

Overview of mental health: A public health priority

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Abstract

Mental health is an integral part of health and it includes an individual's emotional, psychological and social well-being. However, mental health disorders remain underreported and underdiagnosed, particularly in low- and medium-income countries, including South Africa. South Africa carries a huge burden of mental illnesses with the most prevalent being depression, anxiety disorders, substance abuse disorders and mood disorders. People with mental health conditions often face neglect in the healthcare system as well as stigma and discrimination. This has resulted in poor health outcomes, isolation and high suicide rates. In 2013, the South African government adopted the National Mental Health Policy Framework and Strategic Plan in an effort to integrate mental health into its health system and to reduce the mental health treatment gap and burden. This review aims to describe the prevalence, consequences and management of mental health disorders in South Africa, the incidental consequences of mental disorders, as well as the role of pharmacists in mental health.

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Introduction

From the World Health Organization's (WHO) definition of health as *"a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity"*, it is clear that mental health is an essential part of a person's health.¹ The former Director-General of the WHO, Dr Margaret Chan alluded to the fact that *"good mental health enables people to realize their potential, cope with the normal stresses of life, work productively, and contribute to their communities"*.² The importance of mental health has further been emphasised by its inclusion in the United Nations' Sustainable Development Goals, for the post-2015 agenda (see Box I).³

Box I. United Nations Sustainable Development Goals (SDGs) pertaining to mental health³

SDG3: Ensure healthy lives and wellbeing for all at all ages

- **Target 3.4:** All countries should "by 2030 reduce by one-third premature mortality from non-communicable diseases (NCDs) through prevention and treatment, and promote mental health and wellbeing."
- **Target 3.5:** Countries should "strengthen the prevention of substance abuse, including narcotic drug abuse and harmful use of alcohol."
- **Target 3.8:** Countries should "achieve universal health coverage for physical and mental disorders, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all."

Mental health disorders share common features with the major non-communicable diseases as well as infectious diseases such as HIV/AIDS and tuberculosis.⁴ They are all chronic diseases, often co-occur and require continuous management and monitoring.⁴

The WHO considers an integrated healthcare system, catering for the overall healthcare needs of people, as an efficient way of preventing and managing mental disorders and other chronic diseases.⁴

South Africa developed its National Mental Health Policy Framework and Strategic Plan 2013–2020⁵ with the aim of addressing neglected mental health care. This policy framework aimed to realise the integration of mental health care into a comprehensive primary health care (PHC) approach enshrined in the Mental Health Care Act no 17 of 2002.^{6,7} In order to ensure the integration of mental health as outlined in the policy framework, expert committees will be established within the National Health Insurance (NHI) system, to develop guidelines for integrating mental health into PHC where there is limited service provision.⁷

Prevalence of mental disorders

The Global Burden of Disease Study (2010) estimated that 400 million people suffered from depression, 270 million more suffered from anxiety disorders, 59 million from bipolar disorder, and 24 million from schizophrenia, while 140 million people were affected by alcohol and drug disorders.^{4,8} Moving forward in 2016, there were 1.1 billion people living with mental health and substance abuse disorders and in all but four countries worldwide, major depressive disorders ranked in the top ten causes of ill health.⁹ The majority of people living with mental health disorders live in low- and middle-income countries (LMICs) such as South Africa.¹⁰ The high prevalence of mental disorders in LMICs can

be attributed to conflict and trauma, hunger and poverty, poor access to health and social care, and social inequality.¹¹ Despite the high prevalence of mental disorders in LMICs, these countries spend less than 3% of their health budgets on mental health care, even though mental disorders cause 25.5% of the years lived with disability.^{4,12}

In South Africa, neuropsychiatric disorders are ranked third in their contribution to the burden of diseases after HIV/AIDS and other infectious diseases.⁵ In a 12-month survey of mental health disorders in South Africa, the most prevalent mental disorder was anxiety disorder (15.8%), followed by substance use disorder (13.3%) and mood disorders (9.8%).¹³ The prevalence of post-traumatic stress disorder (PTSD) in patients attending PHC clinics in South Africa was as high as 19.9% in the period 2003–2004.¹⁴ During the same period, females were 1.75 times more likely to be diagnosed with major depressive disorder than males.¹⁵ Males are however at an increased risk of developing substance-use disorders.⁵ There has been an increase in the number of cases associated with mental health illnesses reported in the media in South Africa and the burden of mental disorders is emphasised further through its comorbidity with other diseases, including HIV.¹⁴

