study.

### **3.6 Summary of chapter**

In the current chapter, the researcher discussed the qualitative research approach which describes real-life experiences of participants taking part in a study. An explorative qualitative descriptive design was used in the study, and participants were purposively sampled. The researcher used semi-structured in-depth interviews to collect data from participants. The population included OHN students who were graduating in 2015 with the qualification of an OHNP. Twenty students were sampled to take part in the study, each receiving an email invitation explaining the study purpose and asked to respond by email, indicating participation, including the consent form that was attached. Interviews were conducted by telephone except for one interview that was face-to-face. The researcher listened to the audio tapes and the interviews were transcribed verbatim. The researcher used thematic content analysis to analyse the data, and ensured trustworthiness of the study by ensuring credibility, dependability, conformability and transferability. The researcher adhered to ethical principles throughout the study, confidentiality and anonymity were ensured, and

participants were kept anonymous by assigning a number to each participant's interview that was only known to the researcher. No personal details were shared and participants' workplaces were mentioned. Participants were treated with the utmost respect, and the principles of beneficence and justice were applied, throughout the study.

The next chapter (Chapter 4) discusses the research findings that emerged from the data collected, and the researcher describes participants' demographic data and key themes and subthemes.

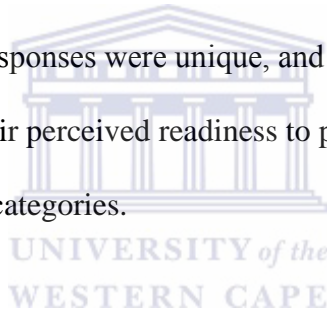


## **CHAPTER FOUR**

### **RESEARCH FINDINGS**

#### **4.1 Introduction**

This chapter presents the results of the data that were collected and analysed from the study participants. The two objectives of this study were: (1) to explore and describe the perceived readiness amongst OHN students to practice OHN according to SANC competencies, and (2) to explore and describe OH practice areas for which OHN students feel they have a low level of readiness. In-depth interviews were conducted with OHNPs to explore and describe their perceived readiness to practice OHN according to the SANC competencies. The chapter includes participants' demographic data and the themes and categories that emerged during data analysis. The participants' responses were unique, and direct quotes are used to illustrate the meaning as they described their perceived readiness to practice OHN. The data are presented as themes with related categories.



#### **4.2 The Participants**

The participants comprised 7 OHNPs from various OHN services and industries who had completed the requirements for the OHN programme for the qualification of clinical nurse specialist (occupational health) (R212) in 2015 (Table 3). The OHNPs had completed the OHN programme in 2015 and their ages ranged from 34 to 54 years. There were 1 male and 6 female participants; all had general nursing experience ranging from 5 to 30 years and OHN experience between 2 and 10 years. One participant had an honours degree while the other participants had diplomas in general nursing (Table 3). The researcher sampled until data were saturated which occurred with the seventh interview.

**Table 3: Participants demographic profile**

Participant number	Age in years	Gender	Prior qualification	Experience in years
I1	42	Female	Diploma General Nursing	12
I2	53	Female	Diploma General Nursing	30
I3	39	Male	Diploma General Nursing	6
I4	44	Female	Diploma General Nursing	20
I5	35	Female	Diploma General Nursing	6
I6	34	Female	Honours Degree General Nursing, Midwifery and Psychiatry	5
I7	42	Female	Diploma General Nursing	8

All but one participant were members of SASOHN. The 7 participants were all OHNPs working in OH settings that included food processing, construction, mining, and environmental and corporate settings (Table 4).

**Table 4: Participant OHN profile**

Participant number	OHN experience in years	OH area	SASOHN
I1	3	Harbour/marine	No
I2	5	Construction	Yes
I3	5	Agriculture	Yes
I4	4	Service sector	Yes
I5	2	Food production	Yes
I6	9	Logistics	Yes
I7	10	Service sector	Yes

The participants worked in various industries within OHN with different features from one another, where OHNPs have to identify and manage work-related health risks that include physical (include high noise levels, radiation, repetitive motion and lifting), chemical (e. lead), biological (viral and bacterial infections) and psychological factors (relate to continuous shift work and stress).

### 4.3 Central story

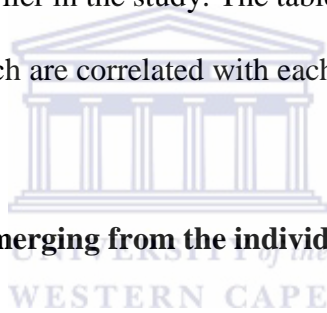
Participants generally felt ready to practice OHN according to SANC competencies after completion of the OHN programme with six participants indicating that they were confident to practice OHN with only one indicating they would feel more confident with some



experience in OHN. Participants felt that the OHN programme added value to the experience they had in OHN and they could now apply their theoretical knowledge with their existing knowledge of OHN. However, this readiness was not consistent across all competencies with poor readiness reported for leadership and management and research. Participants identified specific educational activities in their programme that contributed to their different levels of readiness.

#### 4.4 Themes of OHN readiness to practice according to SANC competencies

An overview of the themes and categories of readiness to practice OHN that emerged from the study is presented below (Table 5). Table 1 summarises OHN competencies as set out by the SANC that were described earlier in the study. The table shows the themes and subthemes that emerged from the study, which are correlated with each domain of the OHN competencies.



**Table 5: Themes of readiness emerging from the individual interviews of participants.**

Themes	Subthemes	SANC Domain
1. Perceived confidence to practice OHN	<ul style="list-style-type: none"> <li>• Perceived competence to practice using OHN skills, knowledge</li> <li>• Factors contributing to confidence</li> <li>• Perceived confidence to practice health education and health promotion</li> </ul>	Clinical practice – care and provision management
2. Perceived readiness for unique field of OHN	<ul style="list-style-type: none"> <li>• Readiness in terms of OHN legislation and policies and procedures</li> <li>• Factors contributing to readiness</li> </ul>	Professional, ethical and legal practice
3. Perceived readiness for professional and self-development in OHN	<ul style="list-style-type: none"> <li>• Awareness of training needs – prevention of stagnation among OHNPs</li> <li>• Belonging to professional organisations</li> </ul>	Quality of practice and Continuing Education
4. Perceive readiness for leadership role in OH management	<ul style="list-style-type: none"> <li>• Poor readiness for management role in OHN</li> <li>• Factors contributing to readiness of leadership and management in OHN</li> </ul>	Management and leadership
5. Perceived readiness for research role in OHN and future implications	<ul style="list-style-type: none"> <li>• Feelings about research and its future importance</li> <li>• Factors contributing to readiness for research role in OHN</li> </ul>	Research

#### **4.5 Theme one: Perceived confidence to practice OHN**

The SANC requires OHNPs to be competent in clinical practice, which includes health promotion, health education and using the scientific nursing process (assessment, diagnosis, care planning, implementation and evaluation) to care for their clients while building therapeutic communication and relationships.

This theme emerged from the broad question to participants about their perceived feelings of their readiness to work as independent OHNPs in their respective industries; they stated that they were confident about providing a quality OHN service to employees. Participants felt professionally enriched by the OHN programme, and some stated they now understood why they were doing what they were doing.

Three sub-themes emerged in this theme, namely: Perceived competence to practice using OHN skills, knowledge; Confidence to practice health education and health promotion; and Factors contributing to confidence to practice as an OHN.

##### **4.5.1 Subtheme 1: Perceived competence to practice using OHN skills and knowledge**

Only one participant felt not confident to practice, and stated that additional OH experience with guidance was needed to generate confidence to act as an independent practitioner.

*At the moment, I can say I feel I am not yet ready to work independently... maybe I still need some guidance here and there... maybe about another 12 months. [13]*

Most participants stated that they felt competent and confident to practise as an independent OHNP; one participant added that she felt very confident to practice in OHN.

*I think I am very confident now [11]*

*I definitely feel more competent now that I've done the course; I understand a lot more than I did when I was actually working... [12]*

*Okay as far as I am concerned... I feel quite confident enough... we work as independent practitioners [I4]*

*...the course has empowered me a lot to understand the entire part of it... [I4]*

*I did not have much experience but I grew every day... [I5]*

*I feel confident [I6]*

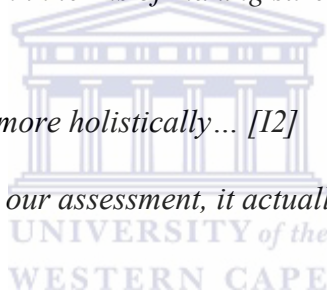
*The knowledge that I got whilst I was doing the course, it helped things fit in better... I feel confident... I work very independently... [I7]*

OHNPs stated they are able to combine research and apply evidence when they practice OHN.

*... I can apply research, I can apply OHN practice, I can combine evidence-based... those three will help me in in terms of making sure I give my patients quality care [I1]*

*... looking at the person more holistically... [I2]*

*... our judgement and on our assessment, it actually helps us grow and be confident enough [I4]*



Most participants felt confident in conducting physical assessments and understood the underlying logic, which showed insight into the reason for conducting assessments:

*...conducting health assessments I feel quite confident... I mean as long as you understand the rationale of what you are doing [I4]*

*I feel that I am skilled in physical assessments... [I5]*

Most participants felt that they had some background in OHN owing to the fact that they were exposed to OHN upon starting the OHN programme, but stated that the course enhanced their knowledge, skills and insight.

Concerning teamwork, there were participants who felt confident in communicating with various team members in this multi-disciplinary area of nursing. They also felt competent in

various activities because there was always collaboration between various members of the team. Participants also indicated feeling confident in having a person to call or ask who is in a position to give more insight on a situation, which added to their knowledge.

