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Professional nurses at a Psychiatric Hospital in the Western Cape's knowledge and attitudes towards care of patients with eating disorders

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KEYWORDS

Anorexia Nervosa

Attitude

Binge Disorder

Bulimia Nervosa

Eating Disorders

Knowledge

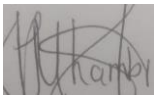
Professional nurses

ABBREVIATIONS

AN	Anorexia Nervosa
BD	Binge Disorder
BN	Bulimia Nervosa
DOH	Department of Health
ED	Eating Disorders
SANC	South African Nursing Council
SPSS	Statistical Package for Social Sciences
OSFED	Other Specified Feeding or Eating Disorders
CAMHS	Child and Adolescent Mental Health Services

DECLARATION

I, Zusive Mhambi, hereby declare that this mini-thesis dissertation titled **Professional nurses at a Psychiatric Hospital in the Western Cape's knowledge and attitudes towards care of patients with eating disorders** has not been submitted for examination for a degree at any another institution. This is my original work, and all the information taken from existing sources has been acknowledged by means of references and a list of references.



Zusive Mhambi

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DEDICATION

I dedicate this thesis to my family, my parents, and my siblings for their endless support and love. I also dedicate this work to my friends that always stood by me and supported me throughout this journey. To my supervisor who repeatedly assisted and guided me in every way possible to ensure success of this study. To God Almighty for always guiding me and strengthening me to push forward and come out victorious from anything.

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ABSTRACT

Background: Eating disorders are weakening conditions that will affect a person's physical and mental well-being. In South Africa, the treatment of eating disorders has changed over the years with more patients being treated in the private sector and on an out-patient basis. However, patients admitted to public psychiatric hospitals are still dependent on the care provided by professional nurses. Eating disorders are a wide range of disorders that require highly specialized care; hence the knowledge and attitudes of health workers in general, and nurses, are important for its management.

Aim and objectives: The purpose of this study was to describe professional nurse's knowledge and attitudes towards care of patients with eating disorders. The objectives were to describe professional nurse's knowledge about eating disorders and as well as describing the professional nurse's attitudes towards the care of patients with eating disorders.

Methodology: A quantitative descriptive survey was utilised using a self-administered or hand delivered questionnaires that were collected at a later stage. An all-inclusive sampling was used for this study as the population for this study was relatively small. Data analysis was done using Statistical Package for the Social Sciences (SPSS version 28). Descriptive statistics, including mean, mode percentage and crosstabs was used to analyse data.

Ethics: The ethics clearance was granted by the Biomedical Research Ethics Committee of the Western Cape and permission was obtained from the Western Cape's Department of Health Research as well as the facility manager to conduct the study at the selected facility. Informed consents were requested from all the participants prior to participation. The principles of ethics

such as voluntary participation, informed consent, anonymity, and confidentiality were maintained throughout the study by the researcher.

Results: Most of the staff had positive knowledge on the development of eating disorders. Under the knowledge on development of eating disorders the overall average mean of the scale was 7.4 which depicts positive knowledge on physical consequences of the development of eating disorders. Most of the respondents were able to assess the physical complications of anorexia nervosa, bulimia nervosa and binge eating disorder accordingly which also showed that they had positive knowledge on the consequences of eating disorders. Attitudes towards eating disorders in clinical practice, the overall mean of the scale was 6.4 which depicts positive knowledge on attitudes towards eating disorders in clinical practice. They also showed positive practices towards what would be done for a suspected client having eating disorders, as the majority chose the most correct answer and only a minority chose incorrect answers. This showed that most nurses had positive practices towards the care of patients with eating disorders.

Conclusion: It is noted that the overall respondents depict a positive knowledge towards eating disorders and towards the practices or care of patients with eating disorders. There is still room for improvement to increase the knowledge of nurses towards eating disorders so that those who still feel uncomfortable dealing with eating disorders may gain more information and confidence towards eating disorders and caring for patients with eating disorders.

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CHAPTER 1

ORIENTATION TO THE STUDY

1.1 Introduction

Eating disorders are listed as a global burden of disease, the global burden of disease 2019 estimated a prevalence of 13.6 million anorexia nervosa or bulimia nervosa cases and an additional 41.9 million cases of binge eating disorder and other specified feeding or eating disorders (OSFED) globally in 2019 (Phillipa, Rebekah, Lucie, & Janet, 2023). The estimated total number of eating disorder cases in 2019 was 55.5 million. Anorexia Nervosa's key symptoms include unwillingness to maintain a minimally normal body weight, strong anxiety of weight gain, a considerably impaired body size perception and amenorrhoea in post-menarcheal females. People with anorexia nervosa are normally underweight, but they continuously decrease their food intake, as they have constant fear of gaining weight (Liu, Ozodiegwu, Yu, Hess & Bie, 2017). After food consumption they get feelings of guilt and end up using laxatives or purging as a way of removing the food to prevent weight gain (Liu et al., 2017). Bulimia Nervosa characteristics include a recurrent binge eating and inappropriate compensatory behaviors such as self-induced vomiting; misuse of laxatives, diuretics, or other medications; fasting or excessive exercise occurring at least twice a week for three months (Dray, Gilchrist, Singh, Cheesman & Wade, 2014). Binge Eating Disorder is characterized by recurrent binge eating without inappropriate compensatory behaviors, occurring at least weekly for three months (Dray et al., 2014).

Eating disorders present as eating behaviours that are physically, mentally, and socially disabling (Catherine, 2017). Historically, eating disorders have been regarded as 'underdiagnosed, undertreated and misunderstood" in men, and was regarded as women's issues (Dray et al., 2014).

Anorexia Nervosa, Bulimia Nervosa, Binge-Eating Disorder, and other specified feeding or eating disorders are all examples of eating disorders (Phillipa, Current approach to eating disorders: a clinical update, 2020). Eating disorders typically appear in adolescence and early adulthood, but they can appear at any age (Pamela & Jean, 2013). The onset of anorexia nervosa and bulimia nervosa peaks between 14 and 22 years of age, with a median age of 18 years. Binge eating disorders typically appears between the ages of 17 and 32, with a median age of 21 (Pamela & Jean, 2013).

The origins and aetiology of eating disorders are complicated and multi-factorial with risk factors starting intra-uterine, for example, exposure to rubella and herpes, and growing during teenage years -which explains the young age of outset of the condition (Pamela & Jean, 2013). Risk factors for the development of eating disorders can be classified into genetic predispositions, psychological causes, and psychosocial causes (Pamela & Jean, 2013).

1.2 Background

Approximately 30 million people of all ages and genders are suffering from eating disorders in the United States of America. Lifetime and point prevalence data have demonstrated that between 1.5 and 2.9% of people have experienced bulimia nervosa, and as many as 2.9 to 5.6% have met criteria for binge eating disorder, and 0.4 to 0.9% have experienced anorexia nervosa (Hay, Girosi & Mond, 2015).

A study covering a 21-year period in a South African tertiary hospital in Cape Town conducted by Kidd Macharia, Williams, Moxley & Jordaan (2020). Phillipa, Rebekah, Lucie and Janet (2023), which aimed to determine the prevalence of the concurrent nature and the possible trends of substance use among patients diagnosed with eating disorders, found that the prevalence of eating disorders subtypes was 40.1% bulimia nervosa, 33% binge eating disorders and eating disorders not otherwise specified and 26.5% anorexia nervosa. Eating disorders have been found to be accompanied by other disorders. The study conducted by Kidd et al., (2020), performed a retrospective review of 162 patients who were treated for eating disorders between January 1993 and December 2014 to determine the concurrent nature and the possible trends of substance use among patients diagnosed with eating disorders. The study found that most patients (71.0%) used at least one substance. Alcohol was the most prevalent substance of choice (54.8%). Most patients had an additional psychiatric disorder (62.3%), of which major depressive disorder was the most prevalent (46.3%). In this study they also identified the risk factors associated with these disorders to be partially related to another. When co-occurring, eating disorders and substance use disorders provide a significant challenge and have significant effects on patient management and therapy (Kidd et al., 2020). Among all psychiatric diseases, these two are individually linked to the greatest mortality rates and come with complicated physical, emotional, and social issues. Important personality qualities like impulsivity and mood instability may be made worse by substance abuse, which could make eating disorder treatment less effective (Kidd et al., 2020). It can also exacerbate the physiological effects of malnutrition or malnourishment in patients with eating disorders and impair cognition, which may have an impact on the effectiveness and adherence to therapy (Kidd et al., 2020) . Furthermore, if therapy is solely focused on treating one condition, there is a significant chance of symptom substitution, or moving from one disorder to

the other. It is therefore advised to use an integrated approach to management and treatment that addresses both illnesses (Kidd et al., 2020).

Literature indicates that at least every hour and 2 minutes a person dies as a consequence of an eating disorder (Hawkins-Elder & Ward, 2020). The global burden of disease study in 2013 found a significant burden of eating disorders, specifically in young women living in high-income countries. However, between 1990 and 2013, the relative ranking of the burden of eating disorders in low and middle-income countries increased (Hawkins-Elder & Ward, 2020). Globally, anorexia nervosa and bulimia nervosa were responsible for 1.9 million disability life years in 2013 (DALYs) (Hawkins-Elder & Ward, 2020). The loss of one DALY is comparable to one year of good health. A disease's or condition's DALYs are calculated by adding the years of life lost to premature death and the years spent with a disability because of the disease or condition's high prevalence in the population (Wagner, Ibinda, Tollman, Lindholm, Newton & Bertram, 2015).

Liu, Ozodiegwu, Hess and Bie (2017), suggest that 50 – 80% of people suffer from anorexia nervosa due to genetics, and females are affected more than males. Eating disorders affect all racial and ethnic groups, but is more prevalent during the adolescent stage, as this stage involves peer pressure and trying to fit in (Liu et al., 2017).

1.2.1 Treatment for eating disorders internationally

In the United Kingdom up to 1.25 million individuals are affected by eating disorders, however there are moderately rare resources accessible to treat them (Monteleone, Treasure, Kan & Cardi, 2018). Eating disorders are mostly treated in psychiatric services in the United Kingdom, either in specialised psychiatric eating disorder services or in general psychiatric services for people of all ages. When a person reaches the age of 18, he or she transitions from Child and Adolescent

Mental Health Services (CAMHS) to adult psychiatric services in United Kingdom (Chambers, 2017). The evidence for family engagement in CAMHS is clear, and families are regularly involved with both therapy and management meetings. In adult settings, the proof is less clear, and confidentiality is given as an explanation not to include families, who would have been a vital part of the CAMHS care team and are still going to provide care. As a result of this exclusion, the treatment team lacks information (Murray, 2020).

Traditional approaches to treating various eating disorders have mostly relied on medicine and behavioural therapy (Escolar-Llamazares, Martinez, Gonzalez, Medina, Mercado & Lara, 2017). Medication and treatment, like many other mental health illnesses, became the most prevalent technique in clinical practice for treating eating disorders. However, current meta-analyses of these techniques show that they are ineffective in treating eating disorders (Murray, 2020). The scarcity of therapy alternatives for eating disorders has created an exciting potential for many fresh treatment options to overcome the limitations in the present treatment approaches. As a result, the current field of study in eating disorders has begun to extend into several novel treatment strategies (Friedlich, Covarrubias, Park & Murray, 2023).

