

Mental Illness in the Western Cape

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Executive Summary

Neuropsychiatric disorders were ranked third, after HIV/AIDS and other infectious diseases as contributors to disability-adjusted life years in 2000 in South Africa. This report reviews available evidence on the burden of mental illness in the Western Cape as well as current interventions and recommendations in order to decrease the burden of mental illness in the province.

The burden of mental illness can be broadly categorised in terms of (i) Prevalence or Incidence (ii) Risk factors (iii) Consequences in terms of disability-adjusted life years and (iv) Social and economic costs. Available evidence from 2004 shows that the Western Cape had the highest 12-month and lifetime prevalence of common mental disorders (39.4% of adults). The prevalence of mental health conditions recorded at primary level health facilities is low. The literature reveals a high unmet need for mental health services both nationally and provincially. Mental health data for children and adolescents is lacking, however this group has numerous risk factors for mental illness. Pertinent downstream risk factors for mental illness include co-morbidities such as HIV as well as non-communicable disease, disorders in women, substance abuse, trauma and violence. Mental illness has a significant direct and indirect impact on economic costs, although quantitative data evaluating the magnitude of this effect is limited.

Following the Burden of Disease Reduction Project in 2007, numerous upstream and downstream interventions were recommended in order to decrease the burden of mental illness in the province. The health sector has implemented various interventions including the formation of the Mental Health Policy Workgroup, the introduction of integrated mental health care at primary care level, including home and community based care, and interventions targeting patients in the perinatal period and in trauma services. Available evidence strongly supports the need for improved integration of mental health services in primary health care and strengthening of community services to adequately reduce the burden of mental illness. Challenges include a lack of capacity due to staff shortages and inadequate availability and allocation of resources. Evidence from large epidemiological studies to quantify the burden of disease as well as cost-effectiveness studies of interventions are required to successfully plan and implement interventions.

Introduction

Mental health has a major impact on health at both individual and population level. Based on the revised national disability-adjusted life-years (DALYs) estimates from the South African National Burden of Disease Study from 2000¹ neuropsychiatric disorders were ranked third, after HIV/AIDS and other infectious diseases, as contributors to the burden of disease, surpassing other non-communicable diseases (NCD's) ¹. . Globally, there is an increasing recognition of the burden of mental illness and need for mental health promotion, captured aptly in the well-known World Health Organization (WHO) phrase “No health, without mental health”².

In 2007, the Western Cape Provincial Department of Health embarked on the Burden of Disease Reduction Project³. A Mental Health Workgroup was established to make recommendations regarding interventions to reduce the burden of mental illness in the province, in order to promote good mental health³. Although a large focus of the report was on interventions addressing the many upstream determinants of mental health, downstream health-service interventions were also proposed. In this report, we briefly assess what is known regarding the current burden of mental illness in the Western Cape as well as service-related interventions that have been implemented in the province.

Burden of Mental Illness

The burden of mental illness can be assessed within 4 major categories, viz.:

1. Prevalence or Incidence of mental illness
2. Risk factors for mental illness
3. Consequences in terms of disability-adjusted life years
4. Social and economic costs

Currently, in the Western Cape, there is limited reliable data on the burden of mental illness. The only routine mental health indicators at Primary Health Care services are:

- Number of mental health clients under 18 years
- Number of mental health clients 18 years and above⁴

This data is obtained primarily from mental health nurses at primary level facilities and is likely to only capture those with serious mental illness who are referred to mental health nurses. Patients with more common, less severe mental illness are not likely to be included in current mental health service data. There are also no indicators on substance use. Data on psychiatric admissions and 90-day readmission rates are collected at secondary and tertiary levels of care. There are limited epidemiological studies quantifying the burden of mental illness in the Western Cape. Available data is summarised below.

1. Prevalence and Incidence

Adults

The **South African Stress and Health Survey (SASH)** conducted in 2004 remains the main source of mental health prevalence data for the Western Cape⁵. The study was part of the WHO World Mental Health Survey initiative and was the first large-scale population-based study of common mental disorders in South Africa⁵. The study showed that the 12-month prevalence of common mental disorders among South African adults was 16.5%, and the lifetime prevalence for any disorder was 30.3%⁵ and the Western Cape had the highest 12-month and lifetime prevalence. Table 1 summarises the Western Cape lifetime prevalence of specific disorders assessed in this study.