*...something we do every single day so I don't really have any problems with that... if we do, we have a doctor that is available telephonically... [I7]*

*... working as a team... we've got 16 occupational health nurses...you always have a second or third person that you are working with [I7]*

*...fortunately, we have got an occupational health doctor twice a week... anything I am not comfortable with... [I2]*

*... OMP booked for one hour... twice a week... she is a wealth of knowledge. [I2]*

*... I would use OMP first and foremost and then secondly... one of my lecturers who got her doctorate last year... and there is another one they would go to... they are amazing researchers and they know a lot about everything [I2]*

#### **4.5.2 Subtheme 2: Factors contributing to perceived levels of confidence**

Various participants indicated the value of experienced facilitators who add to their work readiness and that the short courses during their programme build onto their preparedness for OHN practice. It was also mentioned that, even with previous experience in OHN, the short courses added to students' existing knowledge. Participants felt that accompaniment by experienced OHNPs in the field added value to their experience during the course.

The participants below indicated what assisted them in becoming confident to practice OHN.

*... we had very good short courses during the course... and then the physical assessment course was insightful... I learnt a lot of things from small physical signs and symptoms that one would not necessarily know about if no one explains to you. [I6]*

*... I was pretty competent and then in our university here we had the most phenomenal lecturer... who came in for three days and she literally did head-to-toe examinations on what we're doing, what we were doing it for, what we were looking for... signs of lead poisoning and, you know, signs... there was a practical portion to it that was examined and you had to pass it. [I2]*

In the present study were participants who had been working in the OHN field without the necessary qualification and who stated on completion of the OHN programme that their daily activities was put into perspective. They now have the insight and ability to do what they had been doing all along in OHN but now adding the value of knowing why and what they are doing.

*Since I have done the course initially – at first I didn't know where my capability... I think the course has empowered me a lot to understand... [I4]*

*...professionally it was definitely an eye opener [I2]*

*...previously I didn't look at occupational health from a correct occupational health standpoint... I did what I had to but didn't understand why I was doing it. [I2]*

Some participants added that the reason for feeling confident to practice as an independent competent OHNP was because of previous and current experience in the OH environment. Other participants mentioned the presence of a more experienced OHN or mentor who assisted them in their studies. The short courses during the programme were valuable to all participants and brushed up some skills and the development of new skills, such as physical assessment practical.

*I was working luckily with a senior sister in the clinic... I didn't have much of the experience but we grow every day. [I5]*

*I think because I've been in occupational health before I did the course, it actually just helped things fit in better. [I7]*

*I feel confident because I am experienced; if I didn't have the experience, I would not have felt too confident. [I6]*

For other OHNPs, not only was formal training necessary but also a mind shift from the hospital environment, where nurses are used to treat and cure ill clients, to an environment where OH is concerned with health promotion and prevention and generally healthy clients. Participants felt that experience in the field would help them to move from curative efforts and providing medication, to health promotion and prevention of diseases and illnesses.

*...was coming straight from the hospital... the environment in the hospital is so different to this one... there are no sick people... you are nursing the well patients [I5]*

#### **4.5.3 Subtheme 3: Perceived confidence to practice health education and health promotion**

Participants indicated that health education and health promotion form an important part of OHNP duties in the workplace, and that they felt confident in providing this service to employees. Participants stated that health education and promotion is an interesting area of OHN and felt that information was meaningful to employees and added value to their daily work and personal lives. During the programme, OHN student had to complete a health education and promotion project which was a hands-on group project that formed a big part of the OHN programme. This project added value to their knowledge base of health education and promotion, and the experiential learning was of great worth to participants.

*... we do health education on, let's say, a dedicated area... health education in terms of hazards... we go to each department [I1]*

*... I'm an educator anyway you know by nature... during the course definitely refined my ability to do that [I2]*

*...intense health day ... big focus in second year of study, it was quite a big module... I feel very confident to go ahead... [I2]*

*“In my work I have run many health promotion programmes, but due to the course that was one of our big assignments...I think that was a good thing to have as an assignment. [I6]*

Participants felt that OHN should be involved in all aspects of health education and promotion and formed an important role in OHN, and they felt confident in this area of OHN.

*Health promotion... I feel that the occupational health nurses should be allowed to play, like, a major role in health promotion [I3]*

*Wow, the health promotion programme, it is an exciting thing to do because you feel like you are helping, you are making a difference in people's lives... [I5]*

#### **4.5.4 Discussion of Theme 1: Perceived confidence to practice as an OHN**

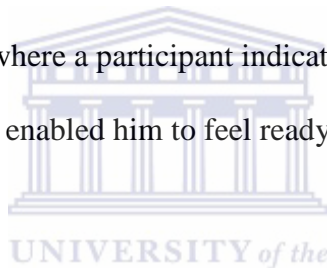
In the SANC competency clinical practice domain, it is stated that the OHNP should be actively involved in health promotion and prevention of disease, and should develop and implement wellness programmes in the workplace. The OHNP should identify health risks in the workplace and design a plan for employees (SANC, 2013).

##### **4.5.4.1 Confidence to practice as an OHN**

Participants indicated confidence in their work readiness and feelings of competence in working as independent practitioners. The OHN programme added worth to participants' knowledge of the field. Confidence is also gained with experience and increased exposure to OHN. Participants added that they were now able to view employees holistically, which combined many areas including health, wellbeing and prevention of illness and injury through health education and promotion. There was a strong feeling of confidence among participants to perform their daily OHN activities, understanding now, after the programme, why they were doing what they were doing, which indicates deepened insight into OHN. Participants felt confident to communicate with members of their team – the OMP,

management and members within the multi-disciplinary area of nursing. Participants added the value of experienced facilitators which added to their work readiness, and the short courses during their programme built onto their preparedness for OHN practice. Participants felt strongly about health education and promotion, and revealed confidence in participating and leading such programmes.

This contrasted with another study which stated that work readiness of graduate health professionals, participants stated that confidence in skills and knowledge were lacking at the beginning of their work role, but they gained confidence with experience (Walker, et al., 2012). Supporting literature suggests that skills and knowledge deepen and broaden over time as nurses acquire more working experience (Naumanen - Tuomela, 2001). This finding correlates with the present study where a participant indicated that experience in the field after the formal OHN programme enabled him to feel ready to practise as an independent practitioner.



#### **4.5.4.2 Confidence in providing specific skills in OHN practice**

Participants indicated that health education and promotion form an important part of OHNP duties in the workplace. Participants felt this was an interesting area of OHN and that the information was meaningful to employees and added value to their daily work and personal lives. A study on perceptions of OHNPs and their future roles reported that OHNPs were motivated to be involved in empowering employees through a better understanding of their health needs by incorporating wellness practices in the workplace (Mellor & St John, 2007).

#### **4.5.4.3 Confidence in Physical Assessment**

Participants are taught the skills of conducting physical assessments, which forms part of their competencies as set out by the SANC as an important activity in their daily work schedule. In succeeding as new and advanced OHN practitioners, physicians must believe in



and trust OHNP skills; this point was reported by participants in a study on advanced nursing practice (Nieminen, Mannevaara, & Fagerstrom, 2011).

#### **4.5.4.4 Confidence in Teamwork**

Regarding teamwork, there were participants who felt confident in communicating with team members in this multi-disciplinary area of nursing. They also felt competent in various activities because there was always collaboration between team members. Professional support by medical practitioners is very important, and the mutual professional collaboration and exchange of information and support for one another was reported by participants in another study (Nieminen et al., 2011). Participants also indicated feeling confident in having another person to call or ask who was in a position to give more insight in an unclear situation, which added to their knowledge; this corresponds with a study reporting that participants felt comfortable asking for help whenever they were confronted with a situation that they felt incompetent to manage. The study also stated that asking for help appears central to the role of a new graduate, which reflects the graduate's greater responsibility for patient wellbeing (Walker, Yong, Pang & Fullarton, 2012). This finding is in line with a study that reported that participants considered the value of effective communication with a diverse range of people in the workplace as portraying social intelligence by working collaboratively within a multi-disciplinary health team (Walker et al., 2012).

#### **4.5.4.5 Factors contributing to confidence to practice as an OHN**

Participants in a similar study indicated that a sound knowledge base is most important in having a good understanding of theory behind the practice, which increased confidence (Walker et al., 2012). A participant in that same study felt that having theory behind what one is doing can support one's actions in what one is doing (Walker et al., 2012).

Some participants added the value of completing the programme while having been in OHN for some time before commencing the course, which enhanced their professional development and OHN experience. Similar findings also emerged in a study by Naumanen-Tuomela (2001), stating there are many events before an OHNP becomes expert in the field. Expertise is grounded in professional competence and professionalism related to education, with a large knowledge base and skills in the field (Naumanen - Tuomela, 2001).

OHNPs were able to utilise their knowledge and develop skills in practice that arose from education in the field (Naumanen - Tuomela, 2001). For some OHNPs, it took more than only formal training but also a mind shift from the hospital environment where nurses are used to treat and cure ill clients, to an environment where OH is concerned with health promotion and prevention and generally healthy clients.

Various participants indicated that the short courses during their programme added to their work- readiness and that, even with previous experience, the short courses added to their existing knowledge. This point correlated with a study where the researcher stated that students can learn effectively while away from clinical settings and can be signed off as competent in alternative settings, e.g. simulation environment (Illing, Morrow, Rothwell, Burford, Baldauf & Davies, 2013). Participant feelings about physical assessments were reported as acquiring advanced skills which included examination of the patient which they had not done in the past, auscultate the lungs and heart, and palpate organs – and not only checking blood pressure and pulse as before (Nieminen et al., 2011). The short course regarding physical examination, amongst others in the programme, added great value to the participants, guiding them into the area of physical assessment which forms part of an OHNPs competencies.