1.2.2 Eating disorders in the African context

A study conducted by Van Hoeken, (2016) on eating disorders in Africa found that the epidemiological study of eating disorders in Africa is still in its infancy. Over time only four studies providing epidemiological data on specific, formally assessed eating disorders were found in the continent of Africa. No cases of anorexia nervosa were reported in African epidemiological studies, which concurs with the very low prevalence rates of anorexia nervosa in Latin Americans and in African Americans in the USA. With the DSM-5 criteria for anorexia nervosa, some

women in the African studies would have fulfilled the criteria for anorexia nervosa. The prevalence rate of bulimia nervosa in women in Africa is within the range reported for Western populations, as well as African Americans and Latin Americans.

1.2.3 Eating disorders in the South African context

Eating disorders have been documented in South Africa since the 1970s with the earliest descriptions of clinical samples emanating from both Cape Town and Johannesburg. These conditions, at that point, conformed demographically to the prevailing stereotype that it affected young white females. Reports in the 1980s dispelled the notion that eating disorders affected only white females in urban, "Western" settings. Later studies conducted between 1998 and 2016 indicated change in understanding eating disorders (Szabo, 2019). Within the South African context there were only two South African studies conducted around 1984 to 1994, both at Groote Schuur Hospital, in Cape Town, with neither study emanating from a dedicated eating disorders unit. The study findings emphasized that beyond weight restoration as a primary outcome, several related dimensions of both psychological and emotional functioning also improved, with adequate weight restoration (Szabo, 2019). Specifically, it was found that nutritional status was positively correlated with mood related symptom improvement (Szabo, 2019). This provided important data supporting a nutritional rather than a medication-based approach to the treatment of mood symptoms in anorexia nervosa (Szabo, 2019). Moreover, the study also clearly demonstrated the range of improvements beyond weight restoration, thus providing data to demolish the perception that admission was simply a weight gaining exercise – often cited as a basis for non- admission (Szabo, 2019).

It is evident that the treatment of eating disorders in South Africa has changed over the years with more patients being treated in the private sector and on an out-patient basis. However, patients admitted to public psychiatric hospitals are still dependent on the care provided by professional nurses. The broad learning outcomes of the nursing programmes, according to the South African Nursing Council Regulations R425 and R174, ensures that nurses are equipped to manage eating disorders (Geyer, 2017).

1.3 Problem Statement

Globally, studies show that the lifetime prevalence rates of eating disorders are 0.9% for anorexia nervosa and 1,5% for bulimia nervosa, 2.8% for binge eating disorder (Udo & Grilo, 2018). The true incidence of eating disorders is unknown. However, cohort and clinical incidence studies suggest a community-wide increase in bulimia nervosa and in binge eating disorders (Udo & Grilo, 2018). The prevalence of eating disorders is generally higher in women and in young people (Udo & Grilo, 2018). However, binge eating disorder is more common in men. Patients with eating disorders are often admitted into psychiatric or mental health hospitals and specialized units for the treatment of bulimia and anorexia nervosa.

Most studies on eating disorders were conducted internationally, and no studies were found in the Western Cape, South Africa that described the professional nurse's knowledge about and attitudes towards the care of patients with eating disorders. Given that nurses are the health workforce who spend the most time at the bedside of patients, it is important that they are knowledgeable, and have the appropriate attitude towards working with patients with eating disorders to ensure positive patient outcomes, and it is important if they are knowledgeable enough, that they render quality care that will help patients' recover (Udo & Grilo, 2018). Care must not only focus on the

symptoms and physical effects of these disorders, but also on any psychological issues that contributed to them (Liu et al., 2017). This requires professional nurses to have specific knowledge and a positive attitude. Professional nurse's knowledge about and attitudes towards care of patients with eating disorders in the local context is however unknown.

1.4 Significance of the Study

In a country like South Africa, where there are people of many different races and cultures, who hold different values, a study like this would make significant contributions for preparing professional nurses to manage eating disorders across such cultural diversity. This study will be significant to nursing education as it will provide evidence for developing learning outcomes for programmes such as mental health nursing to improve the preparedness of professional nurses to care for patients with eating disorders. Consequently, with improved nurse preparation, the care of patients with eating disorders should improve. It is also important that this study be conducted to fill the gap in local research.

1.5 Aim of the Study

To describe professional nurse's knowledge and attitudes towards care of patients with eating disorders.

1.6 Objectives of the Study

1.6.1 To describe professional nurse's knowledge about eating disorders.

1.6.2 To describe the professional nurse's attitudes towards care of patients with eating disorders.

1.7 Research question

What is the knowledge and attitudes of professional nurses at a psychiatric hospital in the Western Cape towards care of patients with eating disorders?

1.8 Research Methodology

This section briefly describes the research methods used in this study. A detailed description of the methodology is provided in Chapter 3.

1.8.1 Research Design: A quantitative descriptive survey was used to collect data.

1.8.2 Sampling: All-inclusive sampling was applied because the population for this study was relatively small (N= 114).

1.8.3 Data Collection: The researcher hand delivered the questionnaires to participants. Participants were asked to complete the questionnaires and place them in a secure box provided by the researcher, who collected them at a later stage.

1.8.4 Data Analysis: The data was captured on an excel spreadsheet and was imported into SPSS software for analysis. The data was analyzed using SPSS version 28 and statistics were used to present data.

1.9 Ethics

Ethics: The study was approved by UWC BMREC, ethics reference number; BM20/10/26. Permission to conduct the study was sought from the Western Cape Department of Health and the facility manager at the hospital proposed for the study. Participants were given a full explanation about the study before they sign the consent form. The researcher's contact details

were provided in the second page of the information sheet, should they have any questions when completing the questionnaire.

1.10 Clarification of Concepts

Anorexia Nervosa: An emotional disorder characterized by an obsessive desire to lose weight by refusing to eat (Hornby, 2015). This definition was used for this study.

Attitude: Actions based on conscious or unconscious mental beliefs formed by accumulated experiences (Hornby, 2015). For this study attitudes refers to professional nurse's feelings and beliefs that may influence the provision of care for patients with eating disorders.

Binge Eating Disorder: Binge eating disorder involves the sense of "losing control" over ones eating and consuming a large amount of food within a short period of time, typically accompanied by feelings of guilt, shame, disgust and depression. Binge eating is a feature of bulimia nervosa, binge eating disorder and the binge-purge of anorexia nervosa (Berner, Sysko, Rebello, Roberto & Pike 2020). This definition was used in this study.

Bulimia Nervosa: An emotional disorder characterized by distorted body image and an obsessive desire to lose weight, in which period of extreme overeating are followed by fasting or self-induced vomiting or purging (Hornby, 2015). This definition was used in this study.

Eating Disorder: Eating disorders are biologically based psychological disorders, the physical behaviours of which can lead to severe medical problems. They are weakening conditions that will affect a person's physical and mental well-being (Geiger, Boggero, Brake, Caldera, Combs, Peters & Baer, 2015). For this study eating disorders refers only to anorexia nervosa, bulimia nervosa and binge eating disorder.

Knowledge: Knowledge is a consolidation of understanding the information gained from a certain experience which is gained and used to build a specific skill (Hornby, 2015). For this study knowledge refers to the knowledge of the professional nurses regarding eating disorders.

Nurse: A nurse is an individual registered in a category under section 31(1) of the Nursing Act to practice nursing or midwifery (Singh & Mathuray, 2018). For this study a nurse refers to professional nurses and community service nurses working at the hospital proposed for the study on both day and night shift.

1.11 Outline of the thesis

Chapter One: This chapter provides an overview of the study. It includes the introduction of the research problem, background, significance of the study, aims and objectives, research methods, definition of terms, outline of the chapters and a summary of the chapter.

Chapter Two: This chapter discusses the literature that relates to nurse's attitudes and knowledge towards the care of patients with eating disorders in psychiatric care.

Chapter Three: This chapter describes the research methodology that was used to get answers to the research questions. The study design and how the questionnaire was developed and how it was presented to the participants is also discussed. This chapter also provides details regarding the pre-test that was conducted to minimise the risk of poor validity and reliability. This chapter further presents the study setting, study population, data collection tool and sampling procedure, inclusion and exclusion criteria, data collection instrument, validity, and reliability, pretesting of the questionnaire, data collection process, data analysis, research ethics and conclusion.

Chapter Four: The result of each objective is discussed in this chapter.

Chapter Five: This chapter discusses the findings of the study with the support of existing literature on the topic of professional nurse's knowledge and attitudes towards the care of patients with eating disorders.

Chapter Six: This chapter provides a summary of the research findings. It also includes recommendations based on the results, limitations of the study and draws the study to conclusion.

1.12 Summary

In chapter one an introduction and background to the study was provided before the problem statement was sketched. The significance of the study, aim and objectives and methodology were briefly described. The concepts used in the study were clarified and the layout of the thesis was provided.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

This chapter presents a review of literature on eating disorders which focuses on the background and causes of eating disorders; the classification of eating disorders according to the DSM V and risk factors that may contribute to the development of eating disorders. Empirical literature on professional nurse's knowledge and attitudes towards care of patients with eating disorders is also presented. Different search engines were used to access relevant literature, including Google Scholar, Pudmed, Cinnall, e-sabinet, ERIC (EbscoHost), Academic Search Complete, Biomed Central (BMC) and Sage Journals Online (SJO).

2.2. Background and causes of eating disorders

Eating disorders are physical behaviours, which have a biological root in psychological illnesses, and which might result in serious medical complications. Eating disorders are generally related to a multitude of physiological, mental, social, and economic conditions and have the highest mortality of all mental disorders. The Diagnostic and Statistical manual – Fifth Edition (DSM V) list four distinct kinds of eating disorders. These disorders include Anorexia Nervosa (AN), Bulimia Nervosa (BN), Other Specified Feeding and Eating Disorders (OSFED and Binge Eating Disorder (BED) (Wright, 2016).

A person with anorexia nervosa severely restricts the amount and type of food they consume (Friedlich, Covarrubias, Spark & Murray 2023). They may also weigh themselves several times

a day. Even if they are dangerously underweight, the person may perceive themselves to be overweight. Anorexia Nervosa is classified into two subtypes: "restrictive" and "binge-purge". People with the binge-purge subtype of anorexia nervosa also severely limit the amount and type of food they consume. Furthermore, they may experience binge-eating and purging episodes, which involves eating a large amount of food in a short period of time, followed by vomiting, or using laxatives or diuretics to get rid of what was consumed (Wright, 2016).

Anorexia Nervosa is potentially fatal, when compared to other mental disorders, it has an extremely high mortality rate. People suffering from anorexia are at risk of dying from medical complications related to starvation. Suicide is the second leading cause of death in anorexia nervosa patients (Friedlich et al., 2023).

Several eating disorders, most notably bulimia nervosa and binge eating disorder, are distinguished by binge eating or feeling out of control while consuming a significant quantity of food in a short period of time. Binge Eating disorder can be exceedingly stressful and resistant to treatment. It is sometimes accompanied by compensatory behaviours such as self-induced vomiting and has been linked to overweight and obesity. At some point in their lives, 3.0 percent of adults will have binge eating disorder and 1.5% will develop bulimia nervosa (Chambers, 2017). Binge eating behaviours are caused by a variety of factors, including biological factors such as genetics, gender, hormonal impact, psychosocial, such as stress and lifestyle, and comorbid illnesses such as anxiety and depression (Chambers, 2017).