Table 1: Lifetime prevalence of common mental disorders in the Western Cape⁵

Disorder	Lifetime prevalence estimates (%) n=448
All disorders	39.4
Anxiety disorders (incl. post-traumatic stress disorder)	18.9
Mood disorders	13.7
Substance Use disorders	20.6
Impulse disorders	4.5

*Confidence intervals not available

When stratified by province, the sample sizes for the SASH study were small and subject to random error. Another limitation of the SASH study was the exclusion of those with psychotic disorders, hence the overall lifetime prevalence of mental disorders was underestimated. Although a smaller proportion of the population is affected by these disorders, it has a major impact on health services. A study conducted at Valkenberg hospital, a tertiary psychiatric facility in the Western Cape, revealed that schizophrenia, bipolar mood disorder and substance-induced psychotic disorders were the commonest diagnoses on admission⁶.

Suicide data is often used as a proxy for mental illness burden since about 90% of people who commit suicide have a psychiatric disorder at the time of their death^{3,7}. Suicide accounted for approximately 11% of all unnatural deaths in 2012⁸. Although 80% of those who committed suicide were male, studies describe a higher incidence of parasuicide among females, hence suicide figures in isolation are a gross underestimation of underlying mental disorders^{3,9}.

The 2007 Mental Health Workgroup recommended that mortality data on injuries may be a more appropriate proxy measure for mental health burden in the Western Cape³. Deaths due to interpersonal violence (IPV) and transport-related injuries are commonly associated with substance abuse⁸. In 2012, IPV was among the top 5 causes of mortality in all Western Cape districts and was the second commonest cause of years of life lost among men and IPV and transport injuries

ranked among the top 10 causes of mortality in all Western Cape districts¹⁰. These data have remained fairly consistent over the preceding three years.

Isaacs et al. estimated the prevalence of non-communicable diseases at 10 primary health facilities in the Cape Metro in 2012¹¹. The overall prevalence of mental health disorders was 6.67%¹¹. This is likely to be an underestimate as the SASH study revealed that only 25% of participants meeting the criteria for a mental disorder sought treatment, due to a low perceived need for mental health care and poor mental health literacy^{5,12}. Mental health service data underestimate the burden as a result of underdiagnoses, and poor access to mental health care due to structural and attitudinal barriers^{12,13}.

Children & Adolescents

The SASH study excluded children and adolescents, and data on the prevalence of mental illness among this group are lacking in the Western Cape. Ensink et. al found that 95% of children in Khayelitsha had witnessed violence, 56% having experienced violence themselves and 22% met the criteria for post-traumatic stress disorder (PTSD) in 1997¹⁴. In 1999, a study conducted in Khayelitsha showed that 15% of children had one or more psychiatric disorders with some degree of impairment¹⁵. Nocturnal enuresis, dysthymic disorder and major depressive disorder were the most prevalent conditions¹⁵.

In 2004, Kleintjes et al. estimated the prevalence of mental disorders among children and adolescents in the Western Cape¹⁶. The unadjusted prevalence of any mental disorder was 17%¹⁶. Estimates were adjusted for co-morbid mental disorders so as not to overestimate the burden of disease. Table 2 summarises prevalence estimates for various disorders.

Table 2: Estimated prevalence of mental disorders among children in the Western Cape¹⁶

Disorder	Lifetime estimated prevalence (%)
Any disorder	17
Attention-deficit hyperactivity disorder (ADHD)	5
Major depressive disorder and dysthymia	8
Generalised anxiety disorder	11
Post-traumatic stress disorder (PTSD)	8
Intellectual disability	3

¹⁶Confidence intervals not available

Suicide data among adolescents show that there is a high prevalence of mental health disorders. In 2011, 11% of non-natural deaths in the 10-14 year age group and 10% of non-natural deaths in the 15-19 year age group were due to suicide⁸. Although some suicides may be impulsive, without a history of a mental health disorder, these figures point to the need for improved mental health among adolescents.

In 2012 Morojele et al. conducted a survey which showed that 41.4% of Grade 8 – 10 learners in Western Cape Provincial Schools were at medium risk and 14.9% at high risk for mental health problems. Female learners were more likely to be at high risk¹⁷.

2. Risk factors

Pertinent downstream risk factors for mental illness include co-morbidities such as HIV as well as non-communicable disease, disorders during the perinatal period, substance abuse and experience of trauma².