Social determinants of mental disorders

The social determinants of mental health include income, housing, stress, early childhood experiences, social exclusion, occupation, education level, sanitation, social support, discrimination (e.g. racism), and lack of access to resources.¹⁶ Other risk factors of mental health are violence and persistent socio-economic pressures.¹⁷ The poor and disadvantaged suffer disproportionately from common mental disorders, which lead to low income and employment.¹² A review of population surveys in Europe revealed that poor educational attainment has also been associated with depression and anxiety.⁴

Symptoms of mental disorders

Every mental disorder has its own set of specific symptoms, but there are general signs of mental illness. Box II summarises the common early signs of mental disorders.^{18,19}

Overview of common mental disorders

Post-traumatic stress disorder

Post-traumatic stress disorder (PTSD) is classified as an anxiety disorder. It is characterised by recurrent intrusive recollections of an overwhelming traumatic event.²⁰ This can occur after somebody has been through a traumatic event, referred to as a horrible or frightening situation experienced or witnessed.²¹ During this type of event, the person thinks that their life or other people's lives are in danger.²¹ They may feel afraid or feel that they have no control over what is happening.¹⁹ The pathophysiology of PTSD is incompletely understood.²⁰ However, neuroendocrine studies have linked this disorder to abnormalities occurring in pre-trauma, during trauma and post-trauma. Various neurotransmitters may

Box II. Early signs of mental disorders^{18,19}

- Loss of interest or pleasure in activities that are normally pleasurable.
- Consistently low energy, fatigue and sleep problems.
- Feeling as if nothing matters.
- Persistent sadness or depressed mood and anxiety.
- Marked behavioural changes; neglecting usual responsibilities related to work, school, domestic or social activities.
- Agitated, aggressive behaviour, decreased or increased activity.
- Fixed false beliefs not shared by others in the person's culture/delusions.
- Hearing voices or seeing things that are not there.
- Lack of realisation that one is having mental health problems.
- Using drugs more than normal (including alcohol and nicotine).
- Displaying uncharacteristic emotions.
- Confusion, disorientation, fogginess.
- Persistent thoughts or memories that reappear regularly.
- Current thoughts, plan or act of self-harm/suicide, or history thereof.
- Increased irritability.
- Changes in eating habits accompanied by significant weight loss or gain.
- Difficulty concentrating, and learning.

be involved in the pathophysiology of PTSD, such as serotonin (5-HT), norepinephrine (NE) and glutamate, which are mainly involved in the processing of emotional and somatic contents of the amygdala.²¹ The amygdala, located in the temporal lobe is involved in the fear response and is able to recognise danger signals via the primitive visual pathways. The amygdala also signals the hippocampus to assist the brain in learning and forming new memories.^{21,22}

Generalised anxiety disorder

Anxiety is a distressing, unpleasant emotional state of nervousness and unease. It is often accompanied by physical changes and behaviours similar to those caused by fear.²⁰ Generalised anxiety disorder is characterised by excessive, almost daily anxiety and worry occurring over a period of six months or more about activities or events.²⁰

Generalised anxiety disorder may be associated with PTSD, increased rates of substance abuse and obsessive-compulsive disorder.²³ It is also linked to a significant degree of functional impairment (similar to major depression), poor cardiovascular health and coronary heart disease.²³ Neurotransmitters such as norepinephrine (NE), γ -aminobutyric acid (GABA), serotonin (5-HT), corticotropin-releasing factor (CRF), and cholecystokinin have been linked to the modulation of normal and pathological anxiety states.²⁴

Depression

Major depressive disorder, also known as unipolar depression, is often divided into the following subgroups, based on the characteristics of the disorder¹⁹:

- **Psychotic:** Characterised by delusions, often of having committed unpardonable sins or crimes, of harbouring incurable or shameful disorders or feelings of being persecuted.