Other specified feeding and eating disorders is the latest category that includes subthreshold and atypical conditions. In this classification, a person has an eating disorder but the physical and/or psychological symptoms do not meet the criteria for anorexia, bulimia nervosa or binge eating disorder (Keel & Brown, 2010). This category is like the previously used category of

unspecified eating disorders (EDNOS). Despite being given less attention than anorexia nervosa, bulimia nervosa and binge eating disorder, other specified feeding and eating disorders are among the most common eating disorder seen in practice. A common feature of all eating disorder is that people rely on their weight and shape to determine their sense of self-esteem and self-worth (Murray, 2020).

The causes of eating disorders are not really known. However, eating disorders are linked to a complex interaction of genetic, biological, behavioural, psychological, and social factors, according to researchers (Feldman, 2015). Eating disorders are being studied using cutting-edge technology and science. Eating disorders are difficult to analyze and treat, however, evidence indicates that early diagnosis and treatment may improve recovery prospects (Johns, Taylor, John & Tan, 2019). Mental illness still causes feelings of shame and fear for the mentally ill; and disgust from other people who may have negative attitudes towards mental illness as a whole (Feldman, 2015). Mental health, however, is a key component of the wellbeing of a person and as such is incorporated in the broader definition of health and therefore eating disorders, based on its link with mental illness, warrants adequate attention.

2.3 Risk factors for the development of eating disorders

Research on the risk factors for eating disorders is required to better understand the causes of eating disorders and to guide programs that attempt to lower the risk factors. Australia's National Eating Disorder Research and Translation Strategy 2021-2031 organises their review results according to nine major risk factor categories that may contribute to the development of eating disorders, including, genetics, gut microbiota, autoimmune responses, early adolescent

exposures, personality characteristics, socioeconomic position, ethnic minority and childhood and teenage exposures (Pursey, Burrows, Barker, Hart & Paxton, 2021).

2.4 Professional nurse's knowledge and attitudes towards care of patients with eating disorders

A total of 82 participants (32 nurses and 50 paediatric residents) completed the survey in a study conducted by Raveneau (2014), in the United Kingdom, which aimed at determining the attitudes of nurses and paediatric residents towards adolescents and young adult with eating disorders. Only two nurses and six residents had not worked with a patient with an eating disorder in the previous year. Most nurses and residents recognized that fear of gaining weight, refusal to maintain body weight and, disturbed body image were frequent signs occurring in patients with an eating disorder. Both nurses and residents believed that emotional problems, influence of friends and family, family pressure, influence of the media, and being self-induced were the most likely causes of eating disorders. Genetics and influence of other medical problems were deemed less likely causes. Most residents identified having different rules for different patients and poor communication as factors that make it difficult to take care of eating disorder patients. More than half of all nurses and residents (58.2%) thought that eating disorder patients were responsible for their disease "always" or "in most cases". Residents (68.8%) were more likely than nurses (45.2%) to frequently feel frustrated with eating disorder patients. They concluded that adolescents with an eating disorder provide a unique challenge to nurses and residents caring for them. The gap found in literature is the lack of updated information about eating disorder prevalence's in South Africa and in Africa.

There is an overall dearth of literature on the knowledge and attitudes of professional nurses towards patients with eating disorders. This section therefore presents a discussion related to health care workers in general.

Most studies on health workers' views on eating disorder were conducted in primary care or generalist settings, frequently with early-career professionals, students, or apprentices. Studies conducted across a range of geographic locations, including the United Kingdom, Ireland, United State of America, Canada, Australia, New Zealand, Sweden, Norway, Netherlands, Belgium revealed a lack of resources and training that contributed to feelings of under preparedness and being unskilled in the management of eating disorders (Reas, Isomaa, Solhaug Gulliksen & Levallius, 2021). General practitioners have been seen to exhibit gloomy attitudes about the chronicity of Anorexia Nervosa and give the illness a relatively poor treatment outlook (Reas et al., 2021). General practitioners and nurses have shown stigmatizing or unfavourable perceptions of people with eating disorders, such as, that they are difficult, time-consuming, or manipulative. In a study conducted by Reas, Isomaa, Gulliksen and Levallius (2021), a total of 144 healthcare workers working in the emergency department answered the survey's questions about attitudes. A total of 36.8% of participants were psychologists, 14.8% were nurses, and 13.4% were doctors, 4.9% physiologists/exercise scientists, 11.3% nutritionists/dieticians, and 5.6% other professions. An estimated 80% of participants were categorized as clinicians, 14% as clinician-researchers and 5% as researchers. Most respondents (80%–99%) agreed or strongly agreed that binge eating disorder, bulimia nervosa, and anorexia nervosa reduced quality of life and/or created problems for family and/or friends (75%–99%). The majority also considered binge eating disorder, bulimia nervosa, and anorexia nervosa as serious and persistent mental illnesses (65%–83%) and thought the conditions were psychological rather than medical (65%–71%) (Reas et al., 2021). Compared

to bulimia nervosa or anorexia nervosa, dealing with binge eating disorder was viewed as substantially less enjoyable for health practitioners. Most participants (56.3%) reported that they felt most comfortable working with people who had anorexia nervosa, followed by 35.4% and 7.6% who felt most comfortable with people who had bulimia nervosa and binge eating disorder. The majority, on the other hand, felt least confident when working with binge eating disorder (62.0%), followed by anorexia nervosa (25.2%) and bulimia nervosa (12.7%). A total of 51% of professionals reported that treating eating disorder as more difficult than treating other mental illnesses (Reas et al., 2021).

In 2017, the Health Research Board in UK discovered that 14% of all under-18-year-old admissions to Irish mental health inpatient facilities had an eating disorder as their major diagnosis (Daly & Craig, 2016). To achieve the best recovery results, Child and Adolescent Mental Health Services (CAMHS) must prioritize proper early interventions at this vulnerable developmental stage (Stiles-Shields, Goldschmidt, Lock & Le Grange, 2013). However, the mental health nurse working in an inpatient setting faces several difficulties due to the ambivalence of adolescent patients who present with eating disorders to get treatment (Mohamed, 2014).

According to the literature, less qualified physicians are more likely to have unfavourable views and beliefs about people who have eating disorders. Because of this, eating disorders are frequently misunderstood, making education a crucial tool to combat misconceptions and improve the nurses' capacity to forge therapeutic connections with these patients (Farrington, Huntley-Moore & Donohue, 2020). According to the Nursing and Midwifery Board of Ireland (NMBI) the undergraduate mental health nursing curriculum in the Republic of Ireland has paid very little emphasis on child and adolescent mental health (Farrington et al., 2020). New standards and procedures for the nurse registration program were published by NMBI in February 2016 and

went into effect in September 2018 (NMBI, 2016). The care of adolescents with eating disorders has however not received as much attention as child and adolescent mental health.

In a study conducted by Dave, Hellzen and Haggstrom (2020), which aimed to illuminate the meaning of nurses' lived experiences of encounters with adult patients with anorexia nervosa in psychiatric inpatient care in Sweden, the results showed that encountering patients with severe eating disorders, such as anorexia nervosa, evokes an emotional response in nurses and that the encounter is seen as demanding and sometimes emotional, causing nurses to re-evaluate their previous perceptions of the illness (Dave et al., 2020). Working according to a predetermined structure and a treatment program helps nurses cope, as they have a protocol to rely on, especially when encountering the patient for the first time or in situations where patients are ambivalent or resistant to receiving treatment (Dave et al., 2020). Nurses sometimes have encounters with relatives, which can be challenging and difficult due to the relative's own knowledge of the illness and engagement in the treatment (Dave et al., 2020).

2.5 General health care worker's knowledge and attitudes towards eating disorders

In a study conducted by Jones, Saeidi and Morgan (2013) in Australia which aimed at examining the eating disorder mental health literacy of psychiatrists. There were differences in the information that psychiatrists had regarding eating disorders, particularly regarding the diagnosis and treatment of these problems. It seems that psychiatrists who practice in environments where they would be more most likely to encounter incidents of eating disorders when learning with seniority and clinical expertise, scores seem to rise. A small percentage of psychiatrists were able to identify some diagnostic criteria for both anorexia nervosa and bulimia nervosa , and other physical problems were not identified at all. This is concerning because identifying clinical signs

and symptoms is crucial for correct diagnosis, physical risk assessment, selecting the best course of care, and assisting in informing the patient and their family of the diagnosis. It's noteworthy to note that fewer than half of psychiatrists identified amenorrhea as a necessary diagnostic component for anorexia nervosa (Jones et al., 2013) . Psychiatrists' degrees of confidence varied, with most of them feeling more at ease treating eating disorders than diagnosing them. In fact, only 14.9% of practitioners reported being confidence in their capacity to treat eating disorders in their current settings, which could be partially attributed to the relative rarity of these diseases in non-specialist settings. It is possible that this study's discovery which is consistent with earlier research in this area that psychiatrists were usually unhappy with the quality of eating disorder training they had received throughout their psychiatric training was a contributing factor (Jones et al., 2013).

In conclusion this study clearly demonstrates the necessity to improve general psychiatrists' knowledge levels to ensure that their therapeutic activities are correctly informed and carried out. Similarly, it's critical that general psychiatrists who treat patients with eating disorders acquire sufficient training in both the diagnosis and treatment of these problems (Jones et al., 2013).

In another study conducted by Doherty and McNamee (2015), which aimed to compile a national picture of the diagnosis, referral practices, and management of eating disorders in primary care in Ireland. The response rate of 22% was in line with earlier research in this area. Over 33% of general practitioners stated they lack the necessary training to manage eating disorders eating disorders. Over 25% stated there were no resources at their disposal to manage eating disorders and 38% had failed to diagnose a patient in the eating disorders who was later found to be suffering from an eating disorder. Sixty percent of respondents overall felt uniformed about how to carry out an

eating disorders examination. 54% replied they have no idea about the optimal way to discuss weight control with an eating disorder patient and nearly half of those surveyed said they felt uninformed regarding the resources that they may access locally (Doherty & McNamee, 2015).

For those with eating disorders, the best possible health results depend on early detection and treatment. Nonetheless, poor diagnostic precision and a deficiency of specialized eating disorders training are prevalent workforce issues in Australia and around the world (Varcarolis, 2017). Here were notable gains in self-assurance, expertise, and treatment abilities for eating disorders, as well as a decrease in stigmatizing attitudes (Varcarolis, 2017). Particularly, after completing the program, dieticians, psychologists, and those employed in rural areas showed greater increases in their willingness to treat eating disorders; hospital employees and those employed in regional or rural areas showed the greatest increases in confidence for treating eating disorder patients; and health professionals in the field of education reported a notable improvement in their level of knowledge (Varcarolis, 2017). The Essentials program is an efficient means of satisfying the educational requirements of participating health professionals who care with eating disorder patients, as it reaches a large audience at a comparatively cheap cost (Varcarolis, 2017).

In a study conducted by Funari (2013) on detecting symptoms, early intervention, and preventative education, the school nurse has a duty to counsel the student and family if there are indications that the child or teenager may be at risk of eating disorders or participating in these behaviours. Assessing the kid or adolescent's eating habits, attitudes toward weight and form, and physical, social, and mental health should be the initial step, according to recommendations. It is important to assess and review the student's baseline height, weight, and other key physical parameters along with their medical history. Years of misery for the young person and his or her family can be avoided with early intervention, which has proven to be quite beneficial (Funari, 2013).