#### **4.6 Theme two: Perceived readiness for the unique field of OHN**

The second theme that emerged from the data analysis was the perceived readiness for the unique field of OHN based on the participants' knowledge of OHN legislation and the relevant policies and procedures in place. All participants agreed that an OHNP should have a clear understanding of legislation, policies and procedures as they relate to the company and the services rendered. This aspect formed part of the theoretical component of the OHN programme which students felt contributed to the knowledge needed to be ready to practise.

Two sub-themes emerged in this theme, namely readiness for the unique field of OHN in terms of important OHN legislation policies and procedures and factors contributing to this readiness.

#### **4.6.1 Subtheme 1: Readiness to practice OHN in terms of important legislation**

Participants had strong opinions about relevant OH legislation, stating the importance of following legislation and be up-to-date, as this was a new and unique part of nursing.

Knowing what is expected of the OHNP concerning the understanding of policies, procedures and relevant legislation contributes to confidence in the OHN field and readiness to practice OHN.

*... abide by the South African Nursing Council.... Abide by the Occupational Health and Safety Act.... Basic conditions of employment... [I1]*

*...very important for me... know about all legal aspects....unique sector that I'm working... [I1]*

The SANC requires OHNPs to have a specific competency in professional, ethical and legal practice, and the OHNPs agreed it is a necessity for them to have knowledge of the relevant Acts so as to know what is expected from the employer and the employee in the workplace.

#### **4.6.2 Subtheme 2: Factors contributing towards readiness for unique practice of OHN in terms of legislation, policies and procedures**

Participants stated that, during the OHN programme, the management module assisted with preparation to practice OHN in terms of policies, procedures and providing OHN services within a legal framework.

*...creating policies and the management was also covered as part of management...*

*[I7]*

*Yes, I will feel confident...we did an assignment about policy making and it gave us different views on policies. [I6]*

*...we did a module for our course... I would definitely get involved. [I2]*

#### **4.6.3 Discussion of Theme 2: Perceived readiness for unique field of OHN**

A theme emerged about the perceived knowledge of the OHNP relating to legislation, policies and procedures about OHN and the importance of legislation compliance. Acutt and Hattingh (2011) state that it is important for all OHNPs to have up-to-date policies and procedures in their workplace and a file with details of legislation is applicable to their professional responsibilities and unique situation.

Participants had a strong opinion about relevant legislation in relation to OH. They indicated the importance of following legislation and to be up-to-date as this was a new and unique field of nursing. Participants indicated the main objectives of the OHS Act, which includes wide-ranging topics, the main ones being ensuring that working conditions are healthy and safe for the workforce (Acutt & Hattingh, 2011). Competence in legislation is not something

that can be measured as it is an integral part of the OHNP's daily work duties; regulations guide OH practice and therefore requires the OHNP to be competent. Similarly, in an article on OHNP perceptions of their future roles, it is stated that areas of practice that include practising in accordance with legislation, standards, codes of practice and guidelines, is a required level of competency (Mellor & St John, 2007).

Most participants felt confident about dealing with unfair practices or ethical dilemmas in the workplace and felt that, with firm protocols in place, one only needs to follow the standard operation principles concerning patient rights. One participant felt that ethical dilemmas in the workplace was not touched upon during their study programme. OHNPs are as subject to the law of the land as much as any other individual, but the actions and behaviour of OHNPs are also regulated by ethical principles, which increases the responsibility of the OHNP above that of the ordinary citizen who does not have these responsibilities (Acutt & Hattingh, 2011).

The SANC stipulates in the competencies of OHNPs that in the domain of professional, ethical and legal practice, OHNPs must consider ethical and moral principles when making decisions in the workplace and display a high level of competence when dealing with ethical issues (SANC, 2013). There are resources to assist OHNPs with ethical issues that should be utilised such as current legislation and codes of practice according to individual work institutions. Confidentiality is a very important aspect of practising OH in accordance with professional codes and regulations (SANC, 2013). Legislation should be applied where applicable to prevent any impairment of employee rights (SANC, 2013). The OHNP should advocate for the human rights of employees. OHN is a unique field in nursing, and OHNPs should perceive themselves as ready to practise within the domain of the SANC's competencies for OHN.

Most participants agreed that OHNPs need to have knowledge of relevant Acts to know what is expected from employer and employee in the workplace.

#### **4.7 Theme three: Perceived readiness for professional and self-development in OHN**

The SANC requires OHNPs to take responsibility for their own professional development and to continue their own personal and professional practice growth.

A theme emerged on the readiness for professional development with two sub-themes as participants describing their feelings towards continuous professional development (CPD) and the need to prevent stagnation, their knowledge of CPD and the value of professional organisations and the value they add to the profession.

##### **4.7.1 Subtheme 1: Awareness of training needs –prevention of stagnation among OHNPs**

Most participants were familiar with CPD and felt it was important in the profession of nursing and more so in OHN where nurses mainly function independently. Some participants also agreed that CPD is needed for nurses who have worked for many years in one environment where they function independently and often are the only healthcare professional, so as to prevent becoming stagnant in the workplace. CPD commenced prior to the OHN programme for some OHNPs, and others came into contact during the programme with resources and networking among fellow OHN students and lecturers. Some participants attended additional short courses during the OHN programme.

*I think it's good in terms for us who ... qualified long time ago... I have just done basic life support and now I could see that the basic life support that I knew 5 years ago is now different. [11]*

*I think it has to happen... older nurses, you know, kind of get into a rut and then you don't develop yourself. [I2]*

*...yes, I have heard about it, I think it's a good idea because a lot of your occupational health nurses stagnate in the same clinic for 10 years... it will be a bit of effort but the doctors have been doing it for years so why not us. [I6]*

*I did not get a lot of information on it but I have heard very briefly, yes... to keep updated the current, the new information [I7]*

*I am part of training, I'm looking for new information all the time to share with my team... keep myself updated because I need to update them. [I7]*

*Workshops which are related to OH and I attend those workshops... they are very educational. [I3]*

*Inside our company, they also have training quarterly, so I attend this just to keep updated. [I1]*

#### **4.7.2 Subtheme 2: Belonging to professional organisations**

Of the seven participants, only one was not a member of SASOHN. All participants felt that SASOHN is a valuable source of information and acts as a resource to many OHNPs who are not able to develop themselves all the time. All agreed that SASOHN is always up to date with new trends in OHN. One participant was very excited when speaking about the online chat that one can log in to and pose questions to OHNPs from all over the world who can then present their opinions and information. Participants felt that being a member of SASOHN provided a pool of resources and information that assisted in the readiness to practice OHN.

*SASOHN... they are an amazing network... there are women there who have worked in occupational health for many, many years and the network so amazing. [I2]*

*I think the most important thing to keep me updated is to actually stay on the internet... lot of information coming out there, I mean new latest information. [I3]*

*I have just applied to SASOHN... attend their meetings... very educational. [I3]*

*...there are always changes that come, that you encounter or development... SASOHN always updated with the latest trends and also you can log into occupational health nurses' website... it is a website where people tend to ask questions and if there is anything new, people can post it there. [14]*

Participants showed interest in future training and addressed future needs in OHN that they felt would make them more competent to function as confident practitioners. One participant stated that her motivation for enrolment into the OHN programme was because of workplace compliance and current legislation that one has to be trained in OHN to practise as an OHNP.

*I would love to do this course... they call it incident and investigation course. [13]*

*I would love to add primary health on my... [16]*

*I am forced to study occupational health because I've been working in occupational health, they told me that I had to do the course. [16]*

#### **4.7.3 Discussion of Theme 3: Readiness for professional and self-development in OHN**

In this theme, participants described their positive feelings towards CPD and their knowledge thereof. Participants described the value of professional organisations and the value they add to the profession. Subthemes included awareness of training needs and the prevention of stagnation among OHNPs.

Most participants had heard of CPD and felt it was important in the profession of nursing and more so in OHN where the nurses mainly function independently. In the expanded role of the OHNP, participants stated the importance of developing and maintaining expertise by means of continuous education (Naumanen - Tuomela, 2001).

One of the OHNP competencies stipulated by the SANC is quality of practice, whereby OHNPs should take part in CPD and take responsibility for their education. Knowledge and skills should be updated accordingly, and OHNPs should be actively involved in meetings such as those held monthly by SASOHN to gain up-to-date knowledge (SANC, 2013).



Some participants also agreed that CPD is needed for nurses who have worked for many years and become stagnant in the workplace. A study on nurse competence found that participants were responsible for their own educational development and needed to pursue lifelong learning (Lofmark, Smide, & Wikblad, 2006).

In the present study, participants acknowledged the importance of keeping up to date in the OHN profession. Participants indicated strategies to keep themselves updated, such as SASOHN membership, internet searching, and reading relevant journals and newspapers to name a few. OHNPs should stay up-to-date with nursing science and technology by reading journals and attending conferences and professional society meetings. Similar findings were in another article which reported that participants obtained information from journals, books, conferences, workshops and databases (Thiel & Ghosh, 2008).

Of the seven participants, only one was not a member of SASOHN. A study that determined work readiness of health professionals reported that participants considered professional development important and that nurses should actively participate (Walker, et al., 2012).

All participants felt that SASOHN was a valuable source of information and acted as a resource to many OHNPs who were not able to develop themselves all the time. All agreed that SASOHN was always up-to-date with new trends in OHN. One participant was very excited when speaking about the online chat that one can log in to and pose questions to OHNPs from all over who can then give their opinions and information. Many participants indicated the internet as a source of their information. Similarly, participants learned within a blended learning strategy which combined e-learning with traditional classroom learning (Orton et al., 2015) which paves the way for lifelong learning and keeping up to date with knowledge about their profession (Orton et al., 2015).