- **Catatonic:** Severe psychomotor retardation or excessive purposeless activity, withdrawal or grimacing and mimicry of speech.
- **Melancholic:** Loss of pleasure in nearly all activities, inability to respond to pleasurable stimuli.
- **Atypical:** Brightened mood in response to positive events and rejection sensitivity, resulting in depression overreaction to perceived criticism or rejection, weight gain or increased appetite, hypersomnia.²⁰

The exact cause of depression remains unknown but it has been linked to heredity factors, changes in neurotransmitters such as NE, 5-HT, and dopamine, altered endocrine function and psychosocial factors.²⁵

Mania

A manic episode is defined as ≥ 1 week of persistently elevated, expansive or irritable mood with ≥ 3 weeks additional symptoms such as:

- Exaggerated self-esteem
- Decreased need for sleep
- Greater than usual talkativeness
- Persistent elevation of mood
- Distractibility
- Flight of ideas or increased creativity
- Increased goal-orientated activity

Manic patients are involved in various high-risk and pleasurable activities including promiscuous sexual activities and dangerous sports.²⁰

Bipolar disorder

Bipolar disorder is a mood disorder that is characterised by episodes of mania, hypomania, and major depression.²⁶ The subtypes of bipolar disorder include bipolar I and bipolar II. Patients with bipolar I disorder experience manic episodes and nearly always experience major depressive and hypomanic

episodes. Bipolar II disorder is marked by at least one hypomanic episode, at least one major depressive episode, and the absence of manic episodes.²⁶

Manic episodes involve clinically significant changes in mood, energy, activity, behaviour, sleep, and cognition. Manic speech is typically loud, pressured or accelerated, and difficult to interrupt, and may be accompanied by jokes, singing, clanging and dramatic signals. The duration of manic episodes can range from weeks to months.²⁶

Hypomanic episodes are characterised by changes in mood, energy, activity, behaviour, sleep, and cognition that are similar but less severe than those of mania. Hypomanic speech can be loud and rapid, but generally easier to interrupt than manic speech.²⁶ Table I summarises some of the pharmacological and mental causes of symptoms of depression and mania.

Stigma associated with mental health disorders

People with mental health conditions commonly face stigma and discrimination, which is associated with poor mental health prognosis and increased premature mortality.^{27,28} Stigma associated with mental illness has been described as having worse outcomes than the actual mental illnesses.²⁸ Stigma and discrimination do not only affect people with mental disorders but also their family and caregivers.^{27,28} People in developing countries experience greater levels of stigma and shame than those in developed countries, due to cultural influences and lack of access to mental health awareness education.²⁷⁻²⁹

Stigma addresses three levels, namely, internalised or self-stigma, social or public stigma and institutional or structural stigma.³⁰

- **Self-stigma** results in subjective perceptions of marginalisation and shame leading to low self-esteem, impaired social adaptation, unemployment, alienation, withdrawal from others and suicide.^{28,29,31}
- **Structural stigma** is reflected in policies and practices of health providers that disadvantage mentally ill people resulting

Table I. Pharmacological and mental causes of symptoms of depression and mania²⁰

	Depression	Mania
Pharmacological causes	Antibacterial <ul style="list-style-type: none"> • Amphotericin B • Cycloserine Hormonal therapy <ul style="list-style-type: none"> • Oral contraceptives • Oestrogen therapy Antineoplastic drugs <ul style="list-style-type: none"> • Vinblastine • Vincristine Anticholinesterase insecticides	Psycho-active drugs <ul style="list-style-type: none"> • Amphetamines • Certain antidepressants • Cocaine • Levodopa • Methylphenidate • Sympathomimetic drugs Corticosteroids <ul style="list-style-type: none"> • Hydrocortisone
Mental causes	<ul style="list-style-type: none"> • Alcoholism • Anxiety disorders • Dementia disorder in the early phase • Schizophrenic disorders 	

in limited access to quality health care compared to other illnesses.³² This creates barriers to seeking help, patient safety and adherence to treatment by people with mental health disorders, due to fear of being labelled.^{28,29} Lack of skill and awareness, negative attitudes and therapeutic pessimism by healthcare providers, are the main sources of stigma in health care.^{33,34}

- **Public stigma** is the discrimination of mentally ill persons by the general population which results in internalisation of perceived negative attitudes and beliefs.³² This adversely affects personal relationships, work and education.^{28,28,31}

Interventions to address stigma

Structured interventions that address national and cultural disparities should be identified to reduce stigma towards mentally ill people.^{32,35} Media campaigns that address stereotypes, cultural barriers, biases and myths should be designed to address specific stigmatising behaviours among specific target populations.^{34,35} Platforms that encourage people with mental disorders to share their experiences may be useful in promoting social integration and addressing social discrimination.³⁴ Initiatives that increase health providers' awareness and promote diagnosis and treatment of mental disorders could reduce both stigma and suicide associated with stigma.²⁷ Integration of mental health services into PHC in South Africa is a necessary step towards addressing stigma and discrimination of mentally ill people.³⁵ Counselling of affected families should address how to deal with the different levels of stigma.³⁵