Lastly, since the school nurse's eyes and ears will be crucial to early intervention, she should actively participate in teaching parents and teachers how to recognize these life-threatening illnesses, advocates for training sessions and instructional material dissemination should be school nurses. It's crucial to frequently fund events where parents, teachers, and kids may hear from professionals in the field of eating disorders and gain insight from those who have overcome their eating disorders (Funari, 2013).

An integral component of the youth health care system in our country is the school nurse. School nurses at all educational levels must prioritize these behaviours considering the growing prevalence of eating disorders in children and adolescents. The school nurse can serve as a resource for parents, students, and instructors who may be concerned about a particular student by being aware of the signs and symptoms as well as available treatments. Above all, school nurses' support of increased education about eating disorders is essential to assisting our kids in leading healthy, fulfilling lives (Funari, 2013).

2.6 Summary

The literature review chapter gave an overview of eating disorders with reference to the background, causes and risk factors that may contribute to the development of eating disorders. It also provided literature on professional nurses' knowledge and attitudes towards the care of patients with eating disorders and that of health care workers in general. It is important that more studies be conducted to investigate nurse's knowledge and attitudes towards care of patients with eating disorders to close the knowledge gap and to improve the standard of care for these patients.

CHAPTER 3

METHODOLOGY

3.1 Introduction

Methodology refers to the strategies that the researcher's followed to get answers to the research question (Pettey, 2017). This methodology chapter presents the following subsections: the study approach and design, study setting, population, sampling, inclusion and exclusion criteria, data collection instrument and process, validity and reliability, data analysis and research ethics, which applied to the investigation of the phenomenon.

3.2 Study Approach

The researcher used a quantitative research approach, as the study aimed to describe professional nurses' knowledge and attitudes towards care of patients with eating disorders. A systematic and objective inquiry using numerical data from a sample or population to generalize the findings is known as a quantitative research approach.

3.3 Study Design

Study design is defined as the architectural backbone or blueprint of the study (Polit, 2014). The researcher used the quantitative descriptive survey design, as the study aimed to describe professional nurses' knowledge of and attitudes towards care of patients with eating disorders. A descriptive design is best used when there is lack of knowledge about the

phenomenon of interest and is relevant to this study because there is a lack of literature regarding professional nurses' knowledge about and attitudes towards the care of patients with eating disorders in Cape Town (Polit, 2014).

3.4 Study Setting

The research setting is defined as the place where the researcher will collect the data required for the study (Brink, 2018). This study was conducted at a 423-bed public psychiatric hospital in Cape Town, South Africa. The hospital provides a variety of mental health care services to the areas such as the Khayelitsha-Eastern and Klipfontein- Mitchells plain substructures of the Cape Metropole. The services it provides includes, but is not limited to, acute psychiatric, forensic, psycho-geriatric, child and adolescent psychiatry and intellectual disability services. This hospital is the largest of the four level two hospitals providing mental health services for the Western Cape.

3.5 Study Population

Brink (2018), defines a study population as all the elements in each situation that meet the inclusion criteria. The study population for this study included all the professional nurses and community service nurses working on day and night duty at the psychiatric hospital proposed for the study. The target population included nurses from different races, gender, religions, and who originated from various backgrounds. The population size was N=114.

3.6 Sampling

A sample is a subset of available elements chosen for a specific study (Brink, 2018). The population for this study is relatively small, therefore all-inclusive sampling was used. The sample size was therefore n=114.

3.7 Inclusion and exclusion

3.7.1 Inclusion Criteria: All professional nurses and community service nurses on day and night shift who consented to participate in the study, and who could read and write in English, as the questionnaire was in English, were selected for the study.

3.7.2 Exclusion Criteria: All nurses who were on leave, such as maternity leave, annual leave, and sick leave, at the time of data collection, were excluded.

3.8 Data Collection instrument

The instrument is an adapted instrument which was developed for a study conducted by Hunt and Rothman (2006). The study focused on college students' mental models for recognizing anorexia and bulimia nervosa. The questionnaire originally consisted of 3 sections each with an over aching question and sub-questions which followed. The tool was adapted by Winer in 2014, who added a fourth section to survey participant's demographic data. For this study, the tool consists of 4 sections as it was Adapted by Winer in 2014 (Appendix 1) namely:

Section I: Comprises 6 questions on demographic data.

Section II: Comprises 4 questions assessing nurses' knowledge on development of eating disorders. Question 1 has yes/no questions; question 2 has a 9 point Likert Scale where 1 is Yes

and 9 is No. This was reversed to 1 is No and 9 is Yes; , question 3 also has a 9 point Likert Scale where 1 is None and 9 is a lot; and question 4 has 3 items on a 9 point Likert Scale where 1 is Very little and 9 is a lot.

Section III: Comprises 5 questions assessing the nurse's knowledge on physical consequences of eating disorders. Question 1 and 2 has a 9-point Likert Scale where 1 is Not at all Likely and 9 is Very Likely; Questions 3, 4 and 5 each have 22 items consisting of Yes (3)/No (1)/Don't know (2).

Section IV: Assesses the nurse's attitudes towards eating disorders in clinical practice and has 5 questions. Question 1 has a 9-point Likert scale where 1 is Unwilling) and 9 is Willing, (If Unwilling to check all the reasons that apply). Question 2 has 4 questions consisting of a 9-point Likert scale where 1 is Not at all likely and 9 is Very likely. Question 3 has 6 questions consisting of a 9-point Likert scale where 1 is Disagree and 9 is Agree. Question 4 and 5 has check/tick appropriate answer questions.

The Cronbach Alpha for the tool could not be found in the publications in which the original as well as the adapted questionnaires were used. An email requesting permission to use the tool was sent the authors of the original and adapted questionnaires (Appendix 6). A request for the reliability score of the original and adapted questionnaires was also made. The questionnaire took respondents approximately 15 to 20 minutes to complete.

3.9 Validity and Reliability

Brink (2018), defined validity as the extent to which a test measures what it declares to measure. The adapted questionnaire proposed for use in this study, was reviewed by the study supervisor to establish content validity. Content validity was ensured by making use of a questionnaire that

was compiled from 2 pre-existing used questionnaires. A pilot study was also conducted to ensure validity. As illustrated in the table 3.1 below, content validity was established by ensuring that the questions answered the research objectives.

Table 3.1: Content Validity of the Questionnaire

Objectives	**Questions**
1. To describe professional nurses' knowledge about eating disorders	Sections II and III
2. To describe the nurse's attitudes towards care of patients with eating disorders	Section IV

Reliability is the extent to which measures are free from error and therefore produce a constant outcome, in other words reliability is the consistency of a measurement produced by the instrument (Brink, 2018). Cronbach's alpha coefficient test was used to establish reliability of the instrument. A Cronbach's coefficient alpha of ≥.70 is accepted (Lin et al., 2015). The questionnaire was pre-tested on 5 professional nurses at the hospital included in the study. The Cronbach Alpha from the pre-test study was established with the help of a statistician who assisted with data analysis of the pre-test study. After the data analysis of the pre-test was completed the Cronbach's Alpha was found to be 0.828. Therefore, there is a high level of internal consistency. According to literature the Cronbach's Alpha from the pre-test study conducted met the accepted Cronbach Alpha. The completed pre-test questionnaires were therefore included in the study as there were no changes required on the questionnaire.

3.9.1 Pretesting of the Questionnaire

A total of 5 professional nurses at the hospital included in the study, who met the inclusion criteria, were selected randomly to complete the questionnaire for the pre-test. The study was explained to the participants and an information sheet consisting of the following was given to each of the participants: study title, study aim, benefits of participation, confidentiality and anonymity of the participants details, risks associated with stud and all the questions that were asked by the participants were answered. All participants were asked to give written consent in agreement to participate voluntarily in the study. It was explained to the participants that they would form part of the main study if no changes were required on the questionnaire after the pre-test. The pre-test questionnaires were hand delivered by the researcher and collected at a later stage after they were completed. The participants were asked to complete the questionnaires during their tea break to avoid interference with service provision. The participants were asked to assess the questionnaire for ambiguity and to measure the time it took them to complete the questionnaire. They agreed that the questionnaire took them 15 to 20 minutes to complete the questionnaire. No changes were made to the questionnaire, and the responses of the pre-test participants were included in the main study.

3.10 Data collection process

After receiving approval from the University Senate High Degrees Committee, BMREC and the Hospital Review Board the researcher arranged with the hospital manager the dates and times when participant briefing, and data collection will commence.

There are different methods of collecting data. The researcher hand delivered the questionnaires and collected them at a later stage. This method has helped increase the response rate due to

personal contact. The researcher was able to explain the study and answer any questions within a short period of time. The researcher tried not to disrupt service provision and therefore accessed the participants during the lunch time. The researcher accessed the night shift staff at the start of the shift. A hard copy of the questionnaire was given to the participants after the researcher fully explained the study and the participants signed the consent form in agreement to participate in the study. Participants were asked to complete the questionnaire and then place it in a secure box provided by the researcher and kept in the nurse's station. The researcher followed up twice a week on the completion of the survey to ensure an acceptable response rate. The questionnaire package included the information sheet, informed consent form and the questionnaire. A total of 114 questionnaires were distributed and 89 questionnaires were fully completed, giving a response rate of 78%.

3.11 Data Analysis

The data was captured on an excel spreadsheet and were imported into the SPSS software for analysis. The data were analysed using SPSS version 28. Descriptive statistics was used to present the data. Socio-demographic variables of the respondents were presented mainly by using simple frequencies and percentages, and only the age was presented using mean and standard deviation. The other sections of the questionnaire were presented using mainly frequencies, mean and standard deviation. The average mean of the knowledge on physical consequences was computed at mean of 7.4 and the average means of attitude towards the care of patient in clinical practice was 6.4. On the knowledge of physical complication of anorexia nervosa, bulimia nervosa and binge disorders, the correct responses under the three eating disorders (anorexia nervosa, bulimia nervosa and binge disorders) were coded as *knowledgeable*, incorrect responses were coded as

misinformed while the 'I don't know' option were regarded as *lack of knowledge*. The responses from the respondents were rated in descending order, from the most knowledgeable to the least knowledgeable.

3.12 Research Ethics

The researcher is liable for conducting research in an ethical manner, with the Nuremburg Code and the Declaration of Helsinki providing the foundation for numerous ethical research guidelines (Brink et al., 2012). The proposal was submitted for approval by the University Senate Higher Degrees Committee and ethics approval from the Biomedical Research Ethics Committee (BMREC. The study was approved by UWC BMREC, Ethics Reference number; BM20/10/26) (Appendix 4). Permission to conduct the study was sought from the Western Cape Department of Health and the facility manager at the hospital included in the study. The Western Cape Department of Health and the Hospital Review Board granted permission for the researcher to conduct this study - Reference number; WC 202110_017 (Appendix 5).

3.12.1 Informed Consent

The researcher must take care to avoid coercing the participant (Brink, 2018). Participants were given a full explanation about the study before consenting to participate in the study. A participant information sheet containing the following information: study title, study aim, benefits of participation, confidentiality and anonymity of the participants details, risks associated with study, and the researcher's contact details should they have had any questions when completing the questionnaire (Appendix 2 and 3). All the questions that participants asked about the study were answered.

3.12.2 Anonymity and Confidentiality

Confidentiality and anonymity were maintained throughout the study and codes instead of names and surnames were reflected on the questionnaires. The participant's personal identification was kept anonymous, and the personal data on the consent form was not included in the data captured.

