

**THE ROLE AND ATTITUDE OF PHARMACISTS IN MENTAL HEALTH
MANAGEMENT AT COMMUNITY PHARMACIES IN THE LIMPOPO PROVINCE**

by

TSHWARELO DESREE RAMALEPE

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Supervisor: MANYAMA TL


Co-supervisor: CHANYANDURA JT

TSHITAKE RM

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DECLARATION

I, **Ramalepe TD**, hereby declare that the dissertation hereby submitted to the University of Limpopo, for the degree of **Master of Pharmacy (Pharmacology)** has not previously been submitted by me for a degree at this or any other university; that this is my work in design and in execution, and that all material contained herein has been duly acknowledged.

Signed by: 

on April 11th, 2025.

DEDICATION

This work is dedicated to my late grandmother **Mrs LM “Mmawe” Ramalepe**. Although she is no longer in this world, my memories with her keep me going. Her dreams and prayers for me are coming true. This moment fills me with gratitude for her...

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ABBREVIATIONS AND ACRONYMS

ADHD – Attention Deficit Hyperactivity Disorder

CBHSQ - Centre for Behavioural Health Statistics and Quality

CI – Confidence Interval

COVID-19 – CoronaVirus 2019

CPD – Continuing Professional Development

HIV/AIDS – Human Immunodeficiency Virus/ Acquired Immune Deficiency Syndrome

KAP – Knowledge, Attitude and Practice

OTC – Over The Counter

PHQ – Patient Health Questionnaire

PTSD – Post-Traumatic Stress Disorder

SACAP - South African College of Applied Psychology

SAPC – South African Pharmacy Council

SPSS – Statistical Package for Social Sciences

SREC – School Research and Ethical Committee

TREC – Turfloop Research and Ethical Committee

UBPN - United Nations Policy Brief

WHO – World Health Organization

ABSTRACT

Introduction: Pharmacists are medication experts who play various significant roles in the provision of proper mental health care. Community pharmacists are usually either the first point of contact for the patient seeking pharmacist-initiated therapy or the last point of contact for a patient who has consulted with a doctor. Consequently, they have a huge role to perform in mental health management. Mental health patients are generally highly associated with non-compliance to treatment, mainly due to the severely uncomfortable side effects of the treatment. Most of them also tend to feel embarrassed by having these conditions mainly due to the stigma and misconception built around mental health conditions. This usually leads to a relatively high mortality rate. This suggests that patients may not have enough information regarding their mental health. Past studies have shown that lower levels of mental health stigma have also been revealed to be associated with community pharmacists' preparedness to offer professional pharmacy services to patients with schizophrenia and other mental health conditions. This means the attitude affects the service. No studies have been found regarding the roles of community pharmacists and their attitudes towards mental health patients in South Africa, thereby necessitating this study.

Objectives: The objectives of this study were to identify the role, to determine the attitude of community pharmacists, and to identify the obstacles that community pharmacists practising in Limpopo Province are faced with in the management of mental health conditions.

Method: 145 community pharmacists in Limpopo Province were recruited into the study using stratified random sampling. Data was collected using a questionnaire comprising of a consent form, demographics, and questions related to the roles of community pharmacists in mental health management, and their attitude towards mental health patients. All the data obtained was analysed using Statistics Package for Social Sciences (SPSS version 27, 2021) to obtain descriptive and inferential statistics.

Results: This study has found that community pharmacists in Limpopo Province perform their roles in mental health management. The results revealed that the attitude of these community pharmacists is neutral. Furthermore, the participants indicated that they are comfortable dealing with mental health patients. Lack of training in pharmaceutical care practice, lack of patient history and lack of cooperation from mental health patients are the main obstacles faced by community pharmacists practising in Limpopo Province.

Conclusion: The increasing concern over mental illness calls for an urgent need for community pharmacists countrywide to stick to their commitment in offering mental health management services. Community pharmacists in Limpopo Province are comfortably fulfilling their roles in the management of mental illnesses. However, their attitude towards mental health patients could be improved.

Recommendations: Further training and education should be provided to community pharmacists. Community pharmacists in Limpopo Province should be encouraged to build and maintain relationships with other healthcare practitioners. Mental health awareness campaigns should be arranged for community pharmacies in Limpopo Province. Furthermore, screening resources/tools should be provided to community pharmacists in Limpopo Province. It would be beneficial to develop policies and resources should be developed to motivate community pharmacists in Limpopo to increase their participation in mental health care service provision.

CHAPTER 1

INTRODUCTION

1.1. INTRODUCTION

This chapter gives a brief summary of the study. It describes the background and rationale, problem statement, aim, objectives and significance of the study.

1.2. BACKGROUND AND RATIONALE FOR THE STUDY

Mental health is a state of well-being in which an individual recognizes his or her own capabilities, can handle the typical pressures of life, can work effectively, and is able to make a difference in his or her community (WHO, 2018). According to WHO (2018), mental health is more than just the absence of mental disorders or disabilities. It incorporates constant wellness and happiness.

Globally, more than 300 million people live with depression and more than 260 million people are suffering from anxiety disorders (WHO, 2018). The Centre for Behavioural Health Statistics and Quality (2015) states that in any given year, roughly 18.1% (43.6 million) of U.S. adults have suffered from any mental illness and 4.2% (9.8 million) have suffered from a serious mental illness. Mental conditions make up 5% of the total burden of disease and 19% of all disability in Africa (Onwurah, 2020). One in six South Africans live with anxiety, depression or substance-use problems (this excludes more serious conditions such as bipolar disorder or schizophrenia), states the South African College of Applied Psychology (SACAP, 2019). According to Herman *et al.*, (2011), an estimated 30.8% of the population in Limpopo Province suffer from mental disorders. Sixty-one percent of people who seriously considered committing suicide at some point in their life have been reported to have suffered from a mental health disorder at some point (Khasakhala *et al.*, 2011).

Mental health patients are generally non-compliant to treatment, mainly due to the severely uncomfortable side effects of mental health medication. Most of them also tend to feel embarrassed about these conditions mainly due to the stigma and

misconception built around this group of conditions (Du Plessis *et al.*, 2021; Buchman-Wildbaum *et al.*, 2020). This usually leads to relatively high morbidity and mortality rates. This suggests that patients may not have enough information regarding their mental health. Could community pharmacists play a role in changing this?

Pharmacists are medication experts and play various significant roles in the provision of proper mental health care. Community pharmacists are usually either the first point of contact to the patient seeking pharmacist-initiated therapy or the last point of contact for a patient who has just consulted with a doctor. They are also the ones who come into contact with the patient on a monthly basis when they collect their monthly prescription medication. As the most accessed health care provider, community pharmacists are presented with opportunities to recognize mental health conditions through observation and screening; thereby enabling patient referral where need arises. In addition, they are expected to advise the patient on the condition they are facing in general and share proper resources with them. They have the duty of counselling patients on their psychiatric drugs regarding how and when to take them, and possible side effects. Moreover, community pharmacists are expected to improve patient compliance. Lastly, they play a role in evaluating psychiatric prescriptions and ensuring that polypharmacy is avoided (Moore *et al.*, 2018).

Generally, community pharmacists have a favourable attitude to patients with depression and mental illness (Shami *et al.*, 2021). A study conducted in the United States of America amongst 458 community pharmacists revealed that 91% of the pharmacists had a positive attitude toward working with mentally ill patients (Watkins *et al.*, 2017). Paradoxically, a related study in Nigeria revealed that health professionals, including pharmacists, had a negative attitude towards mental ill patients (Ubaka *et al.*, 2018). South African studies on community pharmacists' attitude towards mental health patients could not be found, thereby necessitating this study.

Community pharmacists come across various obstacles when rendering mental health services. According to Shami *et al.*, (2021), lack of patients' medical history, lack of patients' insight on depression and the importance of treatment, lack of private

consultation area and lack of knowledge and training on mental health are the major obstacles faced by community pharmacists in Qatar.

While pharmacists are among the most easily reachable health professionals for patients with mental health problems (Murphy *et al.*, 2016), there is insufficient literature about the current practice of community pharmacists regarding their role in South Africa, particularly Limpopo Province.

1.3. PROBLEM STATEMENT

Pharmacists are expected to play a role in the primary care of patients suffering from mental health problems by advising and counselling them about medicines. In addition, pharmacists are expected to follow up on patients regarding drug-related problems and monitor compliance. By executing these roles which are patient-centred and collaborative, community pharmacists can influence mental health outcomes (Moore *et al.*, 2018). Community pharmacists are expected to have a positive and encouraging attitude towards mental health patients as a negative attitude can lead to stigma. They should always furnish these patients with as much information as they can, they should avoid stigmatising these patients, and they should be patient and be comfortable discussing all kinds of mental illnesses (Black *et al.*, 2015).

While their expected role is known, it is not known whether community pharmacists practising in Limpopo Province are fulfilling these roles in mental health management. Furthermore, their attitude towards mental health patients is not known. As such, this study aims to investigate the role of community pharmacists in mental health management and their attitude when managing mental health patients within Limpopo Province.

1.4. RESEARCH QUESTION

What is the role and attitude of community pharmacists practising in Limpopo Province in mental health management?

1.5. AIM OF THE STUDY

This study aims to investigate the role and attitude of pharmacists in mental health management at community pharmacies in the Limpopo Province.

1.6. OBJECTIVES OF THE STUDY

The objectives of the study were set as follows:

- To identify the role of community pharmacists practising in Limpopo Province in mental health management.
- To determine the attitude of community pharmacists practising in Limpopo Province towards mental health patients and mental health management.
- To identify the obstacles that community pharmacists practising in Limpopo Province are faced with in the management of mental health conditions.

1.7. IMPORTANCE OR SIGNIFICANCE OF THE STUDY

There is currently no literature on the roles played by community pharmacists when it comes to mental health patients in Limpopo Province. This study might therefore contribute to literature in that manner. The literature can then be useful in the following ways in community pharmacies and the profession in South Africa:

- Early detection and management of mental health conditions.
- Improvement of service provided to mental health patients.
- Skill development and training of pharmacy personnel about mental health.
- Curriculum design for pharmacy students to adequately prepare them.
- Policy and/or guideline amendments to accommodate these patients.

1.8. SUMMARY

While there is not enough literature in Limpopo Province regarding community pharmacists playing their role in mental health, this chapter has outlined and briefly summarized the topic.

CHAPTER 2

LITERATURE REVIEW

2.1. INTRODUCTION

This chapter outlines the state of mental health in South Africa, the perception of community pharmacists on patients with mental health conditions. It further describes, in general, the roles of community pharmacists in mental health care, and the barriers in the provision of mental health pharmacy services. Lastly, it indicates the consequences associated with failure to correctly identify or manage mental health disorders.

2.2. Mental health in South Africa

The current state of mental health in South Africa should trigger us to stop and assess what can be done to improve the provision of quality mental health services (Pillay, 2019).