HIV

A synergistic interaction exists between HIV and mental illness with depression, anxiety, PTSD and alcohol abuse being the most prevalent disorders among people living with HIV^{18,19}. Depression, anxiety and stressful life events are associated with an augmented course of illness among those with HIV^{18,19,20,21}. Furthermore, mental disorders are associated with poor adherence to antiretroviral treatment (ART)²⁰. Mental illness is also a risk factor for HIV infection due to impaired judgement and insight and associated high-risk behaviour.

Few studies have been conducted regarding the burden of mental illness among individuals with HIV in the Western Cape. In 2004/2005, a study conducted by Myer et al. in Cape Town, showed that 19% of attending routine HIV follow-up care had mental disorders²⁰. Table 3 summarises the disorders assessed in the study.

Table 3: Prevalence of mental disorders among HIV positive patients attending for routine HIV care²⁰

Mental disorder	Prevalence (%) n=465
Depression	14
PTSD	5
Alcohol dependence/abuse	7

Afrikaans speaking HIV positive individuals were more likely to have depression, PTSD and abuse alcohol abuse despite adjustment for other demographic characteristics²⁰. This may be attributed to cultural differences in perspectives around mental health. The prevalence of mental disorders in this population was significantly lower than in the study by Joska et al. in Cape Town, where 42.4% of patients commencing ART had a mild neurocognitive disorder and 25.4% were diagnosed with HIV-related dementia²². This higher rate could be due to the sampling by Myer et al. of routine follow-up attendees, and they may not represent persons not seeking regular healthcare²⁰.

Non-communicable diseases

A similar synergistic interaction exists between non-communicable diseases (NCD's) and mental illness⁷. Mental disorders and other non-communicable diseases have similar risk factors e.g. substance abuse is associated with depression and anxiety disorders and is also a risk factor for cardiovascular disease^{2,7}. Depression and anxiety both increase the risk for hypertension, and depression is also an independent risk factor for stroke and type 2 diabetes².

The recent study by Isaacs et al. revealed that 65% of patients presenting to health facilities with a chronic condition had co-morbidities¹¹. Fairall et al. conducted a pragmatic cluster randomised control trial in the Eden district to evaluate an integrated NCD care package²³. Preliminary results revealed a high level of co-morbidity between depression and NCD's, including hypertension, diabetes mellitus and chronic respiratory disease²³.

Disorders in women

Numerous studies show that women are more likely to have depression and anxiety disorders⁵. The SASH study further showed that women were more likely to have more severe mental disorder⁵.

There is a higher risk for mental health disorders in women during the perinatal period and these disorders are associated with increased maternal morbidity and mortality, and with adverse child health outcomes (Tsai et al.). Perinatal depression prevalence studies in Khayelithsa over the last decade, show the prevalence of depression ranged from 32 to 47% in the antenatal period and 16 to 35% in the postnatal period²⁴. In addition, Hartley et al. identified the following predictors of depressed mood:

- Presence of a partner lowered the likelihood: Odds ratio = 0.88 (95% CI 0.80 – 0.97)

- Intimate partner violence increased the likelihood: Odds ratio = 1.49 (95% CI 1.49 – 1.13)
- Household income <R2000/month increased the likelihood: Odds ratio = 1.52 (95% CI 1.15 – 2.01)²⁵

A recent study conducted among 1145 pregnant women living in 3 townships in 2010 in Cape Town, showed a high prevalence of depression (37%) and alcohol consumption prior to pregnancy recognition (25%)²⁶. Of concern was the large proportion of pregnant women (27%) with multiple risk factors for adverse perinatal outcomes including depression, alcohol use, HIV and a previous low birthweight infant²⁶.

Substance abuse and experience of trauma

Smoking, alcohol and other psychoactive substances are widely recognised risk factors for mental illness, injuries and other non-communicable diseases³. Substance abuse contributes to a large proportion of non-natural deaths in the province, particularly transport-related and unintentional deaths⁸. A rapid assessment of injury morbidity in high violence areas of Cape Town, found that alcohol consumption was reported in 31.8% of all injuries and 45.5% of cases of violence²⁷. Men are more likely to abuse substances^{5,17,27}. Methamphetamine, commonly known as “tik” is the third most prevalent substance abused in South Africa. The extensive use of methamphetamine especially among adolescents is of major concern in the Western Cape²⁸. Methamphetamine causes psychosis, aggression and depression, amongst other chronic side-effects²⁸.