The questionnaires were locked in a cupboard to which only the researcher and supervisor had access for security reasons and will be kept for a period of 5 years. Data on computers were stored using password protected files to which only the researcher and supervisor has access. After five years the hard copy questionnaires will be shredded, and the electronic files will be deleted.

3.12.3 Respect for Persons

Due to their independence, participants have the right to self-determination (Brink, 2018). The respondents in this study were given a clear explanation regarding their right to choose to participate in the study or not, without being penalised or lose any benefits to which they otherwise qualify. Participants' right to privacy and the extent to which their private information will be shared was respected by the researcher. The researcher applied the principle of autonomy, by obtaining informed consent, maintaining privacy, anonymity and confidentiality and they were told that they can withdraw from the study at any given time without providing a reason. Participation in this study was therefore voluntary and the researcher did not reward the participants for their participation in this study. All the participants were treated with respect and dignity throughout the interactions had with them.

3.12.4 Ethical principle of Beneficence

The researcher ensured that there was no harm and discomfort for participants. There may have been some risks from participating in this research study, some of the question may have stirred up some emotions. All human interactions and talking about self or others carry some number of risks. The research was ready to minimize such risks and act promptly to assist participants if they experienced any discomfort, psychological or otherwise during the process of data collection - however, this did not occur. An appropriate referral using the intuitional support processes was on standby. The researcher ensured that the questionnaire was fully explained to the participants prior to their participation.

3.12.5 Ethical principle of Justice

For this study the researcher ensured that all respondents that met the inclusion criteria and were willing to participate were all given a fair chance to participation. The researcher ensured that there was no discrimination based on age, gender, race, and ethnicity. They were fairly included as an all-inclusive sampling technique was applied for this study.

3.13 Summary

This chapter presented the methodology used in the study. The following were addressed: study approach and design, study setting, population, sampling, inclusion and exclusion criteria, data collection instrument, validity, and reliability, pretesting of the questionnaire, data collection process, data analysis and research ethics.

CHAPTER 4

RESULTS

4.1 Introduction

In this chapter the analysed results are presented together with the demographical data of the respondents. The results responded to the aim and objectives of the study which were as follows:

The aim of this study was to describe professional nurses' knowledge and attitudes towards care of patients with eating disorders. The main objectives of the study were to describe professional nurses' knowledge about eating disorders and to describe the professional nurses' attitudes towards care of patients with eating disorders.

4.2 Sample realization and respondents' demographics

A total of 114 questionnaires were distributed and 89 were received and were completed in full, giving a response rate of 78%. The mean age of the respondents was 39.31, standard deviation 10.8 with the age ranging from 22-62 years. About three-quarter of the respondents 66 (74.2%) were female. Over three-fifths of the respondents 61 (68.5%), have not taken a class on eating disorders. Just under one-tenth of the respondents 7 (7.9%), suspect that they have had an eating disorder. None of the respondents have been diagnosed or treated for an eating disorder (Table 4.1).

Table 4. 1: Socio-demographics

Items	Responses
Age	Mean 39.31, sd10.8 Range: 22-62
Gender Female Male	 66 (74.2%) 23 (25.8%)
Taken a course on eating disorders No, I have not Yes, not focused on eating disorders Yes, specifically focused	 61 (68.5%) 19 (21.3%) 9 (10.1%)
Have you ever been diagnosed with an eating disorder? Yes	 0 (%)
Have you ever been treated for an eating disorder? Yes	 0 (%)
Do you suspect you have/have had an eating disorder? Yes	7 (7.9%)

4.3 Objective 1:

4.3.1 Professional nurses' knowledge about eating disorders

Questionnaires used to assess professional nurses' knowledge about eating disorders included (i) Opinion on the development of eating disorders and (ii) Knowledge on physical consequences of eating disorders.

4.3.2 Development of eating disorders

A total of 33 (37.1%) of the respondents reported that they 'could tell that someone they had just met had an eating disorder'; 22 (24.7%) of the respondents reported that 'eating disorders are treatable' and 65 (73.0%) reported that people have 'somewhat to a lot' of control over the

development of an eating disorder. A total of 76 (85.4%) reported that family enmeshment is a factor that has 'somewhat to a lot' of influence in the development of eating disorders (Table 4.2).

Table 4.2: Development of Eating Disorders

Statements	**Responses**
Do you think that you could tell whether someone you just met has an eating disorder? Yes	33 (37.1%)
Do you think eating disorders are treatable? Yes	22 (24.7 %)
How much control do you think a person has over the development of an eating disorder? None to a little Somewhat to a lot	 24 (27.0%) 65 (73.0%)
Family enmeshment influencing development of eating disorder None to a little Somewhat to a lot	13 (14.6%) 76 (85.4%)
Puberty influencing development of eating disorder None to a little Somewhat to a lot	17 (19.1%) 72 (80.9%)
Genetics influencing development of eating disorder None to a little Somewhat to a lot	28 (31.5%) 61 (68.5%)

4.3.3 Knowledge of development of eating disorders

The questionnaire assessed the likelihood of eating disorders causing physical damage to the body, and fatality related to three types of eating disorders - anorexia nervosa, bulimia nervosa and binge eating disorder.

In assessing the likelihood of eating disorders causing physical damage to the body, majority of the respondents (86, 96.6%) reported 'eating disorders are somewhat to very likely to cause physical damage to the body' with rating 8.03 (1.5). On the fatality of the three eating disorders, anorexia was reported as 'somewhat to very likely' (83, 93.3%) and binge 'somewhat to very

likely' 72 (80.9%) to cause fatality. The overall average mean of the scale was 7.4 (>5) which depicts that they were knowledgeable about the physical damage caused by eating disorders (Table 4.3).

Table 4.3: Knowledge of physical damage caused by eating disorders

Statements	Very likely	Mean (Sd)
How likely are eating disorders to cause physical damage to the body?		
Not at all to a little	3 (3.4%)	8.03 (1.5)
Somewhat to very likely	86 (96.6%)	
Fatality of anorexia		
Not at all to a little	6 (6.7%)	7.75 (1.8)
Somewhat to very likely	83 (93.3%)	
Fatality of bulimia		
Not at all to a little	7 (7.9%)	7.19 (1.9)
Somewhat to very likely	82 (92.1%)	
Fatality of binge		
Not at all to a little	17 (19.1%)	6.45 (2.3)
Somewhat to very likely	72 (80.9%)	

Average mean: 7.4

4.3.4 Physical complications of Anorexia Nervosa

Twenty-two (22) complications were used to assess respondents' knowledge of physical complications of anorexia nervosa. presented. The most reported complications were muscle wasting/weakness 81 (91.0%), fatigue 79 (88.8%) and anaemia 76 (85.4%), while the least reported complications were electrolyte imbalance 7 (7.9%), gastroesophageal reflux disorder 13 (14.6%) and cavities 13 (14.6%) (Table 4.4).

Table 4.4: Knowledge of physical complications of Anorexia Nervosa

Statements	Knowledgeable	Misinformed	Lack of knowledge
Muscle wasting/weakness	81 (91.0%)	5 (5.6%)	3 (3.4%)
Fatigue	79 (88.8%)	6 (6.7%)	4 (4.5%)
Anemia	76 (85.4%)	4 (4.5%)	9 (10.1%)
Heart Arrythmias	65 (73.0%)	7 (7.9%)	17 (19.1%)
Always cold	63 (70.8%)	12 (13.5%)	14 (15.7%)
Low blood pressure	61 (68.5%)	17 (19.1%)	11 (12.4%)
Insomnia	60 (67.4%)	15 (16.9%)	14 (15.7%)
Obesity	59 (66.3%)	22 (24.7%)	8 (9.0%)
Constipation	55 (61.8%)	23 (25.8%)	11 (12.4%)
High cholesterol	48 (53.9%)	27 (30.3%)	14 (15.7%)
Lanugo	45 (50.6%)	27 (30.3%)	17 (19.1%)
High blood pressure	42 (47.2%)	27 (30.3%)	20 (22.5%)
Bloating	37 (41.6%)	38 (42.7%)	14 (15.7%)
Type II Diabetes	36 (40.4%)	34 (38.2%)	19 (21.3%)
Osteoporosis	17 (19.1%)	58 (65.2%)	14 (15.7%)
Hair loss	16 (18.0%)	63 (70.8%)	10 (11.2%)
Broken blood vessels in Eye/Face	16 (18.0%)	55 (61.8%)	18 (20.2%)
Menstrual irregularities/infertility	14 (15.7%)	66 (74.2%)	9 (10.1%)
Cardiovascular disease	13 (14.6%)	67 (75.3%)	9 (10.1%)
Cavities	13 (14.6%)	61 (68.5%)	15 (16.9%)
Gastroesophageal reflux disorder	13 (14.6%)	60 (67.4%)	16 (18.0%)

Electrolyte imbalance	7 (7.9%)	76 (85.4%)	6 (6.9%)

4.3.5 Knowledge of Physical Complications of Bulimia Nervosa

Twenty-two (22) complications were also used to assess respondents' knowledge of physical complications of bulimia nervosa. The most reported complications were electrolyte imbalance 74 (83.1%), gastroesophageal reflux disorder 74 (83.1%) and cavities 73 (82.0%); while the least reported complications were heart arrythmias 13 (14.6%), fatigue 14 (15.7%) and constipation 15 (16.9%) (Table 4.5).

Table 4.5: Physical complications of Bulimia Nervosa

Statements	**Knowledgeable**	**Misinformed**	**Lack of knowledge**
Electrolyte imbalance	74 (83.1%)	11 (12.4%)	4 (4.5%)
Gastroesophageal reflux disorder	74 (83.1%)	10 (11.2%)	5 (5.6%)
Cavities	73 (82.0%)	12 (13.5%)	4 (4.5%)
Bloating	67 (75.3%)	12 (13.5%)	10 (11.2%)
Menstrual irregularities/infertility	62 (69.7%)	17 (19.1%)	10 (11.2%)
Broken blood vessels in Eye/Face	47 (52.8%)	23 (25.8%)	19 (21.3%)
Always cold	38 (42.7%)	34 (38.2%)	17 (19.1%)
Low blood pressure	37 (41.6%)	36 (40.4%)	16 (18.0%)
Anemia	33 (37.1%)	47 (52.8%)	9 (10.1%)
Osteoporosis	29 (32.6%)	44 (49.4%)	16 (18.0%)
Hair loss	29 (32.6%)	39 (43.8%)	21 (23.6%)

Lanugo	29 (32.6%)	35 (39.3%)	25 (28.1%)
Obesity	28 (31.5%)	54 (60.7%)	7 (7.9%)
Muscle wasting/weakness	27 (30.3%)	55 (61.8%)	7 (7.9%)
High cholesterol	26 (29.2%)	51 (57.3%)	12 (13.5%)
Type II Diabetes	26 (29.2%)	50 (56.2%)	13 (14.6%)
High blood pressure	25 (28.1%)	51 (57.3%)	13 (14.6%)
Insomnia	18 (20.2%)	64 (71.9%)	7 (7.9%)
Cardiovascular disease	16 (18.0%)	66 (74.2%)	7 (7.9%)
Constipation	15 (16.9%)	67 (75.3%)	7 (7.9%)
Fatigue	14 (15.7%)	71 (79.8%)	4 (4.5%)
Heart Arrhythmias	13 (14.6%)	61 (68.5%)	15 (16.9%)

4.3.6 Physical complications of Binge Eating Disorder

Twenty-two (22) complications were used to assess respondents' knowledge of physical complications of binge eating disorder. The most reported complications were cardiovascular disease 72 (80.9%) and Type II Diabetes 72 (80.9%) and Obesity 69 (77.5%) and high blood pressure 69 (77.5%); while the least rated complications were insomnia 12 (13.5%), gastroesophageal reflux disorder 13 (14.6%) and heart arrhythmias 16 (18.0%) (Table 4.6).