1. 2.2.1 PREVALENCE

According to Pike *et al.*, (2020), mental and behavioural disorders account for 7.4% of the global burden of disease and represent the leading cause of disability worldwide with an estimated 22.2%. WHO (2018) states that in the period between 2005 and 2015, the prevalence of mental health disorders has increased by 16%. In Africa, an estimated 5% of the population suffers from one mental disorder or the other and this number is expected to grow by 2030 (Wekesah, 2013). According to Cortina *et al.*, (2012), 14.5% of children and adolescents suffer from one or more mental disorder(s), 1 in 10 children in Africa have suffered from a specific mental illness. It was found that the most prevalent mental health disorders in South Africa are anxiety disorders (15.8%), substance use disorder (13.3%) and mood disorders (9.8%) (Herman *et al.*, 2011). According to Pillay (2019), 40% of South Africans with HIV suffer from mental health disorders, 41% of pregnant women in SA are depressed and 60% of South Africans could suffer from PTSD due to vehicle crashes and crime. On top of all these high statistics, only 27% of South Africans with severe mental disorders receive proper

treatment (Pillay, 2019). Since the outbreak of coronavirus (COVID-19) in South Africa in 2020, 33% of South Africans were reported to be depressed, 45% were fearful and 29% were lonely during the lockdown that resulted from the pandemic (Human Sciences Research Council, 2020). There is no data recorded regarding the current prevalence of mental health in Limpopo Province.

2.2.2. ATTITUDE OF COMMUNITY PHARMACISTS ON PATIENTS WITH MENTAL HEALTH CONDITIONS

According to Abun *et al.*, (2019), attitude has three components, namely: a feeling, a belief and an action. Hence, a person's attitude towards a certain issue consists of their point of view, how they feel about it and actions.

2.2.2.1. ATTITUDE

Shami *et al.*, (2021) found that community pharmacists in Qatar have a generally favourable attitude towards patients with depression and mental illness. Rubio-Valera *et al.*, (2014), has also found that community pharmacists have reported more stigmatizing views towards people with schizophrenia than depression. Community pharmacists in Switzerland have reported a higher level of comfort in discussing medication use in depression than schizophrenia and being uncomfortable discussing mental illness' symptoms (Rubio-Valera *et al.*, 2014). According to a study conducted by Black *et al.*, (2015), 64 of 78 respondents agreed that community pharmacists in Canada understand when it comes to mental health patients; most patients also disagreed that pharmacists talked down on them or are reluctant to serve them. Black *et al.*, (2015) also found that approximately 75% of the sample reported not experiencing stigma or discrimination with their community pharmacist. The study also found that the remaining 25% of the respondents perceived community pharmacists as reluctant to serve them or talk down on them. There is currently no literature regarding the attitude of community pharmacists towards mental health in South Africa.

2.2.2.2. QUALITY OF SERVICE PROVIDED TO MENTAL HEALTH PATIENTS

Huang *et al.*, (2022) stated that quality service delivery to mental health patients is primarily affected by self-efficacy and professional confidence. It was suggested in Malaysia that increased awareness and training on the services available for mental health patients, would help patients access these services. Furthermore, it was highlighted that overall therapeutic-based information on the addictions and mental illnesses would actually come in handy in helping improve the services provided to mental health patients (Wong *et al.*, 2019). Rubio-Valera *et al.*, (2014) stated that in Switzerland, lower levels of mental health stigma have been shown to be linked with community pharmacists' willingness to provide professional pharmacy services to patients with schizophrenia and other mental health conditions.

2.3. ROLES OF COMMUNITY PHARMACISTS IN MENTAL HEALTH CARE

Mental illness is posing a huge concern in communities. As such, community pharmacists could play a bigger role in providing services related to mental health. According to Good Pharmacy Practice and associated SAPC rules (2017), the role of community pharmacists in South Africa includes the provision of pharmaceutical care by taking charge for the patients' medicine-related needs and accounting for meeting these needs. The roles of community pharmacists in mental health services include screening, ensuring quality use of medicines, and counselling and supply of resources.

2.3.1. SCREENING AND RISK ASSESSMENT

Community Pharmacists in South Africa may screen and provide Pharmacist Initiated Therapy to mental health patients (Good Pharmacy Practice and associated SAPC rules, 2017). Screening is a realistic and effective service to be offered by community pharmacists (O'Reilly *et al.*, 2014). It was found that community pharmacists could identify people who were at high risk of depression. Some of these people had previously undetected depression. However, the pharmacists screened them for depression, and would refer them to appropriate health services where necessary (O'Reilly *et al.*, 2011). This is possible as community pharmacists are usually the first point of contact for patients requiring pharmacist-initiated therapy and they are easily

accessible to patients. This enables them to easily identify patients with mental illnesses like insomnia, PTSD and depression (O'Reilly *et al.*, 2011).

2.3.2. ENSURING QUALITY USE OF MEDICINES

Firstly, community pharmacists have the role of reviewing medication in order to identify and resolve medication-related problems. With this, they would be able to improve medication appropriateness in order to improve the quality of life of mental health patients (Allred *et al.*, 2013). Secondly, community pharmacists can improve patients' adherence to treatment. Mosidi *et al.*, (2014) states that lack of compliance in mental health patients remains a problem due to the unpleasant side effects of most mental health medication and lack of insight. Thirdly, the community pharmacists can enhance the quality use of medicines by reducing polypharmacy in mental health treatment. Patients on treatment with multi mental health medication may experience a higher number of adverse effects than those on monotherapy (Gallego *et al.*, 2012). Lastly, it is the community pharmacists' role to develop a patient-centred care model whereby a partnership relationship between the patients and their families or next of kin and the community pharmacist is formed in order to assess the patient's needs, values and preferences (Ilardo & Speciale, 2020). All these are within the community pharmacists' scope of practice, as it is stated that community pharmacists in South Africa should evaluate a patient's medicine-related needs and determine patient compliance with the therapy and follow-up (Good Pharmacy Practice and associated SAPC rules, 2008).

2.3.3. SUPPLY OF RESOURCES AND COUNSELLING

Good Pharmacy Practice and associated SAPC rules (2008) states that counselling, furnishing mental health patients with medication related information and providing resources for mental health patients are also roles of community pharmacists in South Africa. For example, community pharmacists can provide their suspected mental health patients with a list of local mental health providers and hotline numbers to contact if they need help. Moore *et al.*, (2018) states that the provision of printed materials to these patients about mental health diseases, their treatments and

expected side effects can be of great use and can also help in maintaining adherence as they will have enough information on their conditions. Encouraging mental health patients to contact the pharmacy when they need information regarding their condition will also make them feel at ease.

2.3.4. BARRIERS IN MENTAL HEALTH PHARMACY SERVICES

Several barriers can be experienced by community pharmacists when rendering mental health services. Below are some of the barriers experienced by community pharmacists in other studies.

2.3.4.1. MENTAL HEALTH STIGMA

According to Shahwan *et al.*, (2022), stigma associated with mental health is defined as being a negative attitude, based on prejudice and misinformation, which is triggered by a sign of illness. Stigma is made up of three components: problems of knowledge (which may be due to ignorance), problems of attitude (due to prejudgment) and problems of behaviour (discrimination), states Li *et al.*, (2018). Participants in a study by Dale (2021) reported that mental health community pharmacists in Mississippi were one of the most stigmatizing of all groups. Stigma normally expresses through negative attitude, unwelcoming behaviour and poor treatment of patients once diagnosis is made (Hansson *et al.*, 2013). The consequences of stigmatization by community pharmacists may result in social side-lining which reduces chances of mental health patients seeking help. This further results in under-treatment, lack of access to care and non-compliance to treatment (Gysel *et al.*, 2022). Community pharmacists and other mental health professionals have an important role in directing health outcomes, how they act can either increase or decrease stigma around mental health (Dale, 2021).

2.3.4.2. LACK OF COMMUNITY PHARMACISTS' EDUCATION AND TRAINING

Wong *et al.*, (2019) identified in their study that 40% of a sample of community pharmacists felt that they did not have enough training and/or education about mental

health and dealing with mental health patients in their undergraduate pharmacy education. However, 28.4% agreed that they had received enough education and 31.6% could not agree or disagree. Thirty-four percent of the community pharmacists also stated that they did not have enough knowledge on the pharmacotherapy of patients with mental illnesses. In contrast, 44% could not agree or disagree and 16% felt that they had enough knowledge. Offering pharmacy students opportunities to be in contact with mental health in a safe, non-confrontational educational setting has proven to be an effective method at reducing stigma. This improves their willingness to provide services to mental health patients as community pharmacists and pharmacists in general (O'Reilly *et al.*, 2013). Further training and workshops post-graduation could also come in handy. Further research to evaluate mental health training programs for pharmacists at all levels would be valuable.

2.3.4.3. LACK OF COMMUNICATION AND/OR COOPERATION WITH OTHER HEALTH CARE WORKERS

Cooperation with other health care professionals may be a bit challenging for community pharmacists as compared to pharmacists in other sectors like hospitals. Rahayu *et al.*, (2021), stated that community pharmacists who work in interprofessional care teams can offer solutions to encourage patient therapeutic adherence, thereby improving clinical outcomes and reducing adverse effects and treatment costs. Communication is mainly done in the interest of the patient hence the patient will be adversely affected if it is not done. Wong *et al.*, (2019) stated that lack of patient information like history, drug indications and treatment goals is one of the barriers affecting the provision of care to mental illness patients by community pharmacists. This could easily be alleviated by collaboration between community pharmacists and physicians.

2.3.4.4. PATIENT RELATED FACTORS

An overwhelming 61.3% of community pharmacists who participated in a study by Wong *et al.*, (2019) stated that one of the main barriers that affect the provision of care is that mental health patients do not understand the pharmaceutical care that is given

and explained to them. As such, patients are encouraged to always be accompanied by caregivers. However, only 8.6% of the participants disagreed with the claim. Furthermore, the study found that patient factors associated with their symptoms such as irritability, absent-mindedness, unfriendliness, and intellectual dysfunction can affect the provision delivered to mental health patients.

2.4. CONSEQUENCES ASSOCIATED WITH FAILURE TO CORRECTLY IDENTIFY OR MANAGE MENTAL HEALTH DISORDERS

The failure to identify or properly manage mental health conditions can result in several undesirable outcomes that may in turn increase the disease burden of these conditions. Some of these consequences are discussed as follows.

2.4.1. DISABILITY

Mood disorders like bipolar and depression, anxiety, alcohol and drug abuse, and schizophrenia are among the top twenty conditions that result in the burden of disability globally. It was also found that disability associated with mental disorders surpasses the burden associated with other non-infectious diseases like cancer, diabetes, cardiovascular diseases, neurological diseases and injuries (Pike et al., 2020).

2.4.2. SUICIDE

The most common cause of death is suicide due to unidentified and unmanaged mental conditions and suicide is the second leading cause of death in young people aged 15-29 (UNPB, 2020). Pike *et al.*, (2020) has found that bipolar and schizophrenia account for roughly 10-15% of suicide deaths. Suicide deaths account for 90% of deaths in mental health illnesses in high income countries (UNPB, 2020).

2.5. THEORETICAL FRAMEWORK

In this study, the Knowledge, Attitude, and Practice (KAP) theory model (see Figure 1) was adopted with a focus on attitude and practice. In this study, the KAP model helped to elicit what was known (knowledge), what was believed (attitude) and done

(practiced) in the community pharmacies about mental health. KAP-based studies do not require a large budget. However, such studies usually address an easily accessible population, and are simple; hence they are popular in the field of health. Using KAP is very beneficial as it helps to identify the baseline knowledge, myths, beliefs, and behaviours about a specific health-related topic. In addition, the KAP theory helps to understand, analyse, and communicate the topics of interest. Another benefit of KAP is that it provides information on the needs, issues, and obstacles related to the development of locally relevant health interventions and enables the evaluation of changes made after intervention (Andrade *et al.*, 2020).