Participants showed interest in future training and addressing near-future OHN needs that they felt would make them more competent to function as confident practitioners. Similar findings stated that advanced practitioners understood the need for continuous developing of their own competence by means of continuous education and staying current. This can be done by national and international conferences, courses and workplace training, and participants stated that the knowledge acquired can be used in their independent role (Nieminen et al., 2011).

#### **4.8 Theme four: Perceived readiness for the leadership role in OH management**

The SANC requires OHNPs to fulfil the competency of management and leadership and serve as role models and mentors for others.

This theme emerged from the exploration of participants' feelings about leadership and management in OH. The subtheme emerged on discussion of participants' involvement in management roles such as disaster planning and policy reviewing and development theory, which form part of the OHNP management role.

Two sub-themes emerged in this theme, namely: Poor readiness for the leadership role in OH management; and Factor that contribute towards readiness for the leadership role in OH Management

##### **4.8.1 Subtheme 1: Poor readiness for the management role in OHN**

Most participants perceived involvement in various management activities in the workplace. Some participants felt that employers do not understand the OHNP role by asking for OHNPs' input or feedback at times, but mostly make decisions at the top level without input from OHNPs. Most participants are included in health and safety meetings and are health and safety committee members. Participants felt that the management module during the OHN

programme opened doors at the workplace for management involvement as they now had the skills and knowledge to take part in management-related tasks, and they indicated that they felt ready and confident to contribute at management level.

*... initially we were involved and took part in HR and management... when it becomes medically alarming or once it becomes a medical problem, they tend to involve us. [I4]*

*... I could see that if they don't understand my role as an OHN... [I1]*

*There is involvement in management ... [I3]*

Participants indicated involvement in management regarding OHN activities.

*...we are very involved with management, they value our input... I think that if you are used to sitting with management, then you start to learn what they want to know from you and what they don't want to know from you [I6]*

*... I am reasonably very involved in management and I'm now going into management. [I6]*

*I serve on management meetings, I do supervise staff as well. [I7]*

*I attend HR and SHE meetings and I give feedback... [I1]*

*I attend meetings and we discuss health and safety. [I3]*

Participants felt that they add valuable information on committees such as disaster planning, and that OHNPs should be involved as they are able to see things from a different point of view which managers and other members of the team might not be able to recognise from a health perspective.

Some participants felt ready to practice OHN at management level but they were not given the opportunity in their respective companies, and felt that they were not involved in OH-related management activities, such as policy documents, even though they felt competent to make contributions and confident to be part of the management team.

#### **4.8.2 Subtheme 2: Factors contributing to readiness for the management role in OHN**

Participants also referred to an assignment during their programme on policy making that was seen as valuable for work readiness.

*...it's mainly compiled by the doctor, like me as a sister I don't ever remember being asked any input when it comes to that. [I5]*

*...yes, I do feel that we need to be involved... we are the people on the ground, we have contact with employees that are, like, pregnant... [I5]*

*Yes, we did an assignment about policy making and it gives us a different view on policies... there are many policies that I feel that they must ask the occupational health clinic's input. [I6]*

#### **4.8.3 Discussion of Theme 4: Perceived readiness for leadership in OHN management**

The SANC (2013) states in the competencies within the management and leadership role domains that the OHNP has an important role in the development of policies and procedures.

Most participants stated minimal involvement in the management of workplace activities and said they were excluded from these activities. Participants also felt that employers do not understand the OHNP role. Some participants indicated that they were asked for their input at times but that decisions are mostly made at top level without OHNP input.

Most participants were included in health and safety meetings and were committee members. In a study on OHNPs' perceptions of their current and future roles, the author found that the future role of the OHNP is a managerial role, and that management activities such as OH and safety management and OHNPs have autonomy in these areas (Mellor & St John, 2007). The study also found that OHNPs need to come to an agreement with workplace employers and other management personnel to allow transition from the traditional role to the new future roles without conflict.

Participants described their participation in management activities such as disaster planning as minimal, and that only the end product is on rare occasions sent to them for review or for a contribution. A study on nurses' preparedness and perceived competence in managing disasters stated that nurses play an extremely important role in mitigating the effects of disasters (Baack & Alfred, 2013). Nurses should make use of their expanded role during disaster planning to include triage (Baack & Alfred, 2013). One participant in the present study added the triage system to the company disaster plan, which had not been included until the OHNP reviewed the plan. Some participants added value information to policies and procedures such as disaster planning and felt that OHNPs should be involved as they were able to see things from a different viewpoint to that of managers and other members of the team, who might not be able to see matters from a health perspective. It was recommended that nurses be included in activities relevant to disaster planning, drills and actual events; this would enhance competence in disaster situations (Baack & Alfred, 2013).

In another study, the authors reported that participants had a role that was more observational and non-participative, and did not have a real role other than that of observer (Illing, et al., 2013). In a study of work readiness by Walker, et al. (2013), there were participants who stated they had minimal input to policies and procedures at management level, and the authors stated that there was a difference of opinion and expectations on what management regarded as nurses' awareness of policies and procedures and some nurses' actual policies and procedural knowledge (Walker, et al., 2012).

Occupational Medical Practitioners are often involved in management and not the OHNP. Another factor may be that policies come from their head office where OHNP managers will draft, review and create policies and only some are asked for input to these policies. In line with the above, another study found that, at times, management or other personnel in the workplace feel that OHNPs interfere in their processes rather than fulfilling their roles as

OHNPs and their legislative concerns (Mellor & St John, 2007). Lastly, with a new role comes the function of budgeting, which can be daunting to someone with no previous experience. In a recent study by Huiskamp and Matingo (2014), 16.6% of their participants indicated that they were not involved in budget activities, and 12.5% rated this activity as very important.

#### **4.8.3.1 Factors contributing to readiness of leadership role on OHN management**

Participants also referred to an assignment during their programme on policy making which was seen as valuable toward work readiness. In a study on new nurses developing their skills, participants found that independence was demonstrated by the level of knowledge that was gained, with confidence and increased responsibility, by an education programme covering the phase between student and practitioner; when the programme was finished, the nurses could become independent practitioners (McKenna & Newton, 2007). As in the present study, participants felt they were equipped and should be involved at managerial level.

#### **4.9 Theme five: Readiness for a research role in OHN**

The SANC requires the OHN to conduct or contribute to OHN research to advance the profession and to identify needs and opportunities for research. Theme five emerged during the data analysis with two sub-themes, namely: participants' feelings towards research and the factors that contribute to this readiness.

Most participants perceived this as a challenging field and rather time-consuming, but most agreed that research is important for future healthcare. Some participants felt confident about implementing research findings in their workplace whilst others felt that the research proposal that was part of their training programme was the last contact they would ever make with research.

#### **4.9.1 Subtheme 1: Feelings towards research and its future importance**

Most participants did not perceive research as positive and felt it was overwhelming and time-consuming. Only one participant indicated that she ‘loved’ research – others felt it was more a burden than anything else. Participants indicated that they had not been exposed to research in the past, especially those who only completed a diploma in general nursing with no post-diploma qualifications. Participants expressed feelings of the unknown which made them anxious and not knowing where to start or what was expected.

*... I absolutely loved it... I loved research... I didn't realise how much it helps you grow. [I2]*

*It was a nightmare... research or whatever or proposal whatever is the only thing that was a challenge; there was the terminology... [I3]*

*... big new subject... big challenge. [I4]*

*...it was, how can I say...very daunting actually... it takes a lot of time, you need to be patient, you need to be able to look for information... you also need to understand the different techniques... you get, like, overwhelmed, you know you not sure where to start and where to end... [I7]*

*... wow, interesting... I felt like it was like... it's something new, there's never been contact in our occupation especially us with diploma nursing content... I didn't know what was expected... [I4]*

Participants did, however, feel that research was part of the future role of the OHNP and that it was important to conduct research as change occurs all the time. Some participants felt no need to practise research in the future, while some indicated that research might be part of their future studies. The SANC requires OHNPs to apply the epidemiological process to the surveillance of occupational diseases and injuries.

*Research is very important... actually the meaning is to improve quality [I3]*

*I was thinking of doing a small study in my workplace... there is one department where the employees have skin problems on their hands... so I am not sure if it is the*

*soap or something from home... I think I might look at some research and come up with proof of what is really happening. [11]*

#### **4.9.2 Subtheme 2: Factors contributing to readiness to participate in research role**

During the OHN programme, the research module exposes OHN students to research and they had to develop a group proposal. This contributed to their readiness as the group had many ideas which were better than the ideas of one person. The research model was divided into the research process with hands-on practice of each unit in the process.

*Oh, that was hectic, at first I felt like I don't need this, I feel like it's a branch that shouldn't be there in occupational health... but as time went by, I realised that research is something that we do every day... it opens up your mind at the end of the day. [15]*

*I wasn't always very positive because it is a field of nursing that you are just not interested in, it's complicated and there are many terms that you need to understand... the start was very confusing, we did not know what was going on but it had nothing to do with the course or anything, it was just the research... I think the general nurse is not interested in research... I think it's the unknown. [16]*

*...it's a lesson to me... because I might do Master's... [13]*

*We have so many things that we do proposals for at work... and if it wasn't for the research module, you would not know... [15]*

#### **4.9.3 Discussion of poor readiness for research role in OHN**

Most participants agreed that research was important for the future in healthcare. Some participants felt confident to implement research findings in their workplace while others felt



that the research proposal during their training programme was the last contact they would ever have with research. Two sub themes emerged from the main theme, namely the feelings towards research and its future importance. The SANC stipulates in the competencies for OHNPs that the practitioner should conduct research or participate in studies that can contribute to knowledge in occupational health nursing and the health and safety environment, and have the desire to advance in the profession (SANC, 2013). The OHNP should pursue research in OHN. OHNPs should review research and implement the findings in their clinical environment to improve current practice; and research findings should be used to review and develop policies and procedures (SANC, 2013).