Table 4.6: Knowledge of physical complications of Binge Disorder

Statements	Knowledgeable	Misinformed	Lack of knowledge
Cardiovascular disease	72 (80.9%)	8 (9.0%)	9 (10.1%)
Type II diabetes	72 (80.9%)	7 (7.9%)	10 (11.2%)

Obesity	69 (77.5%)	11 (12.4%)	9 (10.1%)
High blood pressure	69 (77.5%)	12 (13.5%)	8 (9.0%)
High cholesterol	66 (74.2%)	13 (14.6%)	10 (11.2%)
Constipation	61 (68.5%)	19 (23.1%)	7 (7.9%)
Always cold	46 (51.7%)	26 (29.2%)	17 (19.1%)
Anemia	46 (51.7%)	34 (38.2%)	9 (10.1%)
Low blood pressure	38 (42.7%)	39 (43.8%)	12 (13.5%)
Muscle wasting/weakness	33 (37.1%)	47 (52.8%)	9 (10.1%)
Lanugo	33 (37.1%)	37 (41.6%)	19 (21.3%)
Hair loss	27 (30.3%)	43 (48.3%)	19 (21.3%)
Menstrual irregularities/infertility	23 (25.8%)	53 (59.6%)	13 (14.6%)
Osteoporosis	22 (24.7%)	46 (51.7%)	21 (23.6%)
Broken blood vessels in the eye/face	22 (24.7%)	44 (49.4%)	23 (25.8%)
Fatigue	19 (21.3%)	65 (73.0%)	5 (5.6%)
Bloating	18 (20.2%)	64 (71.9%)	7 (7.9%)
Cavities	17 (19.1%)	68 (74.6%)	4 (4.5%)
Electrolyte imbalance	17 (19.1%)	64 (71.9%)	8 (9.0%)
Heart arrhythmias	16 (18.0%)	61 (68.5%)	12 (13.5%)
Gastroesophageal reflux disorder	13 (14.6%)	13 (14.6%)	7 (7.9%)
Insomnia	12 (13.5%)	64 (71.9%)	13 (14.6%)

4.4 Objective 2:

4.4.1 Professional nurse's attitude towards care of patients with eating disorders

In assessing the attitude towards care of patients with eating disorders, questionnaires that assessed (i) the attitude towards eating disorder were used. The questionnaire measured three domains including a) willingness to treat an individual with an eating disorder, b) likelihood of preparedness/unpreparedness for the treatment of individual with eating disorder and c) degree of agreement with how difficult it is to treat individuals with eating disorders.

The attitude towards care of patients with eating disorders assessed (ii) Healthcare professionals who should be included in an eating disorder treatment team and (iii) what the respondents would do for a suspected client having eating disorder.

4.4.2 Attitudes towards eating disorders

Three main areas with 11 questions were used to assess nurse's attitude towards eating disorders, On their willingness to treat eating disorders, the most rated statements were 'would be willing to treat an individual with an eating disorder' 7.1 (2.59); 'direct them to appropriate treatment facilities/practitioners' 7.1 (2.13); and 'I would feel a sense of personal satisfaction if I treated individuals with eating disorders' 6.6 (2.40). The overall average mean of the scale was 6.4 (>5) which is a positive on attitude towards eating disorders in clinical practice (Table 4.7).

Table 4.7: Attitudes towards eating disorders

Statements	Frequency	Mean (Sd)
How willing would you be to treat an individual with an eating disorder? Unwilling to slightly willing Somewhat willing to Willing	 15 (16.9%) 74 (83.1%)	 7.1 (2.59)
Direct them to appropriate treatment facilities/practitioners Not at all likely to little likely Somewhat likely to Very Likely	 9 (10.1) 80 (89.1%)	 7.1 (2.13)
Offer appropriate nutritional advice/support as part of treatment team Not at all likely to little likely Somewhat likely to Very Likely	 13 (14.6%) 76 (85.4%)	 6.6 (2.42)
Recognized symptoms of an eating disorder Not at all likely to little likely Somewhat likely to Very Likely	 15 (16.9%) 74 (83.1)	 6.4 (2.33)
Explain the treatment process for eating disorder Not at all likely to little likely Somewhat likely to Very Likely	 21 (23.6%) 68 (76.4%)	 5.9 (2.27)
I would feel a sense of personal satisfaction if I treated individuals with eating disorders Disagree to agree a little Agree somewhat to Agree	 14 (15.7%) 75 (84.3%)	 6.6 (2.40)
I would feel a sense of personal satisfaction if I treated individuals with eating disorders Disagree to agree a little Agree somewhat to Agree	 14 (15.7 %) 75 (84.3%)	 6.6 (2.40)
Individual with eating disorders is difficult to treat Disagree to agree a little Agree somewhat to Agree	 11 (12.4%) 78 (87.6)	 6.5 (2.25)
A registered dietitian should be able to diagnose an eating disorder by him/herself	17 (19.1%)	6.6 (2.60)

Disagree to agree a little Agree somewhat to Agree	72 (80.9%)	
Individuals with eating disorders do not want treatment Disagree to agree a little Agree somewhat to Agree	19 (21.3%) 70 (78.7)	5.9 (2.42)
Individuals with eating disorders are time consuming to treat Disagree to agree a little Agree somewhat to Agree	25 (28.1%) 64 (71.9%)	5.8 (2.56)
I would feel uncomfortable treating individuals with eating disorders Disagree to agree a little Agree somewhat to Agree	46 (51.7%) 43 (48.3%)	4.4 (3.06%)

Average mean: 6.4

4.4.3 Healthcare professionals to be included on eating disorder treatment team

In assessing which health professionals should be included in an eating disorder treatment team, majority of the respondents reported that therapist/psychologist 83 (93.3%) and registered dietitian 82 (92.1%) should be included in the team, while about half of the respondents 47 (52.8%) reported dentist as the least required professional to be included in the team (Table 4.8).

Table 4.8: Healthcare professionals to be included in an eating disorder team

Professional	**Frequency (%)**
Therapist/psychologist	83 (93.3%)
Registered dietitian	82 (92.1%)
Psychiatrist	77 (86.5%)
General practitioner	75 (84.3%)
Family therapist	56 (62.9%)

Dentist	47 (52.8%)

4.4.4 What would be done for a suspected client having eating disorders?

In assessing what would be done for a client suspected of having an eating disorder; about four-fifths of the respondents 72 (80.9%) reported 'refer to a psychiatrist' and same reported 'refer to a therapist/psychologist', while the least reported were 'treat them myself for only the issue they came to see me for' 15 (16.9%) and 'refer to another registered nurse' 18 (20.2%) (Table 4.9).

Table 4.9: What would be done for a suspected client having eating disorder?

Statements	**Frequency (%)**
Refer to a psychiatrist	72 (80.9%)
Refer to a therapist/psychologist	72 (80.9%)
Educate them on eating disorders	69 (77.5%)
Advise them to contact a GP	50 (56.2%)
Diagnose them with an eating disorder	22 (24.7%)
Treat them myself for an eating disorder	18 (20.2%)
Refer to another RN (Registered nurse)	18 (20.2%)
Treat them myself for only the issue they came to see me for	15 (16.9%)

4.5. Summary

In this chapter, the results of the survey on professional nurses' knowledge and attitudes towards care of patients with eating disorders were presented in detail. The respondents' demographics were also presented to provide more context to the results. The results are discussed in chapter 5.

CHAPTER 5

DISCUSSION OF RESULTS

5.1 Introduction

This chapter presents a discussion of the results, according to the objectives, as presented in chapter 4. Literature is used as a control and of the contribution that this study makes to the existing body of knowledge. The aim of the study was to describe professional nurse's knowledge and attitudes towards care of patients with eating disorders. The discussion of the result is grounded on the objectives which were as follows:

- To describe professional nurse's knowledge about eating disorders.
- To describe the professional nurse's attitudes towards care of patients with eating disorders.

5.2 Demographic data of respondents

Analysis of the demographic data confirms the dominance of females in the nursing profession (Ndou & Moloko-Phiri, 2018) which also spills over into nursing education. A total of 61 (68.5%) respondents indicated that they have not taken a class on eating disorders. However, considering that the respondents work in a mental health hospital, and most would have at least a basic qualification in mental health, it is expected that eating disorders would have been part of the curriculum content. Majority of the respondent (92.1%) did not suspect having an eating disorder which was supported by none of them indicating that they were diagnosed and treated for an eating disorder. This indicates that eating disorders are not a common disorder amongst the professional

nurses at the hospital included in the study, which had potential to affect their attitude towards treating patients with eating disorders.

5.3 Objective 1: Professional nurse's knowledge about eating disorders

The study found that respondents were knowledgeable about the physical damage caused by eating disorders 7.4 (>5). This is like a study conducted by Murray (2020) this review article provided an overview of treatment related research findings published in eating disorders; the journal of treatment and prevention during 2019 in the United State of America, that found that nurses had good knowledge of eating disorders. This is corroborated by another study cited by Seah, Tham, Kamaruzaman and Yobas (2018) where 75% of the nurse professionals had knowledge about the symptoms of Anorexia Nervosa.

However, Seah et al. (2018), in their study, identified 21 articles, including 12 quantitative, 12 qualitative and 2 mixed method papers, found the contrary, that 88.9% of the reviewed papers reported that most of the respondents did not have knowledge of eating disorders and its management.

Physical complications of anorexia nervosa: The physical complications most reported by the respondents were muscle wasting/weakness 81 (91.0%) and fatigue 79 (88.8%).

Physical complications of bulimia nervosa: The complications most reported by the respondents were electrolyte imbalance 74 (83.1%), gastroesophageal reflux disorder 74 (83.1%) and cavities 73 (82.0%). Eating disorders have a great impact on the health of the individual as it contributes to electrolyte and gastrointestinal consequences and eventual death of the sufferer (Hawkins-Elder,

2020). Interestingly in a study by Reas et al. (2021), that investigated health professionals' beliefs and attitudes toward anorexia nervosa, bulimia nervosa, and binge eating disorder, most respondents agreed and strongly agreed, 65% and83% respectively, that binge eating, bulimia nervosa and anorexia nervosa are illnesses with serious psychological implication other than physical. With regards to cavities, Strumia (2013) found that saliva production and composition are impacted, and this change, is brought on by electrolyte imbalance, may reduce the power of the saliva to buffer and remineralize, leaving teeth more vulnerable to acid attack saliva from vomiting patients has a lower pH than normal, which erodes dental enamel (Strumia, 2013).

Physical complications of binge disorder: The complications most reported by the respondents were cardiovascular disease 72 (80.9%) and type II diabetes 72 (80.9%). This is like the findings of a study by Cain, Buck, Fuller- Tyszkiewicz and Krug (2017) in Australia that found reports that cardiovascular overload and Type II Diabetes are linked with binge disorders. Binge eating disorder is a severe mental disorder which grant to high levels of distress, impairs functioning of an individual and is associated with serious physical complications (Cain et al., 2017). Given that obesity and BED frequently coexist, those who have BED are more likely to experience obesity-related medical consequences, such as type II diabetes and cardiovascular diseases (Cain et al., 2017).