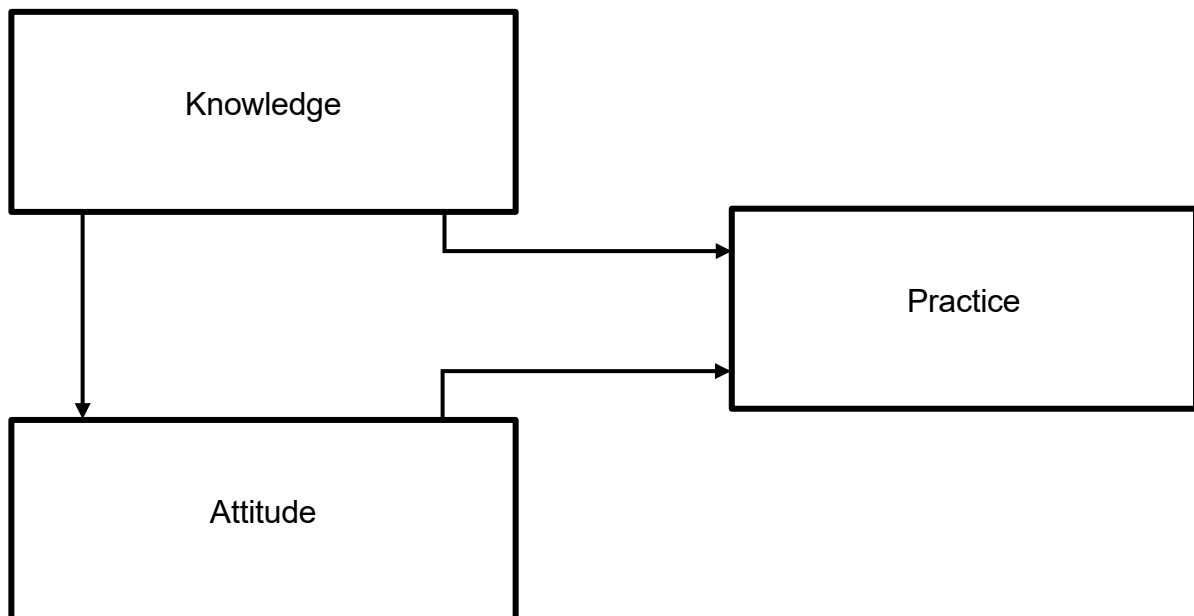


Figure 1: Diagrammatic representation of KAP (Andrade *et al.*, 2020)

In this study, knowledge refers to the participants' knowledge of mental health. Attitude refers to the participants' feelings towards mental health management and practice is an action of the participant (role) towards mental health management.

The framework described the current knowledge, attitude and role of community pharmacists in Limpopo Province. It further determined the relationship of knowledge and attitude with mental health management. It helped to identify the areas in need of interventions in mental health management in the province. The KAP addressed the

gap that highlighted how the knowledge and attitudes relate to the role of community pharmacists towards mental health management.

2.6. SUMMARY

The literature review has summarised the global and South African statistics of mental health and the roles expected of community pharmacists in providing mental health services. It also summarised the attitudes of community pharmacists and the barriers to mental health services reported in literature.

CHAPTER 3

METHOD

3.1. INTRODUCTION

This chapter presents the study design, study site, study population, study period, pilot study, sample selection, data collection, reliability and validity and data analysis.

3.2. STUDY DESIGN

This research study used a descriptive, cross sectional study design. According to Price *et al.*, (2015), a cross-sectional study is a study carried out at a one-time point or over a short period. Descriptive research seeks to depict what exists in a group or population; it does not try to measure the effect instead it seeks to describe it (Price *et al.*, 2015). The descriptive design assisted the researcher to describe the roles played by community pharmacists in mental health management as well as their attitude towards mental health management.

3.3. STUDY SITE

This study was conducted in Limpopo Province. Limpopo Province is in the northern part of South Africa. It has 5 districts, namely the Capricorn district, Mopani district, Waterberg district, Vhembe district and Sekhukhune district. The study was conducted in all 5 districts of Limpopo Province. The Capricorn district is situated as a stopover between Gauteng and the northern areas of Limpopo Province, and between the north-western areas and the Kruger National Park. It has the third-largest district economy in the province and is predominantly rural in nature. Mopani district is located within the north-eastern quadrant of the Limpopo Province. Sekhukhune district is located in the Limpopo Province, the northernmost part of South Africa and it lies in the south-eastern part of the province. Vhembe district is located in the northern part of the Limpopo Province, and it covers a geographical area that is predominantly rural. Waterberg district is located in the western part of the Limpopo Province. Below is a map of Limpopo Province:

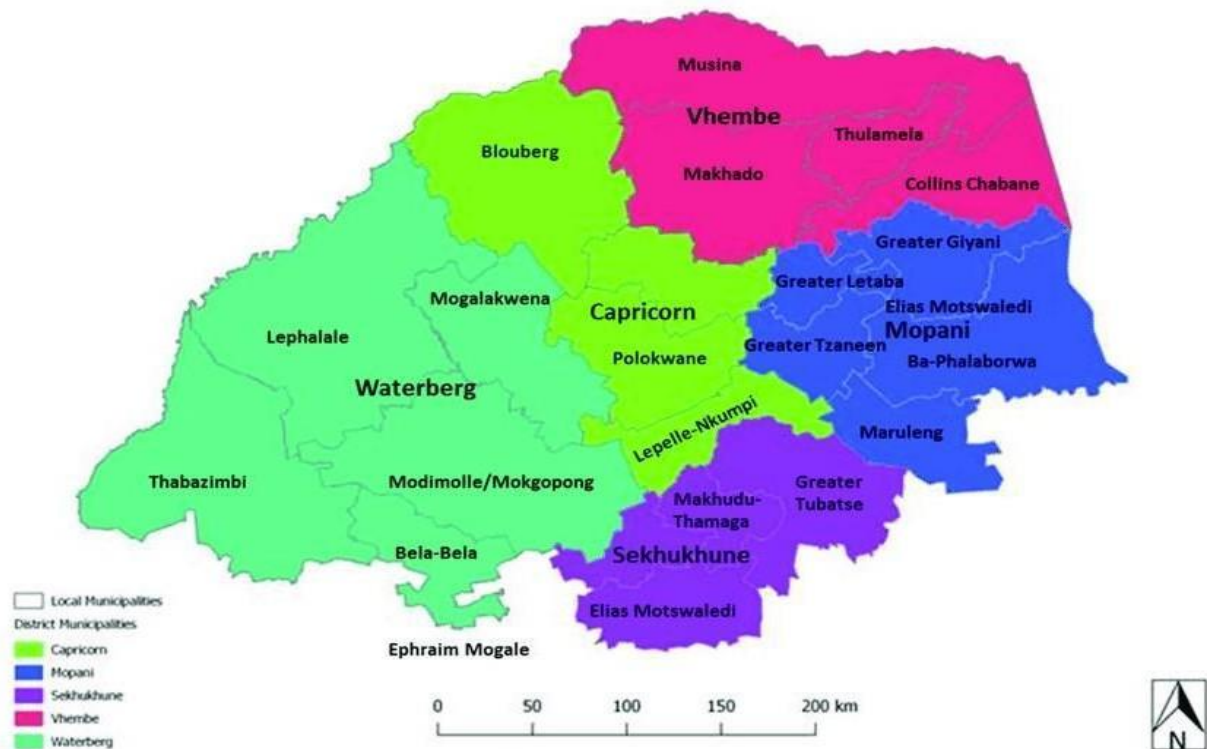


Figure 2: site map of Limpopo province (Serato *et al.*, 2021)

3.4. STUDY POPULATION

Community pharmacists who practice in Limpopo Province were invited to participate in the study. According to SAPC statistics, there are 228 community pharmacists in Limpopo Province (SAPC, 2020). Although SAPC provides statistics of pharmacists in each province, it does not provide the number of pharmacists working in each community pharmacy and each district. However, based on the researcher's knowledge and SAPC requirements, there is at least one pharmacist per community pharmacy. Our total population is thus 228 community pharmacists in Limpopo Province.

3.5. PILOT STUDY

The pilot study was performed on 14 community pharmacists that were not included in the actual study. The reliability statistics were run on the questionnaire and the questions with a negative correlation were either fixed or removed.

3.6. SAMPLE SELECTION

Stratified random sampling was used in this study. In stratified random sampling, a population is divided into smaller groups and a random sample is taken from each subgroup (Taherdoost, 2016). The population was divided into strata based on districts and location (rural or urban). Each stratum was then sampled by using random sampling allowing the estimation of statistical measures for each stratum, this ensured that each characteristic was well represented. A sample size for each stratum was thus decided upon (proportionate sampling was used in this study to ensure an equal number of representatives for each stratum). Then a sample was randomly selected from each stratum (Thomas, 2020).

The sample size was calculated using the Yamane formula.

$$n = \frac{N}{1 + N(e)^2}$$

N = population size

n = sample size

e = error of margin (0.05)

$$n = \frac{228}{1 + 228(0.05)^2} = 145$$

The sample size was 145. The 145 was divided by 5 (the number of districts) as per the sampling method described above, which gave us 29. This meant that 29 community pharmacists were required per district. Only one (1) pharmacist was allowed to participate per pharmacy.

3.7. INCLUSION AND EXCLUSION CRITERIA

3.7.1. INCLUSION CRITERIA

The inclusion criteria was only pharmacists with experience in community pharmacy practice. The pharmacists should be currently practising in community pharmacies. This is because the study aimed to find out the current practice.

3.7.2. EXCLUSION CRITERIA

This study excluded locum pharmacists as they are not permanently employed by community pharmacies. This is because locum pharmacists are regarded as self-employed and may have limited exposure to the community environment. The study aimed to find out how community pharmacists practicing full time in retail execute their roles.

3.8. DATA COLLECTION INSTRUMENT

The data collection tool used was an online questionnaire developed using literature (Wong *et al*, 2019) and the objectives of this study (Annexure 1). The questionnaire consisted of 6 sections: namely, the consent form, demographics, roles of community pharmacists in mental health management, attitude of community pharmacists towards mental health patients, comfortability of community pharmacists in managing mental health conditions and obstacles faced by community pharmacists when providing care for mental health patients. It consisted of a 5-point Likert scale from section 3 to section 6 where participants had to select the point they found most relatable. For section 3, the points were Never, Rarely, Sometimes, Often and Always while sections 4 to 6 consisted of Strongly disagree, Disagree, Neutral, Agree and Strongly Agree. The data collection tool consisted of 41 questions and was developed using the aim and objectives of this study and an assessment of literature.

3.9. DATA ENTRY AND ANALYSIS

All the data obtained was analysed using Statistics Package for Social Sciences (SPSS version 29, 2023). The results were interpreted using descriptive and inferential statistics. Descriptive statistics refers to percentages of data, table and graphical representation of data. Inferential statistics was used to determine statistical relationships amongst the variables. Chi square, One-way Anova and independent samples T-test were used for inferential statistics. The relationship between variables was considered as significant when $p < 0.05$. Multivariate linear regression analysis was used to determine the obstacles influencing the practice, attitude and comfortability score.