Suicide due to mental health disorders

Suicide is a global health challenge with economic and societal consequences.³⁶⁻³⁸ Over 800 000 suicide-related deaths occurred in 2012 globally with suicide being the second leading cause of death for young people aged between 15 and 29 years.³⁹ The suicide burden is highest in low- to middle-income countries, despite underreporting of suicide cases.³⁹ According to South African Depression and Anxiety Group (SADAG), 21.4% of teenagers have been reported to have considered committing suicide due to various issues.⁴⁰ Approximately 90% of all suicides are attributed to psychiatric illness such as mood disorders, personality disorders, alcohol and substance abuse disorders.³⁶ Severe mental disorders, namely, depression, schizophrenia, delirium, anxiety disorders, alcoholism and bipolar disorder are associated with increased risk of suicide and suicide attempts in comparison to the general population.³⁶⁻³⁸ It is important to note that suicide is 15 times more likely in bipolar disorder patients compared to the general population, with as many as 7–15% of all bipolar sufferers committing suicide.⁴¹

Suicide rates are higher in males and patients with a history of multiple hospitalisations.⁴² The risk of suicide is heightened within the first three months of diagnosis for anxiety and depression, however, it remains elevated for schizophrenia and substance abuse disorders.⁴³ The risk of committing suicide is closely

associated with the severity of mental illnesses as well as the presence of multiple psychiatric co-morbidities.⁴³

Suicide is often underreported in certain societies due to cultural, social and religious stigma.³⁶⁻³⁸ It is also illegal and a sensitive topic in some countries resulting in lack of adequate research and interventions.³⁹ Stigma and discrimination of people with mental illnesses are significant contributors to self-harm and suicide attempts amongst people with mental illnesses.^{44,45} Evidence has shown that individuals who felt excluded from social and work interactions due to mental health issues, were likely to attempt committing suicide.⁴⁴

Suicide prevention

Suicide prevention interventions should be comprehensive, collaborative and take into consideration the complexity of mental conditions.^{39,44} These interventions may include training for health professionals and the community to raise public awareness and reduce stigma.⁴⁰ Suicide prevention strategies should be implemented at population and individual levels and can include restricting access to suicide means (medications, firearms, pesticides, toxic substances), introducing policies that limit alcohol intake, responsible media guidelines and follow-up care for people who attempted suicide.^{39,43} Early diagnosis and treatment of mental disorders should be prioritised as well as strengthening of PHC facilities as primary care providers have frequent interactions with suicidal patients.⁴⁴

Management of mental disorders

The management of mental disorders is complex and requires extensive knowledge from healthcare professionals as well as patience from caregivers. Integrated treatment plans including pharmacological, psychological and social interventions are important for the successful management of patients with mental disorders.⁴⁶ Psychosocial interventions are important in promoting recovery and improving quality of life, while pharmacological treatment remains the mainstay of therapy.⁴⁶

Pharmacological management of mental disorders

A brief summary of the pharmacological classes that can be used in the management of mental disorders is presented in Table II.

Psychological interventions

Psychological interventions focus on the individual and may include cognitive behaviour therapy, psychoeducation, family focused education and supportive psychotherapy.^{15,41,46} Exposure-based, trauma-focused cognitive behaviour therapy is one of the first-line therapies in the management of PTSD.⁴⁶

Social interventions

These aim to improve adherence to treatment, reduce symptoms and limit behaviour that may result in injury. Social interventions may include social skills training, appropriate housing, supported employment and adaptation to life in the community.⁴⁶