Most participants did not perceive research as positive and felt it was overwhelming and time-consuming. This view was similar to that in a study where nurses perceived research as a worrying concept and experienced bafflement (Bohman, Ericsson, & Borglin, 2013). Only one participant indicated that she loved research; others felt it was more a burden than anything else and, in another study, nurses had similar feelings, stating that the shortage of time during work hours meant that they would have to search for information during their off-time (Bohman et al., 2013).

There were participants who were positive about research but unsure of what is expected during the research process, and the uncertainty made them feel negative towards research; this can be seen as a similar feeling expressed in an article that found nurses have a positive attitude towards research but their knowledge and confidence about research was challenging (Thiel & Ghosh, 2008).

Participants indicated that they were not exposed to research in the past, especially those who only completed a diploma in general nursing with no qualifications after their initial diploma. An article written on OHN in SA reports that, in previous years, SA nurses were trained to

take a subordinate role in the medical field and did not feel that their opinions were of any value; and, with lack of funds, OH research has been in the background for many years (Grainger & Michell, 2005).

Participants expressed feelings of the unknown which made them anxious and not knowing where to start or what was expected. In a study on nurses' perception of research, similar findings emerged that nurses reported they did not feel at home with research, and the basic methods of research and their inability to search for useful research was frustrating to participants (Bohman et al., 2013). In SA, OH is under-researched compared with other countries, and more research needs to be encouraged, such as medicine-related research carried out in various universities, and OHNPs should first and foremost be encouraged to conduct research (Grainger & Michell, 2005). Previously, nurses' roles did not include research which, together with funding issues, means that OH has not been in the forefront of research, and a non-research mind set subsequently developed (Grainger & Michell, 2005).

Other participants in the present study expressed that research is time consuming and does not have a place in an already full educational programme. In a study on the perceptions of OHNPs and their roles, Huiskamp and Matingo (2014) found that the OHNP role in applying research methodology was not perceived as of high importance.

Participants did, however, feel that research was part of the future role of the OHNP and that it was important to conduct research as change is ongoing. This point was mentioned in a study, that having the skills to combine research with occupational health programmes would enable OHNPs to document their results clearly (Mellor & St John, 2007), which showed that OHNPs believe in research directed towards health promotion strategies and their implementation. In the same study, OHNPs supported the need for growth and relevant topics that should be researched in OHN practice (Mellor & St John, 2007).

In another study, participants agreed that a great deal has changed in nursing education, and some nurses from an older generation cannot see the significance of research, and that more education needs to take place regarding nursing research (Bohman et al., 2013). In the same study, nurses stated that nurses should remove the negative image regarding nursing research, and that nurses should involve their peers in practice settings (Bohman et al., 2013).

In a study of perceptions of OHNPs and their expanded roles, some participants felt no need to practice research in the future as they felt that research activities were of low importance (Huiskamp & Matingo, 2014). Some participants indicated that research might be part of their future studies, and found it interesting, which was similar to a study on the readiness of nurses for evidence-based practice which found that interest had evolved and that the implementation of findings would close the gap between conducting research and applying findings in practical settings; but nurses still perceived research as daunting (Thiel & Ghosh, 2008).



#### **4.10 Summary of chapter**

In the current chapter, the researcher described the research findings that emerged from the data analysis process. Five themes and 11 subthemes were identified. The main themes included perceived confidence to practice OHN, readiness for the unique field of OHN, readiness for professional and self-development, readiness for the leadership role in OH management, and readiness for a research role in OHN. Data saturation was achieved with the 7th participant. The 7 OHN students who participated in the study were all employed in the OHN field. Their ages ranged from the early 30s to the early 50s.

Themes were discussed and the researcher found that most participants felt confident to practice OHN and indicated competence when applying their skills and insight to the field.

All participants felt that health promotion and education were an important role in their work

profile and felt competent in achieving this in their workplace. By the seventh interview data saturation was reached.

The researcher established from participants that OH is a unique field of nursing, and participant stated their need to be familiar with relevant legislation. Participants felt confident in knowing the needs of employers and employees and finding the balance between the two.

All participants mentioned the importance of professional development and indicated ways in which they would develop themselves professionally, indicating confidence to apply this to their own situation.

Management was found to play an important role in the daily activities of OHNPs. Some participants felt they were not fully involved in management but stated that they felt competent to engage in management activities.

The perceptions of research among participants was mixed; some were fond of research and others not. All participants saw the importance of research for nursing's future. Participants all indicated that they felt competent to conduct a small-scale research project at their workplace, or using and applying the findings of a research study.

## **CHAPTER FIVE**

### **CONCLUSION**

#### **5.1 Introduction**

This chapter discusses the key findings, recommendations and the limitations based on the findings presented in the previous chapter.

The overall aim of the study was to explore the perceived readiness of OHNPs to practice OHN according to the competencies set out by the SANC and to identify areas in which the OHN did not feel ready for practice in the OHN field.

#### **5.2 Key findings**

The findings revealed that most OHNPs are confident to practice OHN upon graduation from the OHN programme according to the SANC framework for OHN competencies.

The OHNPs perceived themselves to be competent in providing quality occupational health services in the workplace and stated that they are felt competent in conducting physical assessments and medical surveillance surrounding OH and felt confident in knowing when to refer an employee when making a nursing diagnosis. Participants felt competent in conducting risk assessments and collaboration with the OH team members.

Health education and health promotion were one of the areas that participants perceived themselves to be competent in and ready to practice. In line with the second domain where SANC stipulates OHN competencies of clinical practice, care and provision management amongst others were health promotion, assessments (health and workplace), diagnosis of potential work related problems and care planning. The OHNPs perceived themselves competent in implementing and evaluation OHN services.

Participants perceived themselves as competent in seeking further continues professional development and methods in doing so which is in line with the third domain, quality of practice.

Participants were exposed to policy and procedure making during the OHN programme and perceived themselves competent in professional, ethical and legal practice and felt competent in working in line with the OHS Act and relevant legislation.

An important finding of the study, namely that the OHP was unable to or incompetent in performing a physical assessment prior to the OH programme is a huge concern because it is a required competence for a registered nurse.

The OHNPs perceived themselves to be less confident in taking on the management role in OHN and stated difficulties in the workplace as management in companies don't seem to understand the role of the OHNP. Participants perceived themselves as having low readiness in the area of nursing research and most felt they will not be involved in any research in the near future but acknowledged the importance of research for nursing future.

Factors that contributed to readiness of OHNP were skilled and experience educators and facilitators who served as mentors in the occupational health field. Participants also stated the additional short courses during their time of study made a valuable contribution to their readiness to practice OHN. Some participants did add that their pervious knowledge and experience of the OH field contributed to their readiness to practice as the OHN programme enriched them further while having an existing baseline of knowledge. Participants added assessment strategies such a project they had to complete as part of the programme which was concerned with a health education and promotion awareness day for workers added value to the understanding, planning and facilitating wellness days. Participants had various areas to which they were exposed to during the practical experience in the OHN programme which

they perceived did add value to their competence having had this exposure due to the fact that the OHNP can deliver a OH service in various industries and they are different from one another. Participants stated that belonging to a professional organisation contribute their perceived competence to practice as this organisation are a value source of information.

### **5.3 Recommendations**

The researcher makes the following recommendations that can be considered by future programme participants. Low readiness was identified in physical examinations, management, leadership roles and nursing research.

More time could be spent on the area of physical examinations to revise and reinforce the skill of physical assessments.

Effective communication is vital for involvement in managerial tasks. This is a powerful tool and the OHNP should take ownership to become involved in management. This is not a skill that can happen overnight but comes with practice and experience. The OHNP should engage in basic communication skills, e.g. speaking clearly and listening attentively. Practical learning experiences during practical rotations can be an opportunity for the OHN nursing student to attend management meetings including good supervision and role models from mentors from which communication skills can be observed. For future research possible areas for research could include the factors for low readiness taking on the leadership and managerial role in OHN and practical guidelines for improving this area.

Active higher degree promotion among OHNPs will enable them to develop their knowledge for extending their scope of practice, which includes research. OHNPs should be encouraged to carry out research and present their findings; this is the only way to publicise OHN in South Africa and thus attract funding, both national and internationally.

Confidence is built by self-development; OHNPs should therefore push themselves to regularly do something new that they find challenging, e.g. attend the management meeting and being part of a research team, drawing up a list of goals to achieve involving challenges and unknown topics, and making a schedule to motivate attaining these goals.

#### **5.4 Limitations**

The research was conducted at one institution only and the sample was purposefully selected. The findings can therefore not be generalised to include other universities in South Africa. The study did not include all other institutions that offer a programme in OHN.

#### **5.5 Summary chapter**

The present chapter discussed the study findings and the main focus of the research, which was on OH nurses and their readiness to practice OHN according to the competencies set out by the SANC. The objective of the study was to explore the perceived readiness of OHN students to practice OHN according to SANC competencies, and to explore in which OH practice areas OHN students experience low readiness. During the in-depth interviews, the researcher used one open-ended question and gathered more information from the participants by making use of probing questions. Data were analysed using the thematic content analysis method, by the researcher and the researcher's supervisor. Literature used to validate the findings of the research study was obtained from databases such as Google Scholar, PubMed, Ebscohost, CINAHL etc. Both South African and international publications were used during the study.

The researcher concluded, based on the findings that OHNPs generally perceived themselves as confident to practise as independent competent practitioners. Participants perceived themselves as ready to practice within the five domains of competencies stipulated by the



SANC for OHNPs, namely professional, ethical and legal practice; clinical practice, care provision and management; quality of practice; management and leadership; and research.

Areas of low readiness were management and leadership roles and conducting research.