5.4 Objective 2: Nurse's attitude towards care of patients with eating disorders

Attitudes towards eating disorders: The study revealed that nurses had a positive attitude towards eating disorders in clinical practice 6.4 (>5). The highest rated statements were 'would be willing to treat an individual with an eating disorder 7.1 (2.59), and 'direct them to appropriate

treatment facilities/practitioners 7.1 (2.13). This is contrary to a study conducted by McNicholas, Connor, O'Hara and McNamara (2016), in Ireland that found that health professionals do not have a positive attitude toward the clients with eating disorders, unlike the way they had with other psychological or physical conditions. In a study conducted in the Nordic health professionals in Scandinavia to understand health professionals' belief and attitudes towards anorexia nervosa, bulimia nervosa and binge eating disorder, the study revealed that that close to over half of the respondents (56.3%) had positive attitudes as they showed boldness to interact with an individual with eating disorders (Reas, Isomma, Solhaug Gulliksen & Levallius, 2021).

Healthcare professional's inclusion on treatment team: Majority of the respondents 83 (93.3%) reported that therapist/psychologist, as health professionals, should be included on the eating disorder treatment team. This concurs with a study amongst nurses in the United kingdom that revealed the importance of psychological wellness as an essential link to the process of rehabilitation of an individual with eating disorders (Murray, 2020).

In this present study, most of the respondent's rated the registered dietitian 82 (92.1%) as a health professional to be included in the team for the management of patients with eating disorders. A study by Gambaro, Prosperini, D' Andrea, Biroli, Rossi, Bergamasci, Acappatura, Fuliano, Binda, Chieppa, Gramaglia and Zeppegno (2015), found that the dietician was listed as one of the most educated about the eating disorders. The least chosen healthcare professional by the participants was the dentist. The participants may need evidence-based information regarding the importance of the dentist for the care of patients with eating disorders because oral health is significantly impacted by eating disorders. The general dentist should be aware of the subtle changes in the mouth since they could be the first signs of a serious psychological disorder (Naidoo, 2015).

Assistance for a suspected client: About four-fifths of the respondents 72 (80.9%) reported on what would be done for a suspected client having eating disorder as 'refer to a psychiatrist' as well as 'refer to a therapist/psychologist'. This is similar to a study by Salzmann-Erikson and Dahlen (2017), where psychiatrists were identified to be most knowledgeable compared to others when it comes to determining the needs of individuals with eating disorders. Reas et al., (2021) stated that health professionals who do not specialize and have adequate knowledge in the field of mental health/psychiatry may not be able to form a positive opinion and attitude towards the management of individuals with eating disorders. The attitude of the nurse towards the client with eating disorders is dependent on the relationship that would be created between the health care provider and the mental health care user when it comes to meeting the health need of the patient (Salzmann-Erikson & Dahlen, 2017).

5.5. Summary

This chapter discussed the main results of this research in context of existing literature. The study found that most of the respondents had good knowledge of eating disorders, although some of them did not know the physical complications of eating disorders. The respondents also had positive attitudes towards the care of patients with eating disorders, even though some of them indicated that it is time consuming to treat patients with eating disorders, and some indicated that they were unwilling to treat patients with eating disorders as it is difficult to deal with eating disorders.

CHAPTER 6

CONCLUSION, LIMITATIONS AND RECOMMENDATIONS

6.1 Introduction

This is the final chapter of this study which provides a summary of the study which aimed to describing the professional nurse's knowledge and attitudes towards care of patients with eating disorders. Data was collected using an adapted instrument developed by Hunt and Rothman (2006). The chapter consists of an outline of the key findings of the study per study objectives, limitations of the study and recommendations.

6.2 Key findings

The aim of this study was to describe the professional nurse's knowledge and attitudes towards care of patients with eating disorders. Overall, this study found that respondents were knowledgeable about eating disorders and had positive attitudes towards the care of patients with eating disorders.

Objective 1: To describe professional nurse's knowledge about eating disorders.

More than half of the participants reported that patient has control over the development of eating disorders, three quarter indicated that among the factors influencing eating disorders, family enmeshment has the most influence on the development of eating disorders.

Most of the respondents indicated that eating disorders are likely to cause physical damage to the body; they indicated that eating disorders can be fatal and rated anorexia nervosa as the eating disorder most likely to result in fatality. This indicates that in this study professional nurses were

knowledgeable about the development of eating disorders, complications, and fatality with an overall mean 7.4 (>5).

Objective 2: To describe the professional nurse's attitudes towards care of patients with eating disorders.

Most participants indicated that they are willing to treat individuals with eating disorders and suggested that they knew the importance of referring the patients to appropriate facilities or practitioners. This indicates that they are aware of the importance of treating eating disorders and that the patient with eating disorders require appropriate care. Some of the nurses indicated that treating patients with eating disorders is time consuming, and some of them indicated that patients with eating disorder do not want treatment. Even though these nurses indicated these negative attitudes towards caring for patients with eating disorders, many of them had positive attitudes towards care of patients with eating disorders. Therefore, most of the nurses in this study had a positive attitude towards the care of patients with eating disorders.

6.3 Limitations of the study

The research results are based on respondents from one psychiatric hospital in the Western Cape and only focused on professional nurses. While the responses were positive overall, the result should be interpreted accordingly, and should not be generalized to other psychiatric institutions. The sample size for this study was relatively small as one hospital was used, and the study only focused on professional nurses.

6.4 Recommendations

Recommendations for nursing education, clinical practice and for research are proposed as follows:

6.4.1 Recommendations for nursing education

To close the gap in knowledge, higher education institutions should ensure that their undergraduate programme and Postgraduate Diploma in Mental Health Nursing have learning outcomes that address eating disorders. This will contribute to ensuring that professional nurses acquire the required knowledge and develop positive knowledge and attitudes towards treating patients with eating disorders. Where appropriate, continuous professional development programmes should be developed and offered for professional nurses to be kept abreast of the latest evidence on the subject. Inservice training should be conducted to keep the nurses updated. Staff can also be rotated to the wards where eating disorders are managed so that they learn new knowledge and skills that may help them develop new attitudes towards the care of patients with eating disorders.

6.4.2 Recommendation for clinical placement

In clinical practice it is important that nurses receive in-service training, especially those working with patients with eating disorders. Nursing students rotating through clinical facilities for work integrated learning should be exposed to patients with eating disorders so that they develop appropriate knowledge, skills, and attitudes.

6.4.3 Recommendations for research

In this study it was identified that there is a shortage of studies about eating disorders in South Africa. More studies should be conducted using both quantitative and qualitative approaches and across different population groups. This will contribute to the limited body of literature in South Africa on eating disorders.

6.5 Conclusion

This study aimed at describing professional nurse's knowledge and attitudes towards care of patients with eating disorders. The analysis of this study strongly illustrates that the respondents from the hospital that was utilised for this study are knowledgeable about an have positive attitudes towards care of patients with eating disorders.

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8. APPENDICES

APPENDIX 1: Questionnaire

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SECTION I. Demographics

1. Age: ……

Circle the applicable answer:

2. Gender: Female / Male

3. Have you taken a course on eating disorders?

_____ Yes, I have taken a class specifically focused on eating disorders.

_____Yes, I have taken a class that was not focused on eating disorders, but I learned a little about them in one of my classes.

_____ No, I have not taken a class on eating disorders.

4. Have you ever been diagnosed with an eating disorder? (Tick one) Yes----- No-----

5. Have you ever been treated for an eating disorder?

Yes----- No-----

6. Do you suspect you have/have had an eating disorder?

Yes----- No-----

SECTION II. Development of Eating Disorders

We want to learn about your opinions on the development of eating disorders.

1. Do you think that you could tell whether someone you just met has an eating disorder?

   (Tick one)

Yes-----No-----

2. Do you think eating disorders are treatable? (Circle one)

YES 1 2 3 4 5 6 7 8 9 **NO**

3. How much control do you think a person has over the development of an eating disorder?

None 1 2 3 4 5 6 7 8 9 **A lot**

4. How much influence do you think the following factors have on the development of an eating disorder? (Circle one)

Genetics

Very Little 1 2 3 4 5 6 7 8 9 **A lot**

Puberty

Very Little 1 2 3 4 5 6 7 8 9 **A lot**

Family enmeshment

Very Little 1 2 3 4 5 6 7 8 9 **A lot**

SECTION III: Knowledge on physical consequences of eating disorders

1. How likely are eating disorders to cause physical damage to the body? (Circle one)

Not at all Likely 1 2 3 4 5 6 7 8 9 **Very Likely**

2. How likely are the following eating disorders to be fatal? (Circle one)

Anorexia:
Not at all Likely 1 2 3 4 5 6 7 8 9 **Very Likely**

Bulimia:
Not at all Likely 1 2 3 4 5 6 7 8 9 **Very Likely**

Binge Eating Disorder:
Not at all Likely 1 2 3 4 5 6 7 8 9 **Very Likely**

3. Which of the following are possible physical complications of Anorexia Nervosa?
Please tick the best response for each.

	Item	**Yes**	**No**	**Don't Know**
1	Always cold			
2	Anemia			
3	Bloating			
4	Broken blood vessels in eye/face			
5	Cardiovascular disease			
6	Cavities			
7	Constipation			
8	Type II Diabetes			
9	Electrolyte imbalance			
10	Fatigue			
11	Gastroesophageal reflux disorder			
12	Hair loss			
13	Heart Arrythmias			
14	High blood pressure			
15	Low blood pressure			
16	High cholesterol			
17	Insomnia			
18	Lanugo (fine, downy hair that covers the face and body)			
19	Menstrual irregularities/ infertility			
20	Muscle wasting/ weakness			
21	Obesity			
22	Osteoporosis			

4. Which of the following are possible physical complications of Bulimia Nervosa?
Please tick the best response for each.

	Item	**Yes**	**No**	**Don't Know**
1	Always cold			
2	Anemia			
3	Bloating			
4	Broken blood vessels in eye/face			
5	Cardiovascular disease			
6	Cavities			
7	Constipation			
8	Type II Diabetes			
9	Electrolyte imbalance			
10	Fatigue			
11	Gastroesophageal reflux disorder			
12	Hair loss			
13	Heart Arrythmias			
14	High blood pressure			
15	Low blood pressure			
16	High cholesterol			
17	Insomnia			
18	Lanugo (fine, downy hair that covers the face and body)			
19	Menstrual irregularities/ infertility			
20	Muscle wasting/ weakness			
21	Obesity			
22	Osteoporosis			

5. Which of the following are possible physical complications of Binge Eating Disorders? Please tick the best response for each.

	Item	**Yes**	**No**	**Don't Know**
1	Always cold			
2	Anemia			
3	Bloating			
4	Broken blood vessels in eye/face			
5	Cardiovascular disease			
6	Cavities			
7	Constipation			
8	Type II Diabetes			
9	Electrolyte imbalance			
10	Fatigue			
11	Gastroesophageal reflux disorder			
12	Hair loss			
13	Heart Arrythmias			
14	High blood pressure			
15	Low blood pressure			
16	High cholesterol			
17	Insomnia			
18	Lanugo (fine, downy hair that covers the face and body)			
19	Menstrual irregularities/ infertility			
20	Muscle wasting/ weakness			
21	Obesity			
22	Osteoporosis			

SECTION IV- Attitudes towards eating disorders in clinical practice.