Practice, attitude and comfortability score variables were derived by computing the statements from section 3, 4 and 5 of the data collection respectively. They were recorded into a scale of 1 to 7 with 1 being the most negative attitude or comfortability or fulfilling the least roles and 7 being the most positive attitude or comfortability or fulfilling the most roles.

3.10. RELIABILITY AND VALIDITY

3.10.1. Reliability

Reliability is the degree to which an assessment tool produces steady and consistent results (Price *et al.*, 2013).

The Cronbach coefficient was used to prove reliability of this study, it reflected the internal consistency of the questionnaire and a value that is greater or equal to 0.800 is considered good (Fan *et al.*, 2018). The Cronbach results were as follows: section 3 (roles) was 0.849, section 4 (attitude) was 0.695, section 5 (comfortability) was 0.904 and section 6 (obstacles) was 0.851 with an average of 0.824.

3.10.2. Validity

Validity refers to how well a test measures what it is supposed to measure (Price *et al.*, 2015). Content and face validity will be used to prove validity in this study.

Face validity is referred to as the researchers' subjective assessments of the presentation and significance of the assessing instrument as to whether the items in the instrument appear to be appropriate, realistic and clear (Taherdoost, 2016). This was proven using a pilot study. A pilot study is a small study to test research procedures, data collection instruments, sample recruitment approaches, and other research methods in preparation for the main, larger study (Lowe, 2019). A pilot study was conducted with 10% of the sample size and participants in the pilot study did not form part of the main study.

Content validity is defined as the degree to which items in an instrument reflect the content universe to which the instrument will be generalized (Taherdoost, 2016). This was proven by asking experts to evaluate the instrument.

3.11. ETHICAL CONSIDERATIONS

3.11.1. *Approval*

The study was presented to the Department of Pharmacy for review, it was then sent to the School Research Ethics Committee (SREC) and last but not least, it was submitted to the faculty for review. Ethical clearance certificate was obtained from the University of Limpopo Turfloop Research and Ethical Committee (TREC). Permission was also obtained from community pharmacies involved. Permission was also requested from the Limpopo department of health using the letter on Annexure 3.

3.11.2. *Harm*

There was no harm to humans. Those who took part in the study were not distressed due to participation, the study did not expose participants to any form of physical and mental harm. Participants were not frightened, embarrassed, offended or threatened because of the study. Full information about the research was given to participants and they were free to stop continuing with the research if they wished to do so.

3.11.3. *Informed Consent and Voluntary Participation*

Informed consent forms (see annexure 2) were given and signed by the participants. Participation is voluntary, and informed consent was necessary. These are forms that were signed by the participants as an agreement that they understand what the study is all about and were voluntarily participating in the research study. Participants had the right to withdraw at any time without any penalty implicated to them.

3.11.4. *Anonymity, Confidentiality and Privacy*

Participants were assured that the study is confidential. The information acquired was not used for any other purposes other than for research purposes. No names or any other information that may potentially identify any participant information were published in the research. Participants took part in their own time and thus privacy will be applied. To maintain privacy, access to participants' information by those not involved in the research was prohibited by password protection.

3.12. SUMMARY

In short, the descriptive, quantitative study was conducted in Limpopo Province using a population size of 107 community pharmacists. A questionnaire was used to collect the data and SPSS was used to validate and analyse the data using features such as the Chi square, One-way Anova and Independent T-test. Ethical considerations were also considered. The results of the data collected over the 7-month period, will be presented in Chapter 4.

CHAPTER 4

RESULTS AND DISCUSSION

3.13. INTRODUCTION

This chapter covers the results of the data collected during the study and provides analysis of the collected data. The data was obtained using the data collection tool outlined in chapter 3. These include the demographics, roles, attitudes, comfortability and obstacles faced by community pharmacists in the provision of the mental health services. The results are discussed with reference to the current literature pertaining to this study.

3.14. COMMUNITY PHARMACIST DEMOGRAPHICS

This section outlines the demographics of the participants of this study. Of the 145 community pharmacists targeted for this study, 107 community pharmacists participated, giving a response rate of 73.8%. The majority of participants were females (54.2%) while males contributed 45.8%. An overwhelming percentage of the respondents were African (81.3%), followed by 17.8% of White pharmacists. This was consistent with the demographics of Limpopo Province. The Capricorn district had the highest response with 27.1%, Mopani district had 19.6%, Waterberg district had 18.7%, Sekhukhune district had 17.8% with the lowest being Vhembe district at 16.8%. Most of the participants were practicing within independent pharmacies (59.8%). The majority of community pharmacists (52.3%) received their undergraduate training from the University of Limpopo. Table 4.1 provides further information regarding the universities where the respondents obtained their qualification. Most of the participants (42.1%) were between the ages of 30 and 39 while 29% were between the ages of 20 and 29 and the mean age was 36 (SD – 11.325). Fifty-three (49.5%) of the participants had less than 5 years of experience in community pharmacy whereas 21.5% had between 6 and 10 years of experience; the mean years of experience was 9 (SD – 10.231).

Table 4.1: Demographics

Demographic	N=107 (%)
Age	
20 – 29	31 (29%)
30 – 39	45 (42.1%)
40 – 49	19 (17.8%)
50 -80	12 (11.2%)
Years of experience	
=<5	53 (49.5%)
6 – 10	23 (21.5%)
11 – 20	17 (15.9%)
>20	14 (13.1%)
Gender	
Male	49 (45.6%)
Female	58 (54.4%)

Race	
White	19 (17.8%)
African	87 (81.3%)
Coloured	1 (0.9%)
Type of pharmacy	
Chain	43 (40.2%)
Independent	64 (59.8%)
District	
Vhembe	18 (16.8%)
Mopani	21 (19.6%)
Capricorn	29 (27.1%)
Sekhukhune	19 (17.8%)
Waterberg	20 (18.7%)
University where the degree was obtained	
Wits University	3 (2.8%)
Nelson Mandela University	3 (2.8%)

Western Cape University	4 (3.7%)
University of KwaZulu-Natal	2 (1.9%)
Rhodes University	4 (3.7%)
University of Limpopo	56 (52.3%)
Sefako Makgato University	18 (16.8%)
North West University	13 (12.1%)
Tshwane University of Technology	1 (0.9%)
Other	3 (2.8%)

3.15. ROLES OF COMMUNITY PHARMACISTS IN MENTAL HEALTH MANAGEMENT

This section assessed the role played by community pharmacists in the Limpopo Province in the management of mental health conditions. Participants were given a series of statements in order to rate the frequency of involvement in certain roles related to mental health management. The scale had a range of options, namely, never, rarely, sometimes, often and always. The results of this section are presented in Table 4.2.

Table 4.2: Roles of community pharmacists' responses.

Statement	Never N (%)	Rarely N (%)	Sometime s N (%)	Often N (%)	Always s N (%)

Monthly medication review for mental health patients.	10 (9.3%)	13 (12.1%)	38 (35.5%)	20 (18.7%))	26 (24.3%))
Screening patients for mental health signs and symptoms.	24 (22.4%)	27 (25.2%)	29 (27.1%)	19 (17.8%))	8 (7.5%)
Team work with Other healthcare professionals when it comes to mental health patients.	9 (8.4%)	21 (19.6%)	22 (20.6%)	29 (27.1%))	26 (24.3%))
Education sessions with mental health patients and their families.	43 (40.2%)	30 (28.0%)	19 (17.8%)	12 (11.2%))	3 (2.8%)
Prescription refill reminders to mental health patients.	17 (15.9%)	10 (9.3%)	23 (21.5%)	23 (21.5%))	34 (31.8%))
Notification of prescribers when mental health patients fail to fill a prescription.	23 (21.5%)	21 (19.6%)	21 (19.6%)	21 (19.6%))	21 (19.6%))
Provision of patients with OTC medication to manage minor mental health conditions.	10 (9.3%)	8 (7.5%)	21 (19.6%)	25 (23.4%))	43 (40.2%))

Educating mental health patients about possible interactions between complementary and alternative medication and their prescription medicines.	6 (5.6%)	14 (13.1%)	21 (19.6%)	27 (25.2%)	39 (36.4%)
referral of patients to mental health specialists if there is a need.	1 (0.9%)	12 (11.2%)	16 (15.0%)	18 (16.8%)	60 (56.1%)

Most community pharmacists (43%) reported that they often or always reviewed mental health patients' medication every month while 21.4% reported that they rarely or never reviewed mental health patients' medication. Half of the participants who had more than 20 years of experience in the community pharmacy were more likely to review mental health patients' medication as compared to other age categories. The Chi square analysis revealed that this relationship was statistically significant with a p-value of 0.034. Accordingly, the age of the participants also had an influence on the participants' role in the review of mental health patients' medication. Fifty percent of participants who were above the age of 50 stated that they rarely or never performed monthly reviews of patients' medication as compared to the less than 25% from the other age groups. It was found that most participants who were less than 50 years of age were neutral. According to chi square analysis, this relationship was statistically significant with a p-value of 0.004.

Only a few participants (7.5%) indicated that they always screened patients for mental health signs and symptoms. Most of the participants (47.6%) never or rarely screened patients for mental health signs and symptoms (see table 4.2). Fifty-five of the 107 participants (51.4%) reported to often or always collaborate with other healthcare professionals regarding mental health management. In contrast, a minority of 28% reported that they rarely or never collaborated with other healthcare professionals.

Africans were found to more likely collaborate with other mental healthcare professionals than other races and this relationship was statistically significant ($p=0.042$).

The majority of the participants (68.2%) reported that they never or rarely had educational sessions with mental health patients while only 2.8% of the participants always had these sessions. Fifty-eight participants (53.3%) indicated that they often or always sent prescription refill reminders to mental health patients, yet 25.2% indicated that they rarely or never sent prescription reminders. In contrast, most of the participants (41.1%) indicated that they never or rarely notified prescribers if mental health patients defaulted or failed to collect their monthly medication whereas 39.2% on the other hand indicated they often or always notified the prescribers. There was a statistically significant relationship between participants who notified prescribers and the district in which they practice ($p=0.046$). Those practicing within Capricorn district were more likely to notify prescribers than those in other districts. A significant relationship was further observed between participants that notified prescribers and race ($p=0.048$). Majority of the White pharmacists never or rarely (73.7%) notified prescribers when mental health patients failed to fill a prescription. Additionally, the majority of participants (71.4%) with more than 20 years of experience never or rarely notified prescribers when mental health patients failed to collect their prescriptions as compared to less than 41% in the other age groups. This relationship was statistically significant with a p-value of 0.048.

Majority of the participants (63.6%) often or always provided OTC medication to manage minor mental health conditions, with only a handful either never (9.3%) or rarely (7.5%) providing OTC medication. The majority of the participants (61.6%) reported that they often or always educated mental health patients about the interactions of their medication with complementary medicines. However, 18.7% of the participants reported that they never or rarely educated the mental health patients. The majority (72.9%) of the participants often or always referred patients to mental health specialists.