**Final Word Count from Chapter one until end of Chapter five 23678.**



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## **INFORMATION SHEET**

**Project Title: The perceived readiness of occupational health nursing students' to practice occupational health nursing.**

### **What is this study about?**

This is a research project being conducted by Ilze Steenkamp enrolled at the University of the Western Cape. We are inviting you to participate in this research project because you are enrolled as an occupational health nursing student. The purpose of this research is to determine the readiness of the 2015 post graduate occupational health nursing students to practice occupational health nursing. The data obtained from this study might be able to assist educators to enhance the learning experience of future students.

### **What will I be asked to do if I agree to participate?**

You will be asked to complete a consent form after the researcher has informed you about the study and answered any questions that might arise. You will then be asked to take part in a telephonic interview at a time most convenient to you. The interview will take between 45 – 60 minutes to complete. The interview will start with one broad question and will be guided with probes.

### **Would my participation in this study be kept confidential?**

The researcher undertakes to protect your identity and the nature of your contribution. To ensure your anonymity, the *interviews are anonymous and will not contain information that may personally identify you*". (1) *Your name will not be included on the surveys and other collected data;* (2) *a code will be placed on the interview and other collected data;* (3) *through the use of an identification key, the researcher will be able to link your interview to your identity;* and (4) *only the researcher will have access to the identification key.*

To ensure your confidentiality *the data will be kept in a locked filing cabinet and storage area, using identification codes only on data forms, and using password-protected computer files.*

If the researcher writes a report or article about this research project, your identity will be protected.

### **What are the risks of this research?**

All human interactions and talking about self or others carry some amount of risks. The researcher will nevertheless minimise such risks and act promptly to assist you if you experience any discomfort, psychological or otherwise during the process of your participation in this study.

Where necessary, an appropriate referral will be made to a suitable professional for further assistance or intervention.

**What are the benefits of this research?**

This research is not designed to help you personally, but the results may help the investigator to learn more about ways to contribute to the enhancement of the learning experience of future occupational health nursing students. We hope that, in the future, other people might benefit from this study through improved understanding of difficulties pertaining to readiness for practice.

**Do I have to be in this research and may I stop participating at any time?**

Your participation in this research is completely voluntary. You may choose not to take part in the survey. If you decide to participate in this research, you may stop participating at any time. If you decide not to participate in this research or if you stop participating at any time, you will not be penalized or lose any benefits to which you otherwise qualify. Participation in the research is not a course requirement

**What if I have questions?**

This research is being conducted by Ilze Steenkamp in the Nursing Department at the University of the Western Cape. If you have any questions about the research study itself, please contact Ilze Steenkamp at: 083 788 0529 or [2807807@myuwc.ac.za](mailto:2807807@myuwc.ac.za). Should you have any questions regarding this study and your rights as a research participant or if you wish to report any problems you have experienced related to the study, please contact:

Head of Department:

Dean of the Faculty of Community and Health Sciences:

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Private Bag X17

Bellville 7535

[chs-deansoffice@uwc.ac.za](mailto:chs-deansoffice@uwc.ac.za)

This research has been approved by the University of the Western Cape's Senate Research Committee and Ethics Committee.



**APPENDIX  
UNIVERSITY OF THE WESTERN CAPE  
INFORMATION SHEET TEMPLATE  
ADDITIONAL GUIDANCE FOR SPECIFIC ISSUES**

**Informed Consent**

Informed consent is a process, not just a form. Information must be presented to enable persons to voluntarily decide whether or not to participate as a research subject. Therefore, informed consent language and its documentation must be written in language that is understandable to the people being asked to participate.

**Research Involving Minors**

For research involving individuals under the age of 18, include a Parental Permission Form to ask parents for consent to the participation of their child and an Assent Form to ask the minors if they agree to participate in the research, depending on whether the children are capable of assenting. The Parental Permission form should contain all of the elements of the sample consent form. However, the parental permission form should be written in language appropriate for parents granting permission for their child's involvement rather than as though they themselves will be participating (e.g. we are inviting your child to participate the risks to your child's participation include). When determining whether the children are capable of assenting, take into account the ages, maturity, and psychological state of the children involved. Assent forms should be written in age-appropriate language.

**Research Involving Individuals with Impaired Decision-making Capacity**

Using the Informed Consent Form Template, prepare a consent form to ask the research subject's authorized representative for consent to the participation of the research subject. Prepare an assent form to ask the research subjects if they agree to participate in the research, depending on whether the subjects are capable of assenting. When determining whether the subjects are capable of assenting, take into account the decision-making capacity of the research participants.

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# UNIVERSITY OF THE WESTERN CAPE

Appendix B

Private Bag X 17, Bellville 7535, South Africa

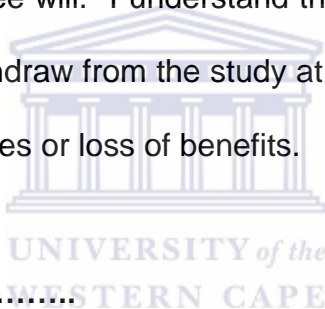
*Tel: 27 21-959 3923*

E-mail: 2807807@myuwc.ac.za

## CONSENT FORM

**Title of Research Project:**            **The perceived readiness of occupational health nursing students' to practice occupational health nursing.**

The study has been described to me in language that I understand. My questions about the study have been answered. I understand what my participation will involve and I agree to participate of my own choice and free will. I understand that my identity will not be disclosed to anyone. I understand that I may withdraw from the study at any time without giving a reason and without fear of negative consequences or loss of benefits.



**Participant's name**.....

**Participant's signature**.....

**Date**.....



# UNIVERSITY OF THE WESTERN CAPE

Appendix C

Private Bag X 17, Bellville 7535, South Africa

*Tel: 083 788 05 29*

**E-mail: 2807807@myuwc.ac.za**

Date: 29 January 2016

Time: 15:23

Place: Mugg & Bean (Participant choose the setting)

Female mid 30's with 9 years OHN experience

Hello, my name is Ilze Steenkamp, I am contacting you to conduct our telephonic interview that you agreed upon via email response.

During this interview I would like to discuss the following topics: 1. Professional, ethical & legal practice 2. Clinical practice – care provision & management 3. Quality of practice 4. Management and leadership 5. Research. With these topics in mind...

<b>Broad Question</b>	<b>Field Notes</b>	<b>Reflective Notes</b>
“You have recently finished the B Tech Nursing in Occupational Health and I am interested in understanding how you feel about your competence to work as an independent Occupational Health Nurse Practitioner?”	<i>Confident Experienced Course (minimal practical)</i>	<i>(eye contact good and appears confident) Previous experience – advantage? Difficult for myself,</i>

	<i>Unsupervised hours</i> <i>Tutors in the field</i>	<i>minimal experience when doing OHN... should general nurses apply without experience?</i>
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Can you describe how competent you feel in terms of the following OHN competencies?

<b>Main area</b>	<b>Question</b>	<b>Clarifying Questions</b>	<b>Field Notes</b>	<b>Reflective Notes</b>
Professional, ethical and legal practice	“Tell me about your ability to deal with an ethical dilemma in OH. Do you feel you will be able to deal with an unethical practice you might witness – tell me more about that...”	Can you expand a little on this?  Can you tell me anything else?  Can you give some examples?	<i>Comfortable</i> <i>Comes with experience</i> <i>PPE</i> <i>Protect</i> <i>Training</i> <i>Basic health needs</i> <i>Follow OH principles</i>	<i>Good understanding - would I do the same in the current situation or not....</i>  <i>Not always easy to follow OH principles (seemed to have been in difficult situations when naming example)</i>
Clinical practice – care provision and management	“Can you tell me your feelings about developing and leading a health promotion programme and how do you feel	Can you expand a little on this?  Can you tell me anything else?	<i>Onsite chronic</i> <i>Assignment – on health promotion</i>  <i>Physical assessment short course (previous experience assisted)</i>	<i>Should OHN include more assignments or less... Seems like assignment makes her more confident</i>  <i>Over confident saying that assessment can be done with closed</i>

	about health assessments and medical surveillance with regards to individual employee risk profiles?"	Can you give some examples?	<i>Short course BLS</i> <i>Insightful PHC</i> <i>Yearly health risk assessment</i> <i>Walk through with Dr Confident</i> <i>Documents established – add on new things</i> <i>Legal responsibility</i> <i>Easy to develop OREP</i>	<i>eye... do we always think we know everything?</i> <i>My physical assessment block period was challenging.</i>
Quality of practice	“Can you tell me your feelings about conducting an audit and creating an action plan on any findings? Can you tell me more your feelings about continuous professional development?”	Can you expand a little on this? Can you tell me anything else? Can you give some examples?	<i>Insight – what so look for SASOHN updates and internet</i> <i>Stagnation</i> <i>Challenge</i> <i>Independent in OHN</i> <i>Audit new duty of mine – excited</i>	<i>(rolling eyes) Walk through was challenging for myself – not always sure what to look for. Participant very confident. Should I have been more confident after my studies...</i>
Management and	“What are you	Can you expand a little on	<i>Give relevant info to</i>	<i>(Smiling) Management value her</i>

leadership	feelings with regards to your role in management and being involved in disaster planning, policies, management meetings and committees?"	<p>this?</p> <p>Can you tell me anything else?</p> <p>Can you give some examples?</p>	<p><i>management</i></p> <p><i>Policy assignment look at OH differently</i></p> <p><i>Sources in community, clinic (HIV testing and pap smears)</i></p>	<p><i>input, very fortunate as not all OHN experience this. Learn what they want to know and leave out the rest... does this strategy work?</i></p> <p><i>Should this be relevant to other settings where OHN have difficulties with management... or is it only her experience?</i></p>
Research	"How do you feel about research? Is this something you would feel you would like to partake in?"	<p>Can you expand a little on this?</p> <p>Can you tell me anything else?</p> <p>Can you give some examples?</p>	<p><i>Difficult terms</i></p> <p><i>Not always interesting</i></p> <p><i>Unknown</i></p> <p><i>Boring</i></p> <p><i>Mentality about research</i></p>	<p><i>(Sighing) Not positive experience to her... I share that as some terms are difficult and distinguishing differences (laughing)</i></p>

**Is there anything else you would like to tell me or add to this interview?**

**Thank you for your time.**

*Tutors more involved in practical*

*Group work challenges*

*Physical assessment more effective utilization*

*Challenges of adult learning, part time with work and family*

*A lot of assignments*



UNIVERSITY of the  
WESTERN CAPE

## DEPARTMENT OF RESEARCH DEVELOPMENT

10 December 2015

### To Whom It May Concern

I hereby certify that the Senate Research Committee of the University of the Western Cape approved the methodology and ethics of the following research project by:  
Ms I Steenkamp (School of Nursing)

Research Project: The perceived readiness of occupational health students' to practice occupational health nursing.