Table II. Summary of some treatment modalities for mental disorders^{1,4,41,46}

Mental disorder	Pharmacological management options
Major depressive disorder Post-traumatic stress disorder during pregnancy	Tricyclic and tetracyclic anti-depressants <i>Tricyclics:</i> • Amitriptyline • Imipramine <i>Tetracyclics:</i> • Amoxapine • Maprotiline
Major depressive disorder Bipolar disorder Anxiety Post-traumatic stress disorder	Serotonin reuptake inhibitors • Citalopram • Fluoxetine • Fluvoxamine • Sertraline
Major depressive disorder Post-traumatic stress disorder	Serotonin-norepinephrine reuptake inhibitors • Venlafaxine • Duloxetine
Major depressive disorder Bipolar disorder	Norepinephrine-dopamine reuptake inhibitors (NDRIs) • Bupropion Atypical antipsychotics: • Aripiprazole • Olanzapine • Quetiapine • Clozapine
Major depressive disorder	Monoamine oxidase inhibitors • Tranylcypromine • Phenelzine • Moclobemide
Bipolar disorder, anxiety	Anxiolytics <i>Benzodiazepines:</i> • Lorazepam • Clonazepam
Bipolar disorder	Mood stabilisers <i>Anticonvulsants:</i> • Lamotrigine* • Carbamazepine* • Gabapentin Other • Lithium

*Limited efficacy in the prevention of mania in bipolar II depression

Physical interventions

Electroconvulsive therapy (ECT) is another treatment option available to patients with severe depression who present with psychotic features.¹⁵ In patients with bipolar mood disorder, ECT in combination with mood stabilisers should be considered if symptoms and/or behavioural disturbances are severe or protracted.⁴¹

Integration of mental health care into primary health care

The South African Mental Health Policy aims to integrate mental health care into PHC by introducing several strategies such as⁷:

- scaling up decentralised primary mental health services;
- increasing public awareness regarding mental health;

- promoting mental health in the South African population;
- empowering local communities, to participating in promoting mental wellbeing and recovery within the community; and
- ensuring that the planning and provision of health services are evidence based.

The Lancet Commission (2018) has adopted a staging approach for the classification and treatment of mental disorders that can be used to achieve the strategies outlined by the South African Policy Framework.⁴⁷ The approach is summarised in Figure 1 and is in line with the South African Mental Health policy as it recognises the involvement of the community and all healthcare stakeholders in the management of mental health.⁴⁷ Staging implies that with appropriate treatment and care, along with addressing relevant risk factors or strengthening environments that promote mental health at population level, mental health care is modifiable.⁴¹

In order to incorporate mental health into comprehensive PHC, the South African mental health care policy aims to scale up decentralised integrated PHC services, which will include community-based care, PHC clinic care and district hospital-level care.⁷

Role of pharmacists in mental health disorders

Pharmacists, as the custodians of medicines, are in the ideal position to play an important role in mental health, from the identification, to the support and the management of mental health disorders.⁴⁸ As experts in pharmacotherapy, pharmacists can share a range of skills, knowledge and attitudes with other healthcare professionals within the multi-disciplinary team context to ensure the quality use of medicines.^{47,49} Important contributions of the pharmacist to the multi-disciplinary team are the provision of drug information and the prevention of drug-related problems.⁴⁹ Figure 2 provides an overview of the role that the pharmacist can play in mental health.

A pharmacist can potentially fulfil several pharmaceutical care roles, for patients with long-term or persistent mental illness. These include patient counselling, provision of medication education and advice, adherence monitoring, medication use evaluation, lifestyle modification and inter-professional liaison within the multidisciplinary team.⁴⁹ Within the hospital setting, where pharmacists have access to patients' clinical data, they can work within the multi-disciplinary team to ensure the quality use of medicines aimed at improving the patient's quality of life.⁴⁹ In the community pharmacy and PHC setting, pharmacists are accessible to patients and often the first point of contact for the patient with the healthcare system. This is an ideal opportunity for pharmacists to provide screening services and risk assessment services for common mental health disorders such as depression.⁵⁰ Providing these kind of services can enable pharmacists to identify patients with a suspected mental health problem, refer them for further treatment and act as the link between different areas of care.⁴⁷⁻⁵⁰ Furthermore, community pharmacists can play an important role in mental health awareness and reducing stigma associated with mental health disorders.⁴⁹