The survey in 2011 by Morojele et al. revealed that 30% of Grade 8 to 10 learners initiated alcohol use before 13 years of age and 24% reported cannabis use, with higher use in the Cape Metro compared to the rural districts¹⁷. The prevalence of methamphetamine use was 2%¹⁷. Social desirability bias may have influenced the results as learners may have been reluctant to admit to illegal or negatively perceived behaviours. The study also found that having repeated a grade at

school was strongly associated with lifetime use of substances such as cocaine, mandrax, ecstasy, heroin and methamphetamine¹⁷.

Studies conducted by Pluddemann et al. in the Western Cape between 2004 and 2006, showed a marked increase in admissions for methamphetamine abuse in Cape Town^{28,29,30}. In 2010, Pluddemann et al. showed that 9% of high school learners had tried methamphetamine at least once²⁸. Use of methamphetamine was associated with higher mental health risk and depression scores. Methamphetamine was the commonest substance abused by patients admitted to specialist psychiatric services in Cape Town, with 31% of patients reporting daily use of methamphetamine³¹. Recent evidence also shows high rates of defaulting and readmission among psychotic patients who use methamphetamine³¹.

Ensink et al. found that 95% of children in Khayelitsha had witnessed violence, 56% having experienced violence themselves and 22% met the criteria for post-traumatic stress disorder (PTSD) in 1997¹⁴. Morojele et al. in 2011 found that more than 60% of adolescent learners reported having witnessed a community member being beaten, 40% had observed a stabbing and 21% had seen someone being shot while 15% had been threatened by a gang and 12% had witnessed forced sexual intercourse in the 12 months preceding the survey¹⁷. These factors contribute to mental health problems including PTSD, anxiety disorders and mood disorders.

3. Consequences of mental illness in terms of Disability Adjusted Life Years

Disability adjusted life years (DALY) are a more appropriate indicator to quantify the burden of mental illness, as it includes both morbidity and mortality by combining years lived with disability (YLD) and the years of life lost (YLL)¹. This is particularly useful when mortality rates are low¹. In 2005, the WHO attributed 31.7% of all years lived with disability to neuropsychiatric conditions including depression, alcohol-use disorders, schizophrenia, bipolar mood disorders and dementia¹ and 5.1% of all DALYs between 1990 and 2013 to alcohol use³².

In South Africa in 2000 neuropsychiatric disorders ranked third in terms of DALYs¹, however no data are available for the Western Cape. It is challenging to derive accurate DALY estimations as there are intensive data requirements. Furthermore, in South Africa, disability weights used for DALY estimations are not context-specific³³. In order to develop more accurate burden measures, experts recommend that disability weights should be empirically assessed in South Africa and other developing countries rather than based on regional data or data from different countries³³.

In 2012 in the Western Cape injuries resulted in 61 893 and 76 653 YLL respectively, accounting for 20% of YLL in the province¹⁰. Road injuries comprised 5.8% of YLL among males and 2.8% of YLL among females¹⁰. Although the other leading causes of death comprise infectious diseases such as HIV and TB, as well as NCD's, all causes of death are intrinsically linked to mental health.

4. Societal/Economic Costs

Limited evidence is available on the social and economic costs of mental illness in the Western Cape. Although DALY's provide some information on societal costs, they do not include indirect societal costs, such as caregiver burnout or, the negative impact on the family especially children.

Economic costs due to mental illness may be divided into direct and indirect costs³³. Directs costs include the cost of medical care and services, whereas indirect costs include lost productivity and unemployment and disability benefits. Indirect costs tend to outweigh direct costs in most studies³⁴.

In the private sector medication costs are high, up to R7287 per annum for patients with schizophrenia. No similar data are available for the public sector³³.

In the South African context, the socio-cultural understanding of mental illness may differ from the biomedical understanding. Consequently, the use of traditional medicine for mental disorders is common³³. The extent of traditional medicine use in the Western Cape is not known.

Staff expenditure contributes significantly to direct costs of mental health care³³. The estimated staff costs for the provision of integrated adult mental health services in primary health care in South Africa is approximately \$44 200 per 100 000 population³³.