A practice score was computed based on the role statements. The practice score was found to be 4.50 (SD-1.33) on a scale of 1 to 7 with 1 meaning a practice of the least

roles and 7 meaning a practice of the most roles. One-way Anova and Independent T-test were used to determine the statistical relationship between the practice and demographic variables. This study found that African pharmacists (mean=4.64; SD – 1.32) in Limpopo Province are more likely to perform more roles in mental health management than white pharmacists (mean=3.89; SD – 1.24). This relationship was statistically significant with a p-value of 0.013.

Table 4.3: Table of practice vs demographics

		Practice score	P –value
Gender	Male	4.58	0.304
	Female	4.45	
Race	African	4.64	0.013
	White	3.89	
Type of pharmacy	Independent	4.54	0.390
	Chain	4.47	
Age	20-29	4.32	0.228
	30-39	4.69	
	40-49	4.74	
	50 and above	3.92	
Years of experience	≤ 5	4.42	0.240
	6 – 10	4.83	
	11 – 20	4.76	

	> 20	4.00	
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3.16. ATTITUDE OF COMMUNITY PHARMACISTS TOWARDS MENTAL HEALTH PATIENTS.

This section focused on determining the attitude of community pharmacists towards the management of mental health patients. The participants were given a set of statements in order for them to indicate whether they agreed with the statement or they disagreed. The Likert scale had a range of options, namely, strongly disagree, disagree, neutral, agree and strongly agree.

Table 4.5: Attitude of community pharmacists' responses.

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Mental health patients are not easy to maintain a trusting relationship with.	11 (10.3%)	21 (19.6%)	36 (33.6%)	26 (24.3%)	13 (12.1%)
Mental health patients are not difficult to work with.	13 (12.1%)	21 (19.6%)	30 (28.0%)	28 (26.2%)	15 (14.0%)
Mental health patients easily understand and follow medication instructions.	6 (5.6%)	15 (14.0%)	33 (30.8%)	30 (28.0%)	23 (21.5%)

Mental health patients are like other patients.	11 (10.3%)	20 (18.7%)	28 (26.2%)	21 (19.6%)	27 (25.2%)
Mental health patients may present with dangerous behaviour towards health professionals.	8 (7.5%)	13 (12.1%)	44 (41.1%)	20 (18.7%)	22 (20.6%)
I am not afraid of mental health patients.	8 (7.5%)	4 (3.7%)	22 (20.6%)	29 (27.1%)	44 (41.1%)
Mental health patients do not want to talk to community pharmacists about their conditions	18 (16.8%)	25 (23.4%)	38 (35.5%)	16 (15.0%)	10 (9.3%)

Approximately one third (36.4%) of the participants agreed or strongly agreed that mental health patients were easy to maintain a trusting relationship with while 29.9% disagreed or strongly disagreed with this notion. Forty-three of the 107 participants (40.2%) agreed or strongly agreed that mental health patients were not difficult to deal with while 31.7% disagreed or strongly disagreed. Most of the participants (49.5%) agreed or strongly agreed that mental health patients easily understood and followed medication instructions while less than 20% of the participants disagreed or strongly disagreed.

A minority of the participants (19.6%) disagreed or strongly disagreed that mental health patients presented with dangerous behaviour towards community pharmacists, while 39.3% of the participants agreed or strongly agreed. Most of the participants (41.1%) were neutral. While the majority of white pharmacists (52.6%) were neutral with regards to this aspect, most of the African pharmacists (43%) agreed or strongly agreed that mental health patients presented with dangerous behaviour towards community pharmacists. This relationship was statistically significant with a p-value of

0.033. Remarkably, the majority of the participants (68.2%) agreed or strongly agreed that they were not afraid to deal with mental health patients although 11.2% disagreed or strongly disagreed.

Most of the participants (40.2%) disagreed or strongly disagreed that mental health patients did not want to speak to community pharmacists and 24.3% of the participants agreed or strongly agreed. Majority of those who agreed or strongly agreed that mental health patients do not want to speak to community pharmacists about their mental health conditions were practicing within Capricorn and Waterberg districts. As per Pearson Chi square analysis, this relationship was statistically significant with a p-value of 0.024.

Forty-eight of the participants (44.8%) agreed or strongly agreed that mental health patients were like other patients while 29% disagreed or strongly disagreed and 26.2% were neutral.

An attitude score was computed based on the attitude role statements. The attitude score was found to be 4.41 (SD – 1.03) on a scale of 1 to 7 with 1 being a highly negative attitude and 7 being a highly positive attitude. One-way Anova and independent samples T-test were used to determine the statistical relationship between attitude and demographic variables. The attitude score was found to be statistically related to none of the demographics, with none having a P-value ≤ 0.05 .

3.17. COMFORTABILITY OF COMMUNITY PHARMACISTS IN MANAGING MENTAL HEALTH CONDITIONS

This section focused on determining how comfortable community pharmacists in Limpopo Province are in managing mental health conditions. The participants were given a set of statements in order to indicate whether or not they are comfortable fulfilling certain roles in mental health management. The scale had a range of options, namely, strongly disagree, disagree, neutral, agree and strongly agree. The results are presented in table 4.7.

Table 4.6: Comfortability of community pharmacists towards mental health management.

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I find it easy to deal with non-compliant mental health patients.	16 (15%)	30 (28%)	33 (30.8%)	15 (14%)	13 (12.1%)
I have enough knowledge on mental health conditions.	3 (2.8%)	11 (10.3%)	22 (20.6%)	39 (36.4%)	32 (29.9%)
I have enough knowledge on the pharmacotherapy of mental health conditions.	3 (2.8%)	10 (9.3%)	17 (15.9%)	43 (40.2%)	34 (31.8%)
I am confident enough to provide pharmaceutical care to mental health patients.	5 (4.7%)	4 (3.7%)	16 (15%)	28 (26.2%)	54 (50.5%)
I feel comfortable asking mental health patients about their knowledge of their conditions.	1 (0.9%)	8 (7.5%)	25 (23.4%)	29 (27.1%)	44 (41.1%)
I feel comfortable discussing the symptoms of	1 (0.9%)	7 (6.5%)	19 (17.8%)	44 (41.1%)	36 (33.6%)

mental health conditions with patients.					
I have received enough training about mental health conditions during my undergraduate pharmacy education.	8 (7.5%)	11 (10.3%)	28 (26.2%)	28 (26.2%)	32 (29.9%)
I have been attending yearly CPD training and/or workshops regarding mental health.	17 (15.9%)	17 (15.9%)	35 (32.7%)	19 (17.8%)	19 (17.8%)

Community pharmacists need to be comfortable in managing mental health conditions for them to provide the best care. Most (44%) of the participants disagreed or strongly disagreed that they found it easy to deal with non-compliant mental health patients. Only 26.1% of the participants agreed or strongly agreed that they found it easy to deal with non-compliant mental health patients. The majority of those who do not find it easy to deal with non-compliant mental health patients were females. This was statistically significant with a p-value of 0.027.

An overwhelming majority of participants (66.3%) agreed or strongly agreed that they had enough knowledge of mental health conditions although 13.1% disagreed or strongly disagreed. More than two-third majority (72%) of the participants agreed or strongly agreed that they had enough knowledge of pharmacotherapy of mental health conditions.

An overwhelming majority (76.7%) of the participants agreed or strongly agreed that they were confident about providing pharmaceutical care to mental health patients. Coherently, a significant majority of participants agreed or strongly agreed that they felt comfortable asking mental health patients if they knew their conditions and were

comfortable discussing the symptoms of mental health conditions with patients (68.2% and 74.7% respectively).

Sixty of the participants (56.1%) reported that they had received enough training on mental health during their undergraduate training, with 17.8% of the participants reporting to not have received enough training. More than 50% of the participants that were below the age of 50 years agreed or strongly agreed that they had received enough undergraduate training on mental health management while less than 35% of those above the age of 50 agreed or strongly agreed. The relationship was statistically significant with a p-value of 0.008. More than 50% of those who practiced within Capricorn, Sekhukhune and Vhembe agreed or strongly agreed that they received enough training while 30% of those practicing within Mopani and Waterberg disagreed or strongly disagreed. This relationship was statistically significant with a p-value of 0.009. However, attendance of yearly CPDs regarding mental health was low; with only 35.6% of the participants agreeing or strongly agreeing that they attend CPD trainings or workshops.

A comfortability score was computed based on the comfortability statements. The comfortability score was found to be 5.56 (SD – 1.21) on a scale of 1 to 7 with 1 being highly uncomfortable and 7 being highly comfortable. One-way Anova and Independent T-test were used to determine the statistical relationship between comfortability and demographic variables. The comfortability score was found to be significantly related to race with P-value ≤ 0.05 .

Table 4.7: Comfortability score vs demographics

		Comfortability score	P -value
Gender	Male	5.16	0.194
	Female	4.97	
Race	African	5.18	0.009

	White	4.47	
Type of pharmacy	Independent	4.92	0.077
	Chain	5.26	
Age	20-29	5.56	0.407
	30-39	5.77	
	40-49	5.35	
	50 and above	5.17	
Years of experience	≤ 5	5.72	0.666
	6 – 10	5.45	
	11 – 20	5.40	
	> 20	5.36	

3.18. OBSTACLES FACED BY COMMUNITY PHARMACISTS WHEN PROVIDING CARE TO MENTAL HEALTH PATIENTS

This section focused on identifying some of the obstacles encountered by community pharmacists when rendering pharmaceutical care to mental health patients. The participants were given a set of statements to indicate whether they agreed or not. The scale had a range of options, namely, strongly disagree, disagree, neutral, agree, and strongly agree.

Table 4.8: Obstacles faced by community pharmacists in mental health practice.

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Insufficient knowledge about mental health conditions.	24 (22.4%)	29 (27.1%)	30 (28%)	16 (15%)	8 (7.5%)
Lack of training in pharmaceutical care practice for mental health conditions.	19 (17.8%)	28 (26.2%)	31 (29%)	23 (21.5%)	6 (5.6%)
Lack of pharmaceutical care understanding by mental health patients.	17 (15.9%)	20 (18.7%)	41 (38.3%)	21 (19.6%)	8 (7.5%)
Lack of initiative.	14 (13.1%)	26 (24.3%)	36 (33.6%)	21 (19.6%)	10 (9.3%)
Fear or discomfort of dealing with mental health patients.	21 (19.6%)	38 (35.5%)	26 (24.3%)	19 (17.8%)	3 (2.8%)
Time constraints.	18 (16.8%)	25 (23.4%)	24 (22.4%)	17 (15.9%)	23 (21.5%)
Lack of patient information or history.	15 (14%)	13 (12.1%)	19 (17.8%)	29 (27.1%)	31 (29%)

Lack of Cooperation from mental health patients.	7 (6.5%)	17 (15.9%)	45 (42.1%)	30 (28%)	8 (7.5%)
Lack of screening resources.	11 (10.3%)	13 (12.1%)	28 (26.2%)	33 (30.8%)	22 (20.6%)
Lack of signs and symptoms in mental health patients.	10 (9.3%)	20 (18.7%)	49 (45.8%)	21 (19.6%)	7 (6.5%)

Fifty-three (49.5%) of the participants agreed or strongly agreed to having insufficient knowledge about mental health conditions. Of concern was that 22.5% of the participants disagreed or strongly disagreed and 28.0% were neutral. Forty-four percent of the participants disagreed or strongly disagreed that lack of training in pharmaceutical care practice for mental health conditions was an obstacle, although 27.1% agreed or strongly agreed that lack of training in pharmaceutical care practice was an obstacle.