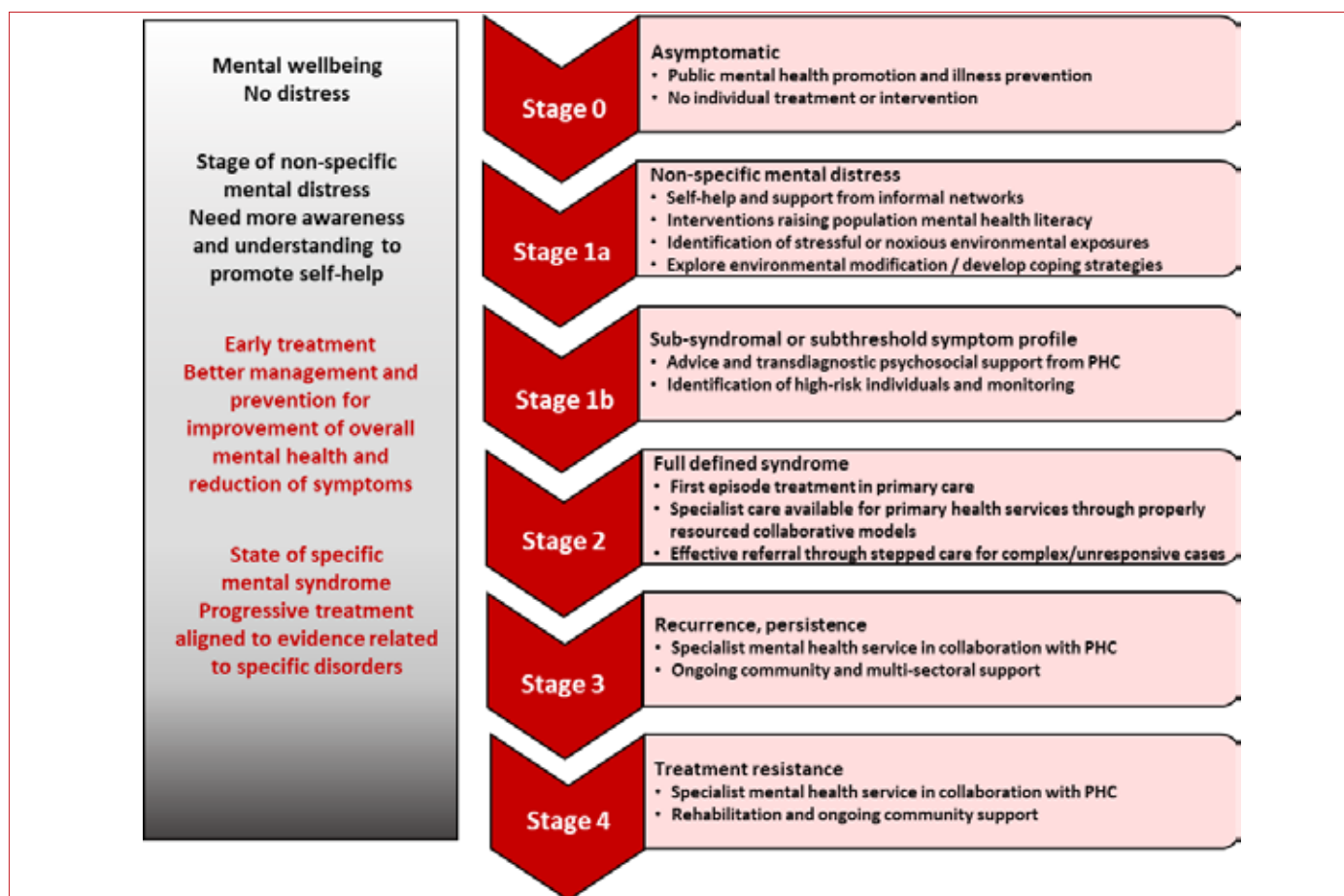


Figure 1. Staging of mental disorders⁴⁷

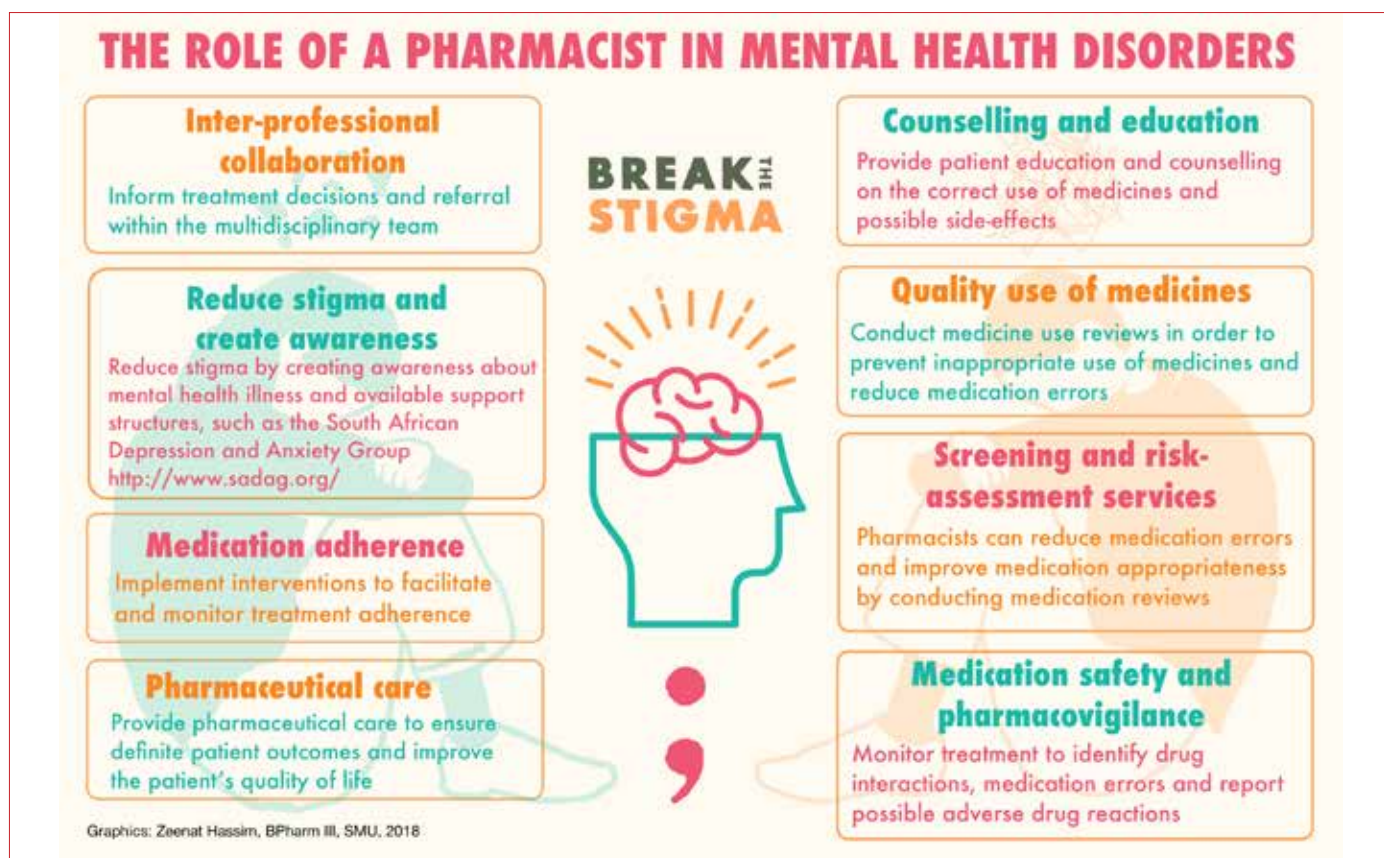


Figure 2. The role of pharmacists in mental health⁴⁸⁻⁵¹

Sub-optimal adherence to medicines used in the treatment of mental health disorders in particular, remains a challenge, and side-effects from antipsychotic medicines are known to have a negative impact on adherence rates.^{47,49,50} Additionally, patients on multiple antipsychotic medicines, and those on other chronic medicines as well, may also experience more side-effects as compared to those on monotherapy.⁴⁷ Pharmacists therefore also play an important role in patient safety, and should monitor patients for adverse drug reactions and prevent possible medication-related problems by providing counselling on the safe and effective use of medication.⁴⁸

Overall, in all the different roles that the pharmacist can play to ensure good mental health care, they should ensure that they are able to communicate effectively with other healthcare professionals within the multi-disciplinary healthcare setting and with patients with mental health conditions.⁵¹ In addition, special attention should be paid to vulnerable populations, such as patients with intellectual disabilities, who are prone to suffer from mental illness.⁵¹

Conclusion

Mental health disorders remain neglected, although they share common features of other chronic conditions. They should therefore be integrated in the chronic disease model within the healthcare system. Universal health coverage will potentially provide an opportunity for addressing neglected mental health disorders in all tiers of healthcare provision. It is imperative that national policies, promoting the diagnosis of, and access to treatment for these conditions, be developed and implemented. Interventions that promote public awareness should be prioritised to address prejudice against mental disorders. The pharmacist can play an important role in the identification, support and management of mental health disorders as they are usually accessible to the public and often the patient's first point of contact with the healthcare system.

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