Using the SASH study data, Lund et al. estimated the indirect costs of mental illness through lost earnings at \$4 798 (R54 121) per adult per annum with major depression and anxiety disorders, after adjustment for confounding factors including age, sex, substance abuse and level of education³⁴. Projections of the total annual cost of these disorders, in lost earnings were \$3.6 billion in 2003³⁴. This indicates that mental illness has a significant economic impact.

Mental Health Interventions in the Health Services

Introduction

An intervention for an illness may be defined as **“an agent or action (biological, psychological or social) that is intended to reduce morbidity or mortality”** (mhGAP). Interventions may target individuals or populations, and span all levels of prevention viz.

- Primordial prevention – Improvement of lifestyle in healthy individuals
- Primary prevention – Health promotion in people at risk of developing disease
- Secondary prevention – Early diagnosis and treatment of individuals
- Tertiary prevention – Treatment and rehabilitation of those with disease

The 2007 Decreasing Burden of Mental Illness report detailed six core intervention areas for mental illness viz³:

1. Multiple deprivation

Interventions aimed at improving quality of living as well as providing employment and education opportunities. Examples include improved access to quality housing and improved access to social assistance grants.

2. Substance abuse

Population level interventions for substance abuse include the enforcement of alcohol and other drug regulatory legislation, increased costs of alcohol, and reduced availability of alcohol.

3. Mental health services

Interventions that target health facilities across all levels of care, as well as integration of mental health in community-based activities, schools and workplaces.

4. Trauma

Mental health interventions are recommended at trauma facilities, in communities and through occupational groups such as the police and magistrates who work with trauma victims, given the high rate of trauma in the Western Cape.

5. Pre-school education

The development of quality early childhood development (ECD) programmes and teacher-training programmes prevents problems in later life and is thus imperative in reducing the burden of mental illness and other NCD's.

6. Recreation

Involvement in recreational activities from early childhood is considered essential in the prevention and management of negative life events. Interventions include the promotion and support of physical activity and sport, as well as arts, culture and leisure activities, and the protection and promotion of green and natural spaces.

The majority of these interventions address upstream factors associated with mental health, requiring an intersectoral approach in the development of primordial and primary prevention strategies. This report will primarily focus on health service-related

interventions, which are predominantly directed towards secondary and tertiary prevention strategies.

Although the South African Mental Health Care Act (MHCA) mandates the integration of mental health services into the primary healthcare, many barriers exist including:

- The high burden of disease
- Pressured primary health care services where staff have multiple tasks, high patient loads, limited supervision and poor referral networks
- The lack of political will, particularly the absence of mental health on the public health priority agenda³⁵
- The lack of public mental health leadership
- The stigma of mental illness, viewed as a sign of weakness and disgrace¹²
- Lack of knowledge regarding the prevalence and nature of mental illnesses^{36,37}
- Under-resourced health facilities with regards to staff, infrastructure and medication
- Poorly trained nursing staff
- Lack of appropriate screening tools
- Insufficient skilled counsellors, psychologists and psychiatrists to provide effective treatment^{35,36}

Recommended service-related interventions

Various service-related interventions were recommended by the 2007 Mental Health Workgroup. More recently, Petersen et al. conducted a systematic review of research conducted in mental health services in South Africa from 2000 – 2010 and identified key recommendations, many of which overlap with the abovementioned interventions¹⁹.

The Mental Health Gap Action Programme (mhGAP) is a WHO programme aimed at scaling up mental health services, particularly in low- and middle-income countries³⁵. This programme recommends that interventions be delivered as packages across all levels of the health system.

The Programme for Improving Mental Health Care (PRIME) is a group of research institutions comprised of Ministries of Health in five countries (Ethiopia, India, Nepal, Uganda and South Africa), Department for International Development of the United Kingdom and the WHO. In South Africa PRIME is being piloted in North West province. The main aim of PRIME is to provide evidence on the implementation and scaling up of integrated chronic diseases care packages for key mental disorders such as depression, alcohol use disorder and schizophrenia³⁷.

Table 4 categorises the main recommended interventions for the Western Cape. The main requirements for successful implementation of these interventions are:

- **Training** – Intervention requires trainers, comprehensive training manual with guidelines and protocols and appropriate monitoring and evaluation of training.
- **Human resources** – Intervention requires additional human resources.
- **Resource allocation** – Intervention requires dedicated funding.

The final column shows current interventions in place in the Western Cape.