1. How willing/ unwilling would you be to treat an individual with an eating disorder? (Circle one)

Unwilling 1 2 3 4 5 6 7 8 9 **Willing**

If you are unwilling, please check all the reasons that apply.

_____Too difficult

_____My personal history

_____Don't feel prepared.

_____Not interested in treating this population

_____Other (Please explain)

2. If an individual with an eating disorder came to you for treatment, how prepared/ unprepared would you be to:

Recognize symptoms of an eating disorder: (Circle one)

Not at all Likely 1 2 3 4 5 6 7 8 9 **Very Likely**

Explain the treatment process for eating disorders:

Not at all Likely 1 2 3 4 5 6 7 8 9 **Very Likely**

Direct them to appropriate treatment facilities/practitioners:

Not at all Likely 1 2 3 4 5 6 7 8 9 **Very Likely**

Offer appropriate nutritional advice/support as part of a treatment team:

Not at all Likely 1 2 3 4 5 6 7 8 9 **Very Likely**

3. Please indicate how much you agree or disagree with the following:

Individuals with eating disorders are difficult to treat.

Disagree 1 2 3 4 5 6 7 8 9 **Agree**

Individuals with eating disorders do not want treatment.

Disagree 1 2 3 4 5 6 7 8 9 **Agree**

Individuals with eating disorders are time consuming to treat.

Disagree 1 2 3 4 5 6 7 8 9 **Agree**

I would feel uncomfortable treating individuals with eating disorders.

Disagree 1 2 3 4 5 6 7 8 9 **Agree**

I would feel a sense of personal satisfaction if I treated individuals with eating disorders.

Disagree 1 2 3 4 5 6 7 8 9 **Agree**

A registered dietitian should be able to diagnose an eating disorder by him/herself.

Disagree 1 2 3 4 5 6 7 8 9 **Agree**

4. Please list healthcare professionals who should be included in an eating disorder treatment team. Please tick all that apply.

General Practitioner---------- Therapist/Psychologist---------

Psychiatrist---------- Dentist----------

Registered Dietitian---------- Family Therapist----------

5. If you strongly suspect a client has an eating disorder, what would you do?

Please tick all that apply.

_____ Refer to a psychiatrist.

_____ Advise them to contact a GP.

_____ Treat them myself for an eating disorder.

_____ Refer to another RN.

_____ Refer to a therapist/psychologist.

_____ Treat them myself for only the issue they came to see me for

_____ Educate them on eating disorders.

_____ Diagnose them with an eating disorder

APPENDIX 2: Information sheet

UNIVERSITY OF THE WESTERN CAPE
FAULTY OF COMMUNITY AND HEALTH SCIENCES

Private Bag X 17, Bellville 7535, South Africa

Tel: +27 21 9593900 Fax: 27 21 9593115

E-mail: 3376508@myuwc.ac.za

Project Title: Professional nurses at a Psychiatric Hospital in the Western Cape's knowledge and attitudes towards care of patients with eating disorders.

What is this study about?

This is a research project being conducted by Zusive Mhambi at the University of the Western Cape under the supervision of Professor F. Daniels. We are inviting you to participate in this research project because you are a Professional Nurse working at a psychiatric hospital and because the hospital has rotating shifts, you might be placed in a ward where there are patients with eating disorders. Your knowledge and attitudes towards this disorder is very important for the care of the patients and in the preparation of nurses in future. The aim of this research is to describe professional nurse's knowledge and attitudes towards care of patients with eating disorders.

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

You will be asked to read the information sheet regarding the study, the researcher will explain the study further and answer all the questions that you might have regarding the study at large then you will be asked to give written consent if you agree to participate in this study. You will then be asked to complete the questionnaire during your lunch time so that it does not interfere with service provision. The questionnaire will take you approximately 15 to 20 minutes to complete.

Would my participation in this study be kept confidential?

The researchers undertake to protect your identity and the nature of your contribution. Participants' right to privacy and the extent to which their private information will be shared will be respected by the researcher. Confidentiality and anonymity will be maintained throughout the study and codes instead of names and surnames will be reflected on the questionnaires to maintain anonymity and no other personal information will be asked that may identify you**.**

To ensure your confidentiality the collected data will be locked in a cupboard to which only the

researcher and supervisor will have access. Data on computers will be stored using password protected computer files to which only the researcher and supervisor will have access. Data will be destroyed after five years. No personal data will be asked or used such as name, surname and cell numbers in order to maintain confidentiality.

If we write a report or article about this research project, your identity will be protected.

What are the risks of this research?
There may be some risks from participating in this research study, some of the question may stir up some emotions. All human interactions and talking about self or others carry some number of risks. We 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 using the intuitional support processes will be arranged. A referral source such as ICAS, used by the institution, will be used where necessary.

What are the benefits of this research?
This research is not designed to help you personally, but the results may help the investigator learn more about the professional nurse's knowledge about and attitudes towards care of patients with eating disorders. We hope that, in the future, student nurses might benefit from this study through developing learning outcomes in programmes such as mental health nursing to improve the preparedness of nurses to care for patients with eating disorders.

Describe the anticipated benefits to science or society expected from the research, if any.
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 at all. If you decide to participate in this research, you may stop participating at any time. If you decide not to participate in this study or if you stop participating at any time, you will not be penalized or lose any benefits to which you otherwise qualify.

What if I have questions?
This research is being conducted by Zusive Mhambi at the University of the Western Cape under the supervision of Prof Daniels. If you have any questions about the research study itself, please contact Zusive Mhambi at: 5997 Mtamvuna Street, Mfuleni 7100 Tel 0719634351 Email Address 3376508@myuwc.ac.za. Or Prof Daniel @ fdaniels@uwc.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:

Prof. J. Chipps
Head of Department: School of Nursing
University of the Western Cape
Private Bag X17
Bellville 7535
jchipps@uwc.ac.za

Prof Anthea Rhoda
Dean of the Faculty of Community and Health Sciences
University of the Western Cape
Private Bag X17
Bellville 7535
chs-deansoffice@uwc.ac.za

BMREC/HSSREC
Research Development Office,
Tel: 021 959 4111
email: research-ethics@uwc.ac.za

This research has been approved by the University of the Western Cape's Biomedical Research Ethics Committee)
(REFERENCE NUMBER: 202008)

APPENDIX 3: Consent Form

UNIVERSITY OF THE WESTERN CAPE
FAULTY OF COMMUNITY AND HEALTH SCIENCES

Private Bag X 17, Bellville 7535, South Africa

Tel: +27 21 9593900 Fax: 27 21 9593115

E-mail: 3376508@myuwc.ac.za

Title of Research Project: Professional nurses at a Psychiatric Hospital in the Western Cape's knowledge and attitudes towards Care of patients with eating disorders

The study has been described to me so that I understand what I must do, and I agree to participate in the above research study. I am happy that any questions I asked have been answered. I understand that my name will not be used on any form and that I may stop participating in the study anytime I choose without giving a reason and that I will not be punished in any way for stopping.

___ I agree to participate in this study completing the questionnaire provided.
___ I do not agree to be participate in this study.

Participant's name…….

Participant's signature…….

Date……

Biomedical Research Ethics Committee
University of the Western Cape
Private Bag X17
Bellville
7535
Tel: 021 959 4111
email: research-ethics@uwc.ac.za

APPENDIX 4: Ethics certificate

UNIVERSITY of the WESTERN CAPE

Department of Institutional Advancement
University of the Western Cape
Robert Sobukwe Road
Bellville 7535
Republic of South Africa

60 YEARS of hope, action & knowledge

03 May 2021

Ms Z Mhambi
Sschool ofNursing
Faculty of Community and Health Sciences

Ethics Reference Number: BM20/10/26

Project Title: Professional nurses at a Psychiatric Hospital in the Western Cape's knowledge and attitudes towards care of patients with eating disorders

Approval Period: 29 April 2021 _ 29 April 2024

I hereby certify that the Biomedical Science Research Ethics Committee of the University of the Western Cape approved the scientific methodology and ethics of the above mentioned research project.

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

Please remember to submit a progress report annually by 30 November for the duration of the project.

Permission to conduct the study must be submitted to BMREC for record-keeping.

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

Ms Patricia Josias
Research Ethics Committee Officer

APPENDIX 5: Western Cape DOH letter of permission

Western Cape Government
Health

STRATEGY & HEALTH SUPPORT
Health.Research@westerncape.gov.za
tel: +27 21 483 0866: fax: +27 21 483 6058
5th Floor, Norton Rose House, 8 Riebeek Street, Cape Town, 8001
www.capegateway.gov.za

REFERENCE: WC_202110_017
ENQUIRIES: Dr Sabela Petros

Private Bag X 17
Bellville
7535
Republic of South Africa

For attention: Ms Zusive Mhambi

Re: Professional nurses at a Psychiatric Hospital in the Western Cape's knowledge and attitudes towards care of patients with elderly dementia.

Thank you for submitting your proposal to undertake the above mentioned study. We are pleased to inform you that the department has granted you approval for your research.
Please contact the following people to assist you with any further enquiries in the following sites:

Lentegeur Hospital	**Mary Jacobs**	**021 370 1314**
	Nadine Jacobs	**021 370 1105**

Kindly ensure that the following are adhered to:

1. Arrangements can be made with managers, providing that normal activities at facilities are not interrupted and the constraints caused by the COVID-19 pandemic above are respected and adhered to.
2. Researchers, in accessing provincial health facilities, are expressing consent to provide the department with an electronic copy of the final feedback (**Annexure 9**) within six months of completion of research. This can be submitted to the provincial Research Coordinator (Health.Research@westerncape.gov.za)
3. In the event where the research project goes beyond the *estimated completion* date which was submitted, researchers are expected to complete and submit a progress report (**Annexure 8**) to the provincial Research Coordinator (Health.Research@westerncape.gov.za)
4. The reference number above should be quoted in all future correspondence.

Yours sincerely

DRM MOODLEY

APPENDIX 6: Authors Permission

UNIVERSITY OF THE WESTERN CAPE

Private Bag X 17, Bellville 7535, South Africa
Tel: +27 21-959-3900 Fax: 27 21-959 3115
E-mail: 3376508@myuwc.ac.za

Dear Author,

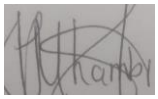
I am a master's student at the University of the Western Cape completing a mini thesis in Advanced Psychiatry. I am writing to ask written permission to use the questionnaire that was used by Author A.J Hunt and Author A.J Rothmans on a study that was conducted in 2006 on college students' mental models for recognising anorexia and bulimia nervosa. In my research I will use a quantitative descriptive survey design, as the study aims at describing professional nurse's knowledge and attitudes towards the care of patients with eating disorders. My research is being supervised by Professor F. Daniels.

I am requesting your permission to use the questionnaire and to modify it for use in my context. I would also appreciate receiving copies of the test questionnaire, the standard instructions for administering the test, scoring procedures and the reliability score or Cronbach Alpha for this tool. In addition to using the instrument, I also ask your permission to reproduce it in my mini thesis appendix. I will use the questionnaire only for my research study and will not sell or use it for any other purposes.

If you are giving me permission to use your questionnaire, please indicate so by replying to me through:

e-mail at 3376508@myuwc.ac.za.

Yours Sincerely,
Zusive Mhambi
student number 336508, University of the Western Cape, Cape Town



APPENDIX 7: Turnitin report