Thirty-seven (34.6%) of the participants disagreed or strongly disagreed that lack of pharmaceutical care understanding was an obstacle while 27.1% of the participants, agreed or strongly agreed. Most of the participants (37.4%) disagreed or strongly disagreed that lack of initiative from community pharmacists was an obstacle when it comes to managing mental health conditions while 33.6% chose to be neutral.

Majority of the participants (55.1%) disagreed or strongly disagreed that the fear or discomfort of dealing with mental health patients was an obstacle. This was statistically significantly echoed by the females (62.1%) as compared to 45.8% of males with a p-value of 0.038.

Most of the participants (40.2%) disagreed or strongly disagreed that time constraints were an obstacle when managing mental health, whereas 37.4% agreed or strongly agreed with 22.4% remaining neutral. Half of those practicing in Mopani district agreed

or strongly agreed that time constraint was an obstacle in management of mental health conditions while the majority of those practicing in Sekhukhune district (63.2%) disagreed or strongly disagreed. This was statistically significant with a p-value of 0.027.

The majority of the participants (56.1%) agreed or strongly agreed that lack of patient history was a hindrance in mental health management by community pharmacists. Twenty-four (22.4%) of the participants disagreed or strongly disagreed that mental health patients do not want to cooperate with community pharmacists. On the contrary, 35.5% of the participants agreed or strongly agreed that mental health patients are uncooperative. Forty-five (42.1%) of the participants were neutral.

Fifty-five (51.4%) of the participants agreed or strongly agreed that lack of screening resources is one of the obstacles faced by community pharmacists in mental health management. In contrast, 22.4% disagreed and 26.2% remained neutral. Twenty-eight (26.1%) of the participants disagreed or strongly disagreed that the lack of signs and symptoms was an obstacle, with 28% of participants agreeing or strongly agreeing. Additionally, 49 out of 107 participants (45.8%) were neutral on whether the lack of signs and symptoms is an obstacle. Half of those who strongly disagreed that the lack of signs and symptoms is an obstacle practiced within the Vhembe district. This had a statistically significant relationship with a p-value of 0.033.

3.19. LINEAR REGRESSION ANALYSIS

Correlations between several variables determined the backward multivariate linear analysis amongst roles/practice, attitude and comfortability scores and each of the obstacle statements. This enabled the determination of the obstacles with significant influence on roles/practice, attitude and comfortability scores.

Table 4.9 presents the obstacles that affect the roles/practice of community pharmacists in the Limpopo Province when rendering mental health services. According to this results, lack of training in pharmaceutical care practice for mental health conditions has a negative influence on the role played by the community

pharmacists in the managements of mental health conditions (p-value of <0.001, Rs=0.196, F=0.245, CI=-0.644:0.008).

Lack of training in pharmaceutical care practice also had a negative influence on the attitude of community pharmacists in the management of mental health conditions (p-value of <0.001, Rs of 0.240, F=3.006 and CI=-509:-0.035). Additionally, lack of cooperation from mental health patients had a negative influence on the attitude of community pharmacists in the management of mental health conditions (p-value of 0.003, Rs of 0.236, F=0.251 and CI=-0.408:-0.079). Table 4.10 presents the detailed results.

Further analysis revealed that lack of training in pharmaceutical care practice (p-value of <0.001, Rs of 0.310, F=0.229 and CI=-0.305:0.171) and lack of patient information or history (p-value 0.037, Rs of 0.274, F=1.328 and CI=-0.307:0.016) have significant negative influence on the comfortability of community pharmacists in the management mental health patients (table 4.11).

Table 4.9: Backward multivariate linear regression results (roles vs obstacles)

Model	First coefficient		Last coefficient	
	Beta value	Significant value	Beta value	Significant value (R square, F square & confidence interval)
Insufficient knowledge about mental health conditions.	-0.106	0.423	-	-

Lack of training in pharmaceutical care practice for mental health conditions.	-0.271	0.056	-0.445	<0.001 (Rs=0.196, F=0.245, CI=- 0.644:0.008)
Lack of pharmaceutical care understanding by mental health patients.	-0.079	0.518	-	-
Lack of initiative.	-0.094	0.432	-	-
Fear or discomfort of dealing with mental health patients.	0.071	0.516	-	-
Time constraints.	0.073	0.500	-	-
Lack of patient information or history.	-0.146	0.159	-	-

Lack of cooperation from mental health patients.	-0.051	0.622	-	-
Lack of screening resources.	0.159	0.173	-	-
Lack of signs and symptoms in mental health patients.	-0.060	0.578	-	-

Table 4.10: Backward multivariate linear regression results (attitude vs obstacles)

Model	First coefficient		Last coefficient	
	Beta value	Significant value	Beta value	Significant value (R square, F square & confidence interval)
Insufficient knowledge about mental health conditions.	-0.016	0.902	-	-

Lack of training in pharmaceutical care practice for mental health conditions.	-0.311	0.025	-0.276	<0.001 (Rs=0.240, F=0.010, CI=-0.509:- 0.035)
Lack of pharmaceutical care understanding by mental health patients.	-0.012	0.922	-	-
Lack of initiative.	-0.049	0.673	-	-
Fear or discomfort of dealing with mental health patients.	-0.065	0.546	-	-
Time constraints.	0.122	0.250	-	-
Lack of patient information or history.	0.046	0.649	-	-
Lack of cooperation	-0.277	0.007	-0.278	0.003 (Rs=0.236,

from mental health patients.				F=0.251, CI=-0.408:-0.079)
Lack of screening resources.	0.040	0.722	-	-
Lack of signs and symptoms in mental health patients.	-0.026	0.802	-	-

Table 4.11: Backward multivariate linear regression results (comfortability vs obstacles)

Model	First coefficient		Last coefficient	
	Beta value	Significant value	Beta value	Significant value
Insufficient knowledge about mental health conditions.	-0.068	0.578	-	-
Lack of training in pharmaceutical care practice for	-0.344	0.009	-0.414	<0.001 (Rs=0.310, F=0.229,

mental health conditions.				CI=-0.624:-0.090)
Lack of initiative.	-0.128	0.248	-	-
Lack of pharmaceutical care understanding by mental health patients.	0.054	0.633	-	-
Fear or discomfort of dealing with mental health patients.	-0.160	0.155	-	-
Time constraints.	0.054	0.589	-	-
Lack of patient information or history.	-0.171	0.077	-0.158	0.037 (Rs of 0.274, F=1.328 and CI=-0.307:0.016)
Lack of cooperation from	0.168	0.081	-	-

mental health patients.				
Lack of screening resources.	-0.116	0.283	-	-
Lack of signs and symptoms in mental health patients.	0.107	0.288		-

3.20. DISCUSSION

4.8.1 Roles of community pharmacists in mental health management.

To the best of our knowledge, this is the first study investigating South African community pharmacists' roles and attitudes in mental health management. According to Good Pharmacy Practice and associated SAPC rules (2017), the role of community pharmacists in South Africa includes the provision of pharmaceutical care by taking charge for the patients' medicine-related needs and being accountable for meeting these needs. The role of community pharmacists typically includes evaluating prescriptions, reviewing, screening, advising, counselling, referring and assisting chronic patients with maintaining compliance. Our results indicate that community pharmacists in Limpopo Province generally fulfil roles in managing mental health conditions with a mean score of 4.51 on scale of 1 to 7.

Less than 50% of the participants always or often review mental health patients' medication every month. Consistent with this study, a study conducted in the United States found that community pharmacists would not review patients on chronic therapy and rarely have conversations with them regarding their maintenance therapy (Moore *et al*, 2018). However, as per Good Pharmacy Practice, it is not necessary to give an overall review of all patients' medication requirements every time they visit the pharmacy, unless there are justifiable reasons. However, community pharmacists

providing the review should make sure that all of the patient's medicine therapy is appropriate, cost-effective, safe and used as indicated. Nevertheless, reviewing medication monthly is important to monitor the response of patients to the treatment. According to Bell *et al.*, (2015), pharmacist-conducted medication reviews may reduce the number of inappropriate medications prescribed to mental health patients. Community pharmacists should consider integrating medication review when dispensing mental health medication. With experience and knowledge gained over the years, it is not surprising that this study revealed that those with more years of experience are more likely to review their patients' medication. Similarly, due to their active role in reviewing medication, this group is more likely to notify prescribers of non-compliant mental health patients. It could also mean that they are comfortable discussing the patient's medication with other healthcare professionals due to their experience. El-Den *et al.*, (2021) also found that community pharmacists with more experience are more comfortable with obtaining the medical history of patients with anxiety.

Community pharmacists are well-placed to identify people at risk of mental health crises and screen for mental illness (El-Den *et al.*, 2021). Mental health screening by community pharmacists can increase the chances of early detection of mental health conditions, which may result in early intervention. Interestingly, a minority of community pharmacists performed this essential service. This is a concern given that most patients consider community pharmacies as their first point of call. This could result in a missed or late diagnosis. According to O'Reilly *et al.*, (2014), the low screening rates may be due to a lack of screening material, workload, insufficient remuneration, or structural barriers.

In this study, the majority of community pharmacists interacted with other healthcare practitioners regarding their mental health patients, however, most did not notify prescribers of patients who fail to collect their monthly medication. It was found that patients in Canada feel like their community pharmacists are not interacting with their prescribers and they feel that they would benefit from community pharmacists collaborating with other healthcare professionals to help with medication-related issues (Black *et al.*, 2015). A lack of collaboration between community pharmacists

and other healthcare professionals could lead to poor patient adherence. Rubio-Valera *et al.*, (2014) found that monthly meetings between community pharmacists and psychiatrists about enforcing benzodiazepine guidelines led to a notable decrease in the daily use of benzodiazepines for those in prisons.

Community pharmacists are trusted and often the first point of contact for patients, particularly for over-the-counter medication (Melton & Lai, 2017). It is important to note that most community pharmacists in this study provided OTC medication to manage minor mental health conditions which is also within their scope of practice. Noting that most medications used in mental health are highly scheduled, this implies that community pharmacists are comfortable in rendering mental health services within their scope of practice using OTC medication. Given the increase in mental health conditions, this role can be expanded to increase the treatment of minor mental health patients.

Most of the participants referred mental health patients to the relevant healthcare professional if there was a need. This mirrors what was found by Miller *et al.*, (2020). Their study found that only five in seven community pharmacists in studies conducted referred mental health patients with positive screening results to other healthcare professionals. Additionally, other healthcare professionals may not know the OTC medication the patients take which may lead to major drug-drug interactions, thus, the detection, prevention, and referral of potential drug-related problems by community pharmacists is essential in order for mental health patients to receive the best advice and counselling (Ilardo & Speciale, 2020).

A Study by Black *et al.*, (2015) indicated that community pharmacists do not hold any elaborate sessions with patients and their caregivers to give tips for remembering their medications and give more information about their conditions. This is consistent with findings of the present study that only a small minority of the participants held educational sessions with mental health patients and their families. Having educational sessions helps patients' families understand the condition, treatment, side effects, and interactions between pre-existing conditions and their mental health medication (Bulloch & Patten, 2010). The better the patients understand their condition, the better they will comply with their treatment and accept their condition.