Table 4: Recommended interventions

Recommended interventions	Training	Human Resources	Resource Allocation	Current Intervention
GENERAL INTERVENTIONS				
A. Integration into general medical services at all levels of care particularly in following services:				
<ul style="list-style-type: none"> • Antenatal and postnatal • HIV/AIDS • Trauma • NCD 				
Task-shifting: Training of general medical staff to deliver basic mental health services including screening and interventions for substance abuse and dependences	X		X	PACK
Task-shifting: Employment of new cadres of low level health workers e.g. B.Psych counsellors	X	X		PMHP; Counselling in EC Centres
Ensure appropriate referral networks				
B. Development of community mental health services				
Improve community-based rehab and care facilities			X	
Task-shifting – training of CCW's in mental health screening, counselling and adherence support	X		X	DOH/NPO's - CCW PACK-CCW
Mental health awareness initiatives within the community			X	NGO's e.g. Cape Mental Health
C. Improve infrastructure at all levels of care			X	
D. Ensure psychotropic medication is universally available at PHC clinics			X	
E. Promote culturally appropriate care	X			

F. Services should be provided in African languages, particularly isiXhosa and Afrikaans in the Western Cape	X			
SPECIALIST INTERVENTIONS				
A. Employing dedicated mental health professionals at general hospitals		X		
B. Make provision for specialist and sub-specialist posts		X	X	
C. Provide adequate substance dependence treatment services			X	
D. Increase the number of detoxification facilities			X	
E. Improve integration between mental health and substance services	X		X	
F. Increase the number of addictionology specialists		X	X	

Available evidence as well as legislation strongly supports **integrated primary mental health care packages and strengthening of community services**^{19,38,39,40,41,42,43}. Horizontal integration is particularly suited to the South African setting, given the growing prevalence of co-morbidities such as HIV and non-communicable diseases³³. The SASH study showed that most adults utilised general medical services rather than specific mental health services for mental health problems³⁸. Integrated interventions at primary level facilities could improve coverage for those at risk for mental disorders who access health care services, thereby increasing the impact and cost-effectiveness of interventions as well as improving overall health outcomes by increasing adherence for all chronic diseases.

According to WHO, Home & Community Based Care (HCBC) is a “service provided nearest to the consumer and encourages participation by people, responds to the needs of people, encourages traditional community life and creates responsibilities”⁴⁴. Strengthening of community based services is well supported by the literature⁴⁴ and is an integral part of the National PHC re-engineering strategy and provincial Healthcare 2030 vision^{45,46}.

Task shifting is one of the many methods recommended to integrate mental health within primary health care¹⁹. Task shifting involves the provision of mental health at community and clinic levels using lower levels of health care workers. Primary level services are strengthened by training current medical professionals, community health workers and counsellors in mental health. This approach is less costly than alternative staffing models which rely on specialist personnel^{19,33}. Petersen et al. motivated for the addition of mental health counsellors at primary health clinics who have a 4-year Bachelor of Psychology degree³⁹. The roles of such counsellors would include support to community mental health workers, screening and referral of severe cases and counselling services for post-traumatic stress disorder³⁹. A number of interventions in the Western Cape require additional non-specialist staff. Although these innovations are more cost-effective than the use of specialist personnel, the addition of a cadre of lower level mental health workers would require considerable funding. Training and task-shifting using existing personnel may be the least costly option in resource-constrained settings. A concern is

the over-burdening of already pressured staff and this may lead to poor uptake of task-shifting approaches.

Integrated mental health care in the Western Cape

Numerous interventions are underway in the Western Cape to improve mental health and reduce the burden of mental illness. One of the province's strategic objectives is increasing wellness including the development of community wellness centres.

A major initiative has been the formation of the Mental Health Policy Working Group, spearheaded by the Health Programmes Chief Directorate. This group is currently developing the Mental Health Policy Framework for the province, using a life-course approach. The framework provides evidence-based guidance to improve mental health for each stage of life, at all levels of healthcare.

Service-related interventions are being developed, piloted and rolled out within the province. The main focus is the integration of mental health in primary healthcare as well as the strengthening of community-based services. Several research entities are also active in the province, supporting various aspects of mental health.