Registration no: 15/7/247

Any amendments, extension or other modifications to the protocol must be submitted to the Ethics Committee for approval.

The Committee must be informed of any serious adverse event and/or termination of the study.

*Ms Patricia Josias*  
*Research Ethics Committee Officer*  
*University of the Western Cape*



Department of Nursing  
PO Box 1334  
Durban  
4000  
14 September 2015

Ms I Steenkamp (2807807)  
University of Western Cape  
Masters in Nursing Education

**PERMISSION TO CONDUCT RESEARCH IN THE DEPARTMENT OF NURSING**

Your correspondence dated 31 August 2015 regarding the request for permission to conduct a research study in the Department of Nursing refers. I am pleased to inform you that you are granted permission to conduct research in the Department of Nursing (Undergraduate Programme).

The Department of Nursing at the Durban University of Technology wishes you the best of luck with your studies.



.....  
Prof MN Sibiya (HoD: Nursing)



601 Deauville  
20 Ednam Road  
Rondebosch  
7700  
19 October 2016

Ms Ilze Steenkamp  
Faculty of Community and Health Sciences  
University of the Western Cape

Dear Ms Steenkamp

Mini-thesis entitled: Perceived readiness of occupational health nursing students to practise occupational health nursing according to South African Nursing Council competencies

I declare that I have read and edited the above document from the viewpoint of grammar, syntax, idiom and punctuation according to the norms of English in the style followed in South Africa, and the style and format generally used by academic and scientific publications.

I have worked for many years, and continue to work, as a sub-editor and copy editor for a number of professional South African academic and health sciences journals.

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WESTERN CAPE

Yours sincerely



Robert Matzdorff

**Pro Edit**

- Professional editing of academic articles, papers and theses; books, manuals and manuscripts; and articles for publication. Health sciences a speciality.
- Copy writing; technical writing; rewriting
- Reviewing of assignments and essays from a language/grammatical viewpoint
- Vetting of advertising and publicity material for ambiguities, grammatical and spelling errors, and other slips

**Robert Matzdorff**

email: robert14@cybersmart.co.za; mobile: 084 582 0460; landline: 021 686 5576

Theme	Subcode	Quotes
Perceived confidence to practice OHN	<ul style="list-style-type: none"> <li>• Quality of care</li> <li>• Adequate occupational health nursing care</li> <li>• Evidence based practice</li> <li>• Competent to practice OHN</li> <li>• Professional enhancement</li> <li>• Practice into perspective</li> <li>• Previous experience</li> <li>• Health education and promotion</li> <li>• Teamwork</li> <li>• Independent practice</li> <li>• Limited knowledge</li> <li>• Insight and skills</li> <li>• Lack experience</li> <li>• Experienced mentors</li> <li>• Good preparation</li> <li>• OH audits</li> </ul>	<p>001 “... I can interact research I can interact practice, I can interact evidence based... those three will help me in in terms of making sure I give my patients quality care”</p> <p>002 “... looking at the person more holistically...”</p> <p>002 “I definitely feel more competent now that I’ve done the course, I understand a lot more than I did when I was actually working... professionally it was definitely an eye opener”</p> <p>002 “...previously I didn’t look at occupational health from correct occupational health stand point... I did what I had to but didn’t understand why I was doing it”</p> <p>003 “At the moment I can say I feel I am not yet ready to work independently... maybe I still need some guidance here and there... maybe about another 12 months”</p> <p>004 “Okay as far as I am concerned... I feel quite confident enough... we work as independent practitioner”</p> <p>004 “... our judgement and on our assessment it actually helps us grow and be confident enough”</p> <p>004 “Since I have done the course initially – at first I didn’t know where my capability... I think the course has empowered me a lot to understand... ”</p> <p>005 “...I don’t have much experience when it comes to occupational health nursing... I was working luckily with a senior sister in the clinic... I didn’t have much of the experience but we grow everyday”</p> <p>005 “...was coming straight from the hospital... the environment in the hospital is so different to this one... there are no sick people... you are nursing the well patients”</p>

	<p>006 <i>"I feel confident because I am experienced if I didn't have the experience I would not have felt to confident"</i></p> <p>007 <i>"I think because I've been in occupational health before I did the course it actually ja it actually it just like you know the knowledge that I got whilst doing the course, it just helped things fit in better"</i></p> <p>001 <i>"... we do health education on let's say a dedicated area... health education in terms of hazards... we go to each department"</i></p> <p>002 <i>"... I'm and educator anyway you know by nature... during the course definitely refined my ability to do that"</i></p> <p>002 <i>"...intense health day ... big focus in second year of study it was quite a big module... I feel very confident to go ahead..."</i></p> <p>002 <i>"... I was pretty competent and then in our University here we has the most phenomenal lecturer... who came in for three days and she literally did head to toe examinations what we're doing, what we were doing it for, what we were looking for... signs of lead poisoning and you know signs... there was a practical portion to it that was examined and you had to pass it"</i></p> <p>OREP <i>"... on a basic level yes and I probably could but I would definitely want somebody to just double check me... So I think that takes a bit of after experience"</i></p> <p>002 <i>"...fortunately we have got can occupational health doctor twice a week... anyone I am not comfortable with..."</i></p> <p>002 <i>"... OMP booked for one hour... twice a week... she is a wealth of knowledge"</i></p> <p>002 <i>"... I would use OMP first and foremost and then secondly... one of my lectures who got her doctorate last year... and there is another one they would next two I would go to... they are amazing researchers and they a lot about everything"</i></p> <p>002 <i>"... I would be stressed beyond belief... I am not knowledgeable enough to criticize"</i></p>
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	<p><i>anybody...”</i></p> <p>003 <i>“Health promotion... I feel that the occupational health nurses should be allowed to play like major role in the planning phase but they only involve us in the implementation phase”</i></p> <p>003 <i>“... challenge because where I work... only the doctor performs physical assessments... I only have the theory of the health assessment examination but in practice... I forget some things... but did get in depth information on health assessments during the course”</i></p> <p>003 <i>“...where I work there is little primary health care...I am confident I do have the skills to actually try and arrive at the diagnosis though it might not be exact”</i></p> <p>003 <i>When I comes to audits I want to be honest I am still not 100%”</i></p> <p>004 <i>“...serves as a challenge... most occupational health nurses are not employed by the company... we sort of like contracted... we have the role and responsibility we still find challenges in terms of getting the employees to attend health promotions”</i></p> <p>004 <i>“...conducting health assessment I feel quite confident... I mean as long as you understand the rationale of what you are doing”</i></p> <p>004 <i>“Okay in audits I think I’m not confident”</i></p> <p>005 <i>“Wow the health promotion program it is an exciting thing to do because you feel like you are helping, you are making a difference in people’s lives... it is not easy because the employer wants the employee to be at work”</i></p> <p>005 <i>“I feel that I am skilled in physical assessments... “</i></p> <p>006 <i>“I my work I have run many health promotion programs but due to the course that that was one of our big assignments...I think that was a food thing to have as an assignment”</i></p> <p>006 <i>“... we had very good short courses during the course... and then the physical assessment course was insightful... I learnt a lot of things from small physical signs and</i></p>
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		<p><i>symptoms that one would not necessarily know about if no one explains to you”</i></p> <p>006 “... reasonably confident in OREP but I have to add in the course we did not really spend time on that... they accepted that we can do it”</p> <p>006 “...it would be challenging to draw up a audit document... with the new job that will be one of my new duties... so I’m actually very excited to go and do an audit”</p> <p>007 “... working as a team... we’ve got sixteen occupational health nurses...you always have a second or third person that you are working with”</p> <p>007 “...something we do every single day so I don’t really have any problems with that... if we do, we have a doctor that is available telephonically...”</p> <p>007 “okay you know at the moment we’re busy working with an audit tool... we actually going out in March to do the clinic audit... not so much confident but I think when we go out here and we get to do it and you understand what is like expected... I think then things will start failing in place”</p>
<p>Readiness for the unique field of OHN</p>	<ul style="list-style-type: none"> <li>• Work within legislation</li> <li>• OH unique field with legislation</li> <li>• Advocate for employee wellbeing</li> <li>• Insight to unfair practice</li> </ul>	<p>001 “... abide by the South African Nursing Council.... Abide by the Occupational Health and Safety Act.... Basic conditions of employment”</p> <p>001 “very important for me... know about all legal aspects....unique or sector that I’m working...”</p> <p>002 “... to provide a safe environment...provide correct PPE...”</p> <p>002 “I don’t think that was challenged in anyway during the course... length of experience that I’ve got I think I had enough exposure to ethical issues”</p> <p>002 “...advocate for both the employer and employee... find a balance... before you kind of just focused on the employee... not really concerned with the employer...”</p> <p>003 “I wouldn’t feel comfortable dealing with an ethical dilemma”</p> <p>003 “... employer is responsible to ensure that the workplace is safe for the employees to perform their duties that is reasonably practical”</p>