Most of the participants in this study, however, educated their patients on interactions between their mental health medication and complementary medicines. This was supported by the study conducted in Australia where community pharmacists reviewed the treatment taken by mental health patients and compared them with the complementary medicines they used (Gisev *et al.*, 2012). El-Den *et al* (2021), stated that community pharmacists provide education to people living with mental health conditions and their caregivers.

More than 50% of participants in this study agreed that they sent prescription refill reminders to mental health patients (Rubio-Valera *et al.*, 2014). Rubio-Valera *et al.*, (2014) found that enforcing community pharmacist-based interventions such as sending prescription refill reminders and notification of prescribers when mental health patients fail to fill prescriptions improves medication adherence. Sending reminders to patients can improve medication adherence and overall management of the patients' conditions.

Lack of training in pharmaceutical care for mental health patients was found to be the obstacle that affects community pharmacists' practice the most. Addressing this obstacle could improve the practice and quality of services rendered to mental patients. O'Reilly *et al.*, (2014), found that high levels of schizophrenia knowledge improved the practice of community pharmacists in mental health management, this mirrors the findings of this study.

4.8.2 Attitude of community pharmacists towards mental health patients

The attitude of community pharmacists in Limpopo Province towards mental health patients was positive with a mean score of 4.41 on a score of 1 to 7. This trend was similarly observed in most of the studies where community pharmacists had positive attitudes towards mental health management (Wong *et al*, 2020 & Black *et al.*, 2015). On the contrary, Sarmorinha *et al.*, (2022) found that community pharmacists adopt a precautionary attitude. A negative attitude from community pharmacists may contribute to increased stigma which may also lead to non-compliance and lack of understanding of mental health conditions.

Maintaining a trusting relationship between mental health patients and community pharmacists is very important as patients who do not have a trusting relationship with their community pharmacists are less likely to listen to advice and would not act on the guidance given to them (Gregory & Austin, 2021). Only 36.4% of the participants agreed that mental health patients were easy to maintain a trusting relationship with while 29.9% disagreed. This shows that a considerable number of community pharmacists in Limpopo Province did not find it easy to maintain a trusting relationship with mental health patients. This is disheartening as a similar trend was observed among Malaysian community pharmacists (Wong *et al.*, 2020). Consequently, this could also affect patients' comfortability in discussing mental health conditions further leading to non-adherence. While 40.2% agreed that mental health patients are not difficult to deal with, it is disappointing that 31.7% disagreed. This does not reflect a positive attitude towards mental health, and it is likely to deter community pharmacists from providing comprehensive mental health services. It was found that mental health patients are usually more difficult to deal with and require special treatment compared to other patients (Samorinha *et al.*, 2022).

Most of the participants in this (49.5%) study agreed that mental health patients easily understood medication instructions. However, Samorinha *et al.*, (2022) stated that mental health patients require the pharmacist to be more patient and more elaborative when giving medication information. Furthermore, this study found that most participants (44.8%) agreed that mental health patients were not different from other patients. This is contrary to what Samorinha *et al.*, (2022) found in their study. A considerable number of participants (39.3%) reported that mental health patients present with dangerous behaviour towards community pharmacists while 41.1% were neutral. This is contrary to a study conducted by Black *et al.*, (2015) where more than 75% of the participants stated that mental health patients are not dangerous. If mental health patients are regarded as dangerous towards community pharmacists, they may likely be discriminated against, consequently affecting the quality of services they receive.

Samorinha *et al.*, (2022) found that participants felt anxious or fearful when dealing with mental health patients. The participants further regarded mental health patients

as different from other patients. Interestingly, participants in this study did not fear dealing with mental health patients and did not consider mental health patients to be different from other patients. The fear of mental health patients may prevent community pharmacists from performing some of the roles expected of them.

Generally, communication between the patient and pharmacist is essential to ensure that patients receive appropriate pharmaceutical services (Rubio-Valera *et al.*, 2014). While a previous study by Black *et al.*, (2015) reported that mental health patients do not feel comfortable speaking to community pharmacists, this could be due to mistrust. Participants in this study reported that mental health patients want to speak to community pharmacists. It was found that participants from the Capricorn and Waterberg districts stated that most of their mental health patients did not want to speak to community pharmacists about their mental health conditions. It would be beneficial to investigate the reasons behind mental health patients shying away from confiding in community pharmacists. On the other hand, if community pharmacists depict any negative attitude toward mental health patients, this could result in stigma and discrimination. As a result, mental health patients would barely receive any counselling and non-compliance.

Lack of training in pharmaceutical care practice for community pharmacists and lack of cooperation from mental health patients are the obstacles that contributed the most to the negative attitude of pharmacists towards mental health patients. This was supported by Watkins *et al.*, (2017), who reported that the lack of training negatively impacted community pharmacists' attitude.

4.8.3 Comfortability of community Pharmacists in managing mental health

Low mental health stigma has been shown to be connected with pharmacists' willingness to provide professional pharmacy services to consumers with schizophrenia (Rubio-Valera, 2014). In this study, community pharmacists in Limpopo Province felt comfortable in managing mental health conditions with a mean score of 5.56 on a scale from 1 to 7. If community pharmacists are comfortable, it could lead to an improved attitude and quality of services rendered to mental health patients. This

is contrary to what Shami *et al.*, (2021) found in their study which found that community pharmacists to be uncomfortable with managing mental health conditions. If community pharmacists are uncomfortable with dealing with mental health patients, the patients may receive incomplete information or no information at all regarding their conditions and treatment which may contribute to non-compliance and increased stigma due to lack of knowledge.

It was reported in Malaysia (Black *et al.*, 2015) that most community pharmacists do not find it easy to deal with non-compliant mental health patients. Similarly, this study has found that 44% of the participants did not find it easy to deal with non-compliant mental health patients. Proper counselling and education cannot be furnished if community pharmacists do not find it easy to deal with mental health patients. The majority of the participants who stated that they do not find it easy to deal with non-compliant mental health patients were female. To our knowledge, there have been no studies to assess the relationship between the gender of community pharmacists and their comfortability in dealing with non-compliant mental health patients. However, this could be due to women being more emotionally responsive than men (McRae *et al.*, 2018).

Most of the participants have indicated that insufficient knowledge of mental health conditions and pharmacotherapy were not an obstacle. However, this is contrary to community pharmacists in Malaysia, the USA and Qatar who reported that they do not have enough knowledge of mental health conditions (Wong *et al.*, 2020 & Shami *et al.*, 2021). Most of the participants who agreed that they had enough knowledge of mental health conditions had less than 10 years of experience as compared to those who had more than 10 years of experience. If community pharmacists do not know mental health conditions, this could lead to discomfort when dealing with mental health patients.

Majority of the participants were confident about providing pharmaceutical care to mental health patients and were comfortable discussing signs and symptoms of mental health conditions with patients. A study found that most of the participants reported that they are more interested, comfortable and confident to perform pharmaceutical care for mental health patients (Liekens *et al.*, 2012). Community

pharmacists in Malaysia reported that they had not received enough training during undergraduate training whereas results from this study indicate that pharmacists in Limpopo Province reported that they had received enough training during their undergraduate studies. More than 50% of participants who were less than 50 years of age agreed to having received enough undergraduate training. Differences in the curriculum could have contributed to this. Most of the participants practicing in Capricorn, Sekhukhune, and Vhembe agreed that they had received enough undergraduate training as compared to the other districts. Insufficient undergraduate training could lead to discomfort in rendering mental health services due to a lack of knowledge in the subject.

Most participants in this study reported that they did not attend workshops or CPD programs. Similarly, community pharmacists in other studies have also requested that more continuous training be organised around mental health (Liekens *et al.*, 2012). Workshops and CPD programs are important to keep up with recent knowledge and refreshing knowledge on mental health.

Lack of training in pharmaceutical care practice and lack of patient information or history were the obstacles that contributed to uncomfortable behaviour of pharmacists. Further training on mental health conditions may improve pharmacists' comfortability in providing health care services to mental health patients (Rubio-Valera *et al.*, 2014).

4.8.4 Obstacles faced by community pharmacists when dealing with mental health management.

Community pharmacists in Australia, Canada, Ghana, Belgium, the UK and the US have reported that a lack of knowledge of mental health conditions and pharmacotherapy is an obstacle to their involvement in the management of mental health. They further reported that the lack of training is also an obstacle (O'Reilly *et al.*, 2015 & Watkins *et al.*, 2017). This study, however, found that most community pharmacists in Limpopo Province had enough training and knowledge on mental health conditions and their treatment.

Lack of knowledge in mental health conditions, their treatment, and lack of training could lead to misinforming patients, lack of confidence, and discomfort in rendering

mental health services by community pharmacists. Participants in this study reported that lack of history, uncooperative mental health patients, and lack of screening resources were the obstacles they faced when rendering mental health services. This reflects the findings from community pharmacists in Malaysia who found that mental health patients do not want to cooperate with community pharmacists and that lack of patient history and screening resources affects their practice (Black *et al.*, 2015).

Participants in this study disagreed that lack of initiative was an obstacle, but felt neutral about whether or not lack of signs and symptoms were obstacles. On the contrary, a study in Malaysia also stated that lack of signs and symptoms were an obstacle faced by community pharmacists (Black *et al.*, 2015). Half of the participants disagreed that the lack of signs and symptoms is an obstacle to practice in the Vhembe district.

Time constraints could cause community pharmacists to not properly counsel mental health patients and fear could restrict the level of comfort in rendering this service. Contrary to the findings of a study by Black *et al.*, (2015) where time constraints and fear or discomfort of dealing with mental health patients were obstacles, this study found that most community pharmacists in Limpopo Province do not face these obstacles. The majority of the participants (62.1%) that indicated that they fear dealing with mental health patients were females. It is important to note that females also stated that they did not feel comfortable in dealing with non-compliant patients. This could be explained by the fact that women are generally more emotionally responsive than men (McRae *et al.*, 2018). This may influence their response to difficult situations like dealing with non-compliant patients.

According to this study, community pharmacists' biggest obstacle in practicing mental health management is the lack of training in pharmaceutical care practice in mental health conditions. This largely affects their roles, comfortability and attitude. This is also supportive of the KAP theory which proves that the knowledge and attitude can influence the practice of community pharmacists in mental health management.

3.21. SUMMARY

The chapter provided a detailed description of all the results obtained from the study. The results from the 107 participants were analysed using different methods under SPSS and discussed in comparison with existing literature.

CHAPTER 5

CONCLUSION, RECOMMENDATIONS AND LIMITATIONS

5.1. INTRODUCTION

This chapter summarises the results outlined in the previous chapter. It further highlights a general conclusion from the study and indicates recommendations for future studies based on results obtained. Lastly, the chapter outlines the limitations of the study.