1. PACK – Integrated Primary Care

The Practical Approach to Care Kit (PACK) is a comprehensive clinical practice guideline for use by clinicians to diagnose and manage common conditions at primary level in an integrated manner⁴⁷. This approach was initially introduced as Primary Care 101 in the Eden district, and was later changed to the PACK package. The PACK model has been adopted by the Western Cape Department of Health, and is being introduced to other districts. Mental Health is one of the 4 modules within PACK⁴⁷. The mental health module includes diagnosis and management guidelines for:

- Mental Health Care Act – pertaining to voluntary and involuntary admission procedures
- Depression/Anxiety

- Substance abuse
- Psychosis
- Dementia⁴⁷

The evaluation of the PACK Mental Health component is being conducted.

2. Perinatal Mental Health Project

The Perinatal Mental Health Project (PMHP) provides a brief psychosocial intervention for pregnant women^{48,49} by delivering a psychiatry screening, counselling and treatment service to pregnant women. The project was initiated 11 years ago at three sites in the province – Hanover Park, False Bay and Mowbray. At their first antenatal visit women are screened using a tool to identify at risk women and they are then referred to an on-site counsellor. Further appointments coincide with antenatal visits. PMHP counsellors refer women to the psychiatric nurse, social worker or relevant NGO's for further management if deemed necessary⁴⁹.

The PMHP has been validated and adapted over time. Currently a short 3-item questionnaire serves as an accurate, user-friendly mental health screening tool for depression and anxiety among pregnant and postnatal women in the South African setting. This screening tool may be used by lay workers, CHW's, nurses and other healthcare workers^{49,50}.

Uptake has been good with 95% of women agreeing to screening and 58% have been counselled⁵¹. Outcomes 6 – 10 weeks postpartum have been good and 50 – 80% of women reported that their mental problems had improved significantly or resolved since counselling. No formal evaluation of the intervention has been conducted.

There are many advantages to interventions targeting patients at high risk of mental illness such as pregnant women. Such interventions promote mental wellness by increasing the adaptive capabilities of women, improving agency and productivity as well as general living conditions,³⁶ thus reducing expenditure on health. Given these benefits, the PMHP has proposed the inclusion of a mental health counsellor as part of

the Specialist team in the National Department of Health Primary Health Care re-engineering strategy.

Given the success of this model it has been proposed that it be introduced at other antenatal sites. A decision should be made whether the counselling service be provided by existing counsellors and staff members or by additional staff, such as those from PMHP, as this would have significant resource implications.

3. Counselling interventions in Emergency Centres

Substance abuse is an important risk factor for mental illness, violence and trauma. The Substance Use and Trauma Intervention (STRIVE) study, conducted in 2012/2013 aimed to decrease substance abuse and its negative effects among patients attending Emergency Centres in the Western Cape⁵². The cost-effectiveness of two brief interventions in the emergency setting was evaluated by Dwommoh⁵². The two interventions were:

1. Motivational Interviewing (1 session – 30 minutes)
2. Combined Motivational Interviewing and Problem Solving Therapy
(4 sessions – 40-60 minutes, one week apart)

Both interventions were delivered by trained peer counsellors with bachelor's degrees and 45 hours training on the intervention⁵².

The costs evaluated included:

- Overhead costs of emergency department visits
- Direct costs of intervention
- Costs of screening
- Cost of using peer counsellors instead of trained clinical psychologist⁵²

The intervention reduced substance abuse and depressive symptoms among emergency centre patients and the total cost of training and employing peer counsellors was R112 390 per peer counsellor over nine months⁵². The cost of employing peer counsellors was approximately five times less than appointing a trained clinical psychologist to screen and deliver the intervention. The intervention was cost effective. The incremental cost of both interventions together was R160.

Only one cost-effectiveness study has evaluated mental health interventions in the Western Cape. Although the intervention was cost-effective, the feasibility of appointing new cadres of staff at various facilities in the province needs further discussion at managerial level.

Home and Community-based Care Services (HCBC) in the Western Cape

Strengthening of community-based services is an important intervention described in the literature. Community-based services are delivered by Community Health Workers, or Community Care Workers (CCW's), community rehabilitation workers and lay counsellors. CCW's and counsellors could be used in community-based mental health interventions.

In the Western Cape, community-based services are provided through contracts with 90 non-profit organisations (NPOs), employing about 3 500 CCW's, supported and supervised by NPO appointed Professional Nurses in a ratio of approximately 1:20 CCW's⁴⁴. The co-ordination of NPO services, including planning, monitoring and evaluation, is done at district and sub-district level. CCW's currently work 4.5 hours per day⁴⁴.