		<p>004 “... understand the mitigating part of it... confidentiality and ethical dilemmas that we encounter are from day to day basis”</p> <p>006 “... think if you follow the right principles to make sure you protect your client then one can solve it...”</p>
<p>Readiness for professional and self-development</p>	<ul style="list-style-type: none"> <li>• CPD</li> <li>• SASOHN resource</li> <li>• Stagnation</li> <li>• Training needs</li> </ul>	<p>001 “I think it’s good in terms for us who has uh... qualified long time ago... I have just done basic life support and now I could see that the basic life support that I knew 5 years ago is now different”</p> <p>002 “I think it has to happen... older nurses you know kind of get into a rut and then you don’t develop yourself”</p> <p>002 “I would love to add primary health on my...”</p> <p>002 “SASOHN... they are an amazing network... there are women there who have worked in occupational health for many, many years and the network so amazing...”</p> <p style="text-align: center;">   UNIVERSITY of the  WESTERN CAPE </p> <p>003 “Unfortunately I haven’t heard of CPD”</p> <p>003 “I think the most important thing to keep me updated it to actually stay on the internet... lot of information coming out there I mean new latest information”</p> <p>003 “I have just applied to SASOHN... attend their meetings... very educational”</p> <p>003 “I would love to do this course... they call it incident and investigation course”</p> <p>004 “...there are always changes that come, that you encounter or development... SASOHN always updated with the latest trends and also you can log into occupational health nurses website... it is a website where people tend so ask questions and if there is anything new people can post in there”</p> <p>006 “...yes I have heard about it I think it’s a good idea because a lot of your occupational</p>



		<p><i>health nurses stagnate in the same clinic for 10 years... it will be a bit of effort but the doctors have been doing it for years so why not us..”</i></p> <p>006 <i>“I am forced to study occupational health because I’ve been working in occupational health they told me that I had to do the course”</i></p> <p>007 <i>“Um... I did not get a lot of information on it but I have heard very briefly yes... to keep updated the current, the new information to comes you know”</i></p> <p>007 <i>“I am part of training I’m looking for new information all the time to share with my team... keep myself updated because I need to update them”</i></p>
<p>Readiness for a leadership role in occupational health management</p>	<ul style="list-style-type: none"> <li>• Management</li> <li>• Policy making</li> <li>• OHNP valuable source</li> </ul>	<p>001 <i>“... I could see that if they don’t understand my role... ”</i></p> <p>001 <i>“... I’m not contributing in any way because they all come from head office”</i></p> <p>003 <i>“Its actually a combination of doctor’s opinion, my managers’ opinion and then we also have input”</i></p> <p>003 <i>“There is very little involvement in management to be honest... my manager represent us at meetings and give feedback”</i></p> <p>003 <i>“I am not involved in disaster planning as such... the coordinator recently sent us the latest disaster plan to actually add something or have input... of course yes there was one thing... the system of triage I suggested to be included”</i></p> <p>003 <i>“Policies... they all come from our head office... but the standard operation are written by my manager and then she will just ask my input... if she is leaving anything out”</i></p> <p>004 <i>“...time it’s the time thing... don’t get good attendance because some of them they don’t have the need for employees to be empowered... some they don’t worry about the employee’s health”</i></p> <p>004 <i>“... initially we were involved and took part in HR and management... but this year things have changed... they are controlling things on their level... but once it becomes</i></p>

		<p><i>medically alarming or well once it becomes medically problem they tend to involve us”</i></p> <p>004 “... they don’t involve occupational health in policy making... somehow somewhat we are not so much involved...I feel... because I think for us being on site is actually a value to the company”</p> <p>005 “...its mainly complied by the doctor, like me as a sister I don’t ever remember being asked any input when it comes to that”</p> <p>005 “...yes I do feel that we need to be involved... we are the people on the ground, we have contact with employees that are like pregnant...”</p> <p>006 “...we are very involved with management they value our input... I think that if you are used to sitting with management then you start to learn what they want to know from you and what they don’t want to know from you”</p> <p>006 “... I am reasonably very involved in management and I’m now going into management”</p> <p>006 “Yes we did and assignment about policy making and it gives us a different view on policies... there are many policies that I feel that they must ask the occupational health clinic’s input”</p>
<p>Perceived readiness for a research role in OHN and future implications</p>	<ul style="list-style-type: none"> <li>● Feelings towards research</li> <li>● Time consuming</li> <li>● New terminology</li> <li>● Research importance</li> </ul>	<p>002 “... I absolutely loved it... I loved research... I didn’t realise how much it helps you grow”</p> <p>003 “It was a nightmare... research or whatever or proposal whatever is the only thing that was a challenge there was the terminology”</p> <p>003 “... research is very important... but the challenges that one has when we were doing our proposal really at the moment... I am not actually keen to like do or conduct any research”</p> <p>004 “wow interesting... I felt like it was like... it’s something new there’s never been contact</p>



		<p><i>in our occupation especially us with diploma nursing content... I didn't know what was expected"</i></p> <p>004 <i>"... big new subject... big challenge"</i></p> <p>005 <i>"Oh that was hectic at first I felt like I don't need this, I feel like it's a branch that shouldn't be there in occupational health... but as time went by I realised that research is something that we do every day... it opens up your mind at the end of the day"</i></p> <p>006 <i>"I wasn't always very positive because it is a field of a nurse that you are just not interested in, its complicated and there are many terms that you need to understand... the start was very confusing we did not know what was going on but it had nothing to do with the course or anything, it was just the research... I think the general nurse is not interested in research... I think it's the unknown"</i></p> <p>007 <i>"...it was how can I say...very daunting actually... it take a lot of time you need to be patient you need to be able to look for information... you also need to understand the different techniques... you get like overwhelmed you know you not sure where to start and where to end..."</i></p>
7.Challenges	<p>Group work</p> <p>Experience of students</p> <p>Time restraints</p> <p>Support</p>	<p>002 <i>"I can work in groups... but it gets very frustrating especially with such a big project... group members who either didn't make meetings..."</i></p> <p>002 <i>"... if they are young and don't have nursing experience... it's almost like they learnt it and then left it behind... she ended up spending a lot more time on those individuals because they weren't on the same level"</i></p> <p>002 <i>"I think that primary health care would be a really, really good option to have before they are accepted into occupational health"</i></p> <p>002 <i>"...management module was very challenging"</i></p>

003 “... it was not actually nice working in my group... you know in a group not all out the same effort”

003 “I would say the hours are enough... though at one stage I would have to go to different companies on the weekends because I wouldn't get enough time in my work actually to go”

004 “oh my gosh the hours, actually those were a lot of hours...very challenging... but the time the timing was more challenging... lot of requirements that we had to make in order for us to complete the course”

004 “Group work is actually a nice thing because if you didn't understand a certain think or wanted clarification... but with the group you discover some of the group members were dragging their feet when it comes to the task”

004 “wow my challenge... I was given study leave... when the leave was finished so I had to utilise my annual leave and I went into a negative balance where I was left without pay... I was thinking of pulling out of the course”

005 “... so that's the challenge that I have here, when I first started I needed to tune my mind in dealing with a well person”

005 “...you know what you are supposed to be doing... where I was working you have maybe twenty medicals... and you find that your skill or whatever that you are supposed to be doing is somehow compromised because you look at the load of the day...because of being short staffed”

005 “... supposed to have one goal... but you know some people the others they are there for just being there, others are there to give information, others are there to be tagged along because they know that once the group pass we all pass you know”

006 “The group work was in the beginning a bit challenging because we didn't have everyone with the same enthusiasm... always find one or two guys that pull a bit or so... but group work is also important I think it's a nice thing to do if you are studying”

		<p>006 "...I think they need to give more attention to the practical... need to come and see how you do a physical...they just explained to us and that was it... your practical hangs a bit"</p> <p>006 "...challenging to study part time, if you are working and you have a child..."</p> <p>007 "...my time management was not good to be honest with you... I left my practical more towards the end... I was battling...I actually think I could have done much more you know, I would have loved to have gone to a food industry"</p>
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NOTES/EXTRA	<p><b>Interview2</b></p> <p>Management module challenging</p> <p>Lack of support</p> <p>Module should be more basic/more time</p> <p>OHN practical experience enough</p> <p>Areas of study applicable to real life work duties</p> <p>Need practice/experience disaster management</p> <p>Lack of experience younger nurses – keep class back</p> <p>Respects and highly commended thoughts lectures</p> <p><b>Interview 7</b></p> <p>Wanted more exposure to other OH environments</p> <p>Time management problem</p> <p>Battling with practical towards end</p> <p>Learn a lot from OHN/some independent</p> <p>More time for practical</p>
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Add additional 6 month to get practical done  
BTech content covered – implemented in workplace everyday

**Interview 6**

Group work challenging – not sharing same enthusiasm  
Have to pull some through  
Motivation for studying – forced (working many years in OHN)  
Experienced tutors/clinical facilitators needed in field to follow up students and guidance  
No follow up in the field  
Sign off hours – submit – no real evidence if hours was utilized as intended  
Practical hours are enough if utilized correctly  
Challenging studying part time while working/family

**Interview 3**

Practical hours adequate  
Not enough time to visit various setting during week  
Study leave not a problem – supportive manager  
Interested in doing Masters



**Interview4**

Hours was a lot – challenging  
Group work good experience - consult with peers when unsure  
Not always the same input from all members (proactive some not active)  
Study leave challenge  
Deadlines/time management challenge

**Interview 5**

Group work challenge – not easy people have different goals  
Some lean on others for information  
Would like more exposure to other industries

Document Viewer

## Turnitin Originality Report

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