5.2. CONCLUSION

As the burden of mental illness continues to grow, there is a pressing need for community pharmacists countrywide to increase their engagement in providing mental health management services. Community pharmacists, as the first point of contact, have a wide range of skills in medication management, provision of drug information to prescribers, counselling patients about medicines, and facilitating medication adherence strategies in the delivery of mental health care. Community pharmacists in Limpopo Province were found to be involved in roles such as collaborating with other healthcare professionals when it comes to mental health patients, sending prescription reminders to mental health patients, providing OTC medication to mental health patients for minor mental health conditions, educating mental health patients about interactions between their medication and complementary medicines and referring mental health patients to specialists. It is suggested that a failure to fulfil roles in mental health management may affect the attitude and comfortability of both community pharmacists and patients. The withdrawal of either the pharmacist and the mental health patient may then hinder the acquisition of more knowledge and understanding of mental health conditions. However, the attitude of community pharmacists in the Limpopo Province towards mental health patients can be regarded as positive. When community pharmacists have a negative attitude and are uncomfortable with managing mental health conditions, their practice becomes negatively affected. As a result, mental health patients will likely receive poor quality of services which may lead

to increased stigma and ultimately non-compliance. Lack of training in pharmaceutical care, lack of patient information and lack of cooperation from mental health patients were the obstacles found to affect practice, attitude and comfortability the most.

5.3. RECOMMENDATIONS

The following recommendations are made based on the results of the study:

- Training and education should be provided in the form of CPDs or workshops for community pharmacists to refresh and advance their knowledge in the management of mental health conditions. This will also assist in improving the attitude, practice and comfortability of community pharmacists towards mental health patients.
- Community pharmacists in Limpopo Province should be encouraged to build and maintain relationships with other healthcare practitioners. This will help ensure that prescribers are informed of non-compliant mental health patients. Prescribers would also be able to assist the pharmacists in maintaining the necessary patient history which is quite important in managing mental health conditions.
- Screening resources/tools should be provided to community pharmacists. This will assist in monitoring patient progress and identifying signs and symptoms of mental health conditions. Examples of these tools include the WHO-5 Well-Being Questionnaire, the General Health Questionnaire, the Generalised Anxiety Disorder Assessment, the Insomnia Severity Index, the Patient Health Questionnaire (PHQ) for Depression, and the Depression, Anxiety and Stress Scale (Blum *et al.*, 2022).
- Policies and resources should be developed to encourage community pharmacists to increase their engagement in mental health care service provision.
- Similar studies could be conducted in various provinces in South Africa for comparison and to investigate the role and attitude of pharmacists in mental health management at community pharmacies in the whole of South Africa.

5.4. LIMITATIONS OF THE STUDY

This study, for the first time in South Africa, provides insight into the roles and attitudes of community pharmacists in the management of mental health conditions in the Limpopo Province. However, this study had its own limitations. The cross-sectional nature of the study made it difficult to establish the cause and effect of the relationship between the variables. The study responses were online and self-reported. Because of this, the participants may have been biased towards the topic of mental health. Investigative and further research is needed to reveal the relationship between variables.

5.5. CLOSURE

This dissertation has outlined the various roles that community pharmacists play in improving mental health among their patients. These include screening for mental illness, referring patients to additional care, and working in collaboration with other healthcare professionals. Beyond these roles, it is also important for community pharmacists to have a positive attitude toward mental health conditions, their patients, and management. Comfortability of community pharmacists in managing mental health conditions was also assessed in this study. Lastly, the obstacles faced by community pharmacists when rendering these roles were looked at and recommendations were made. In summary, despite the barriers that exist in managing mental health illnesses for community pharmacists, there are various opportunities for community pharmacists to increase their engagement in the provision of mental health care services and ultimately in improving mental health management.

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APPENDICES

Appendix 1:

Annexure 1

Questionnaire

1. Demographics

A. Age

B. Gender

1-Male

2-female

C. Race

1-White

2-Black

3-Colored

4-Indian

D. District

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1-Vhembe 2-Mopani 3-Capricorn 4-Sekhukhune 5-Waterberg

E. Years of experience in community pharmacy.

F. Type of pharmacy you work in.

1-Chain

2-Independent

G. Institution that your degree was obtained at.

2. Roles of pharmacists in mental health patients.

A. I screen patients for mental health signs and symptoms.

1-Never

2-Rarely

3-Sometimes

4-Often

5-Always

B. I review mental health patients' medication every month.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1-Never	2-Rarely	3-Sometimes	4-Often	5-Always

C. I am involved with other healthcare professionals when it comes to mental health patients.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1-Never	2-Rarely	3-Sometimes	4-Often	5-Always

D. I have education sessions with mental health patients and their families.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1-Never	2-Rarely	3-Sometimes	4-Often	5-Always

E. I send prescription refill reminders to mental health patients.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1-Never	2-Rarely	3-Sometimes	4-Often	5-Always

H. I notify prescribers when mental health patients fail to fill a prescription.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Appendices

1-Never 2-Rarely 3-Sometimes 4-Often 5-Always

I. I often provide patients with OTC medication to manage minor mental health conditions.

1-Never

2-Rarely

3-Sometimes

4-Often

5-Always

J. I educate mental health patients about possible interactions between complementary and alternative medications and their prescription medicines.

1-Never

2-Rarely

3-Sometimes

4-Often

5-Always

K. I refer patients to mental health specialists if there is a need.

1-Never

2-Rarely

3-Sometimes

4-Often

5-Always

3. Attitude of pharmacists towards mental health patients.

A. I believe that my own opinions and beliefs about mental health affect my ability to provide proper care to mental health patients.

1-Definitely

2-Probably

3-Maybe

4-Not at all

5-Don't know

B. Mental health patients are easily approachable.

1-Strongly

2-Agree

3-Neutral

4-Disagree

5-Strongly

agree

disagree

C. It is easier to handle patients with mental disorders as compared to patients having other diseases.

1-Strongly

2-Agree

3-Neutral

4-Disagree

5-Strongly

agree

disagree

D. I am not afraid of mental health patients

1-Strongly

2-Agree

3-Neutral

4-Disagree

5-Strongly

agree

disagree

E. All mental health patients are potentially dangerous to themselves and other people

1-Strongly agree 2-Agree 3-Neutral 4-Disagree 5-Strongly disagree

F. Mental health patients do not want to talk to pharmacists about their conditions.

1-Strongly agree 2-Agree 3-Neutral 4-Disagree 5-Strongly disagree

4. Comfortability of pharmacists in managing mental disorders.

A. I find it easy to deal with non-compliant mental health patients.

1-Strongly agree 2-Agree 3-Neutral 4-Disagree 5-Strongly disagree

B. I have enough knowledge on mental disorders.

1-Strongly agree 2-Agree 3-Neutral 4-Disagree 5-Strongly disagree

agree

disagree

C. I have enough knowledge on the pharmacotherapy of mental health conditions.

1-Strongly

2-Agree

3-Neutral

4-Disagree

5-Strongly

agree

disagree

D. I am confident enough to provide pharmaceutical care to mental health patients.

1-Strongly

2-Agree

3-Neutral

4-Disagree

5-Strongly

agree

disagree

E. I feel comfortable asking mental health patients about their knowledge of their conditions.

1-Strongly

2-Agree

3-Neutral

4-Disagree

5-Strongly

agree

disagree

F. I feel comfortable discussing the symptoms of mental health disorders with patients.

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<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1-Strongly	2-Agree	3-Neutral	4-Disagree	5-Strongly
agree				disagree

B. Lack of training in pharmaceutical care practice for mental health patients.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1-Strongly	2-Agree	3-Neutral	4-Disagree	5-Strongly
agree				disagree

C. Lack of pharmaceutical care understanding by patients.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1-Strongly	2-Agree	3-Neutral	4-Disagree	5-Strongly
agree				disagree

D. Lack of initiative.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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H. Lack of cooperation from mental health patients.

1-Strongly

2-Agree

3-Neutral

4-Disagree

5-Strongly

agree

disagree

I. Lack of screening resources

1-Strongly

2-Agree

3-Neutral

4-Disagree

5- Strongly

agree

disagree

J. Lack of signs and symptoms in mental health patients.

1-Strongly

2-Agree

3-Neutral

4-Disagree

5- Strongly

agree

disagree

Appendix 2

CONSENT FORM

PROJECT TITLE: Investigation into the role and Attitude of community pharmacists practicing within Limpopo Province in mental health management.

BY: Miss Ramalepe TD

SUPERVISOR: Mr. Manyama TL CO-SUPERVISOR: Mr. Chanyandura JT, Mr. Nyamazana T & Mr. Tshitake RM

I, _____ hereby voluntarily consent to participate in the project mentioned above. I have been invited to participate in the study. I have had the opportunity to ask additional questions. My questions have been answered satisfactorily and I have been given enough time to decide about participation.

I know that participation is completely voluntary and that I can decide at any moment to decline or withdraw participation, without explanation or prejudice. Any data already obtained about me will be destroyed at my request.

I agree that research gathered for this study may be published provided names or any other information that may potentially identify me/us is not used. I have been informed and I realize that:

1. The study is about the investigation into the role and attitude of community pharmacists practicing within Limpopo province in mental health management.
2. The Ethics Committee has approved that individuals may be approached to participate in the study.
3. The research project, i.e., the extent, aims, and methods of the research, has been explained to me.
4. I will be informed of any new information that may become available during the research that may influence my willingness to continue my participation.

Appendices

- 5. Access to the records that pertain to my participation in the study will be restricted to persons directly involved in the research.
- 6. Any questions that I may have regarding the research or related matters, will be answered by the researcher/s.
- 7. If I have any questions about or problems regarding the study, I may contact the researcher (Miss Ramalepe TD) or Mr. Manyama TM.
- 8. I have been assured that the information obtained from me will remain anonymous and confidential and to be solely used for the purpose of this research.

SIGNATURE OF PARTICIPANT.....

SIGNATURE OF WITNESS.....

SIGNATURE OF INVESTIGATOR

Signed at _____ this ____ day of _____ 20__

Appendix 3

Department of Pharmacy
University of Limpopo
Turfloop Campus
Private BagX1106
Sovenga
0727

The Head of the Department

Limpopo Department of Health

Private Bag X9302

Polokwane

0700

Dear sir/madam

Application for permission to conduct a study in Limpopo Province in fulfillment of the Master of Pharmacy program.

Appendices

I, Ramalepe TD, a final year Master of pharmacy student at the University of Limpopo with my Supervisor Mr. T Manyama, and co-supervisors Mr. Chanyandura JT and Mr Tshitake RM, request permission to conduct research in the community pharmacies in Limpopo Province. The research is about the role and attitude of pharmacists in mental health management at community pharmacies in the Limpopo Province. The study will be conducted within a period of approximately 3 months.

We hope for your positive response regarding this matter.

Yours Faithfully

Ramalepe TD - 201517428

Manyama T

Chanyandura J

Tshitake RM

Appendices



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

TURFLOOP RESEARCH ETHICS COMMITTEE
ETHICS CLEARANCE CERTIFICATE

MEETING: 23 May 2022
PROJECT NUMBER: TREC/97/2022: PG
PROJECT:

Title: The Role and Attitude of Pharmacists in Mental Health Management at Community Pharmacies in the Limpopo Province.
Researcher: TD Ramalepe
Supervisor: Mr TL Manyama
Co-Supervisor/s: Mr JT Chanyandura
Mr T Nyamazana
Mr RM Tshitake
School: Health Care Sciences
Degree: Master of Pharmacy

PROF D MAPOSA
CHAIRPERSON: TURFLOOP RESEARCH ETHICS COMMITTEE

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

Note:

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