While initial community-based services were specialised e.g. providing home-based care to persons with TB, HIV or malnutrition, the services are becoming more integrated and comprehensive.

Currently the Western Cape Department of Health contracts non-profit organisations (NPO's) to render various community mental health services, viz.:

- Provide 24 hour residential care

- Provide group homes
- Provide day care facilities
- Facilitate support groups⁴⁴

CCW's can play an important role in the prevention of mental illness at primary, secondary and tertiary levels through health promotion and community awareness initiatives, screening and adherence support. However a 2015 study of CCW's knowledge and attitudes towards the mental health in Mitchell's Plain revealed that CCW's have a poor understanding of mental health and mental illness⁵³. Other challenges experienced by CCW's included inadequate training and limited career pathing options. All CCW's in the study were in favour of mental health training⁵³.

In the Western Cape, a draft service delivery framework on Home and Community Based Care is being developed. Core competencies for CCW's include knowledge on mental health and other NCD's, as well as counselling skills. The document also addresses various areas of concern regarding CCW's such as:

- Selection of CCW's
- Support and supervision
- Minimum qualifications and training needs
- Career pathing⁴⁴

There is variability in the training and functions of CCW's from different NPO's, although the current service package attempts to standardise services provided by NPO's on the HCBC platform, ⁵⁴. The National Department of Health is developing a standardised, comprehensive training qualification for community health workers, however the proposed training qualification incorporates very basic mental health training. The Western Cape Department of Health in conjunction with the University of Cape Town are developing a more detailed mental health training programme for CCW's. Training at a pilot site in Mitchell's Plain is underway.

Both PACK and PMHP propose that CCW's receive adequate training and support to screen, refer and provide basic care for those in psychological distress as part of their routine tasks, within the ward-based outreach team of the PHC re-engineering strategy.

A trial based on the PMHP model, which aims to evaluate task sharing to CCWs for pregnant women with depression is underway⁵⁵..

A pilot project is underway at Stikland Hospital and it includes the development of a 6-week training programme in mental health for CCW's, with a focus on adherence support.

The PACK Community Care Worker (PACK CCW) module to assist CCW'S in adherence support for persons with chronic conditions is being developed⁵⁶. The module is intended. The first module of PACK CCW is being implemented in the Eden district.

These studies will evaluate the role of CCW's and the challenges in mental health services in South Africa. An area of debate is whether CCW's should be trained as generalists, who incorporate mental health into their routine tasks, or as specialists with an exclusive focus on mental health issues in the community (Personal communication, mental health experts). Given the resource constraints a generalist approach appears more feasible, however the expectation to cover multiple health issues in routine CCW tasks may be overwhelming and important aspects of the health encounter between CCW's and community members may be neglected. Studies comparing the cost-effectiveness of generalist and specialist CCW's are required to provide more robust evidence for such debates.

Since the mental health aspect of community-based services are in early developmental phase, many experts agree that adherence support and lay counselling, under appropriate supervision, should be the main areas of CCW involvement in mental health. Screening for mental disease is considered more complex and requires more intensive training. It may be better to introduce such skills once CCW's are comfortable with more basic mental health skills (Personal communication, mental health experts). Currently there are no cost effectiveness studies evaluating community interventions for mental health in the Western Cape.

Other interventions in the Western Cape

Assertive Community Teams (ACT)

The Assertive Community Team (ACT) was launched in the Western Cape in 2007^{57, 58, 59}. Three teams for Valkenberg, Lentegeur and Stikland Hospital were established, comprising of a principal medical officer, chief professional nurse and senior social worker. Patients with mental disorders are assigned to key workers at discharge, who then conduct follow-up home visits as well as assist in facilitating other required interventions. This type of intervention may be particularly effective where community mental health services are inadequate⁵⁸. In high income countries where community services are well-established, ACT has limited impact. In contrast, studies in the Western Cape by Botha et al. in 2010 and 2014, have shown that a modified ACT intervention was associated with a 31.5% decreased rate of readmission, as well as a 55.6% reduction in duration of admission^{58,59}. This has notable cost saving implications. Patients in ACT services also had efficient access to psychiatric beds when requiring admission, thus lowering the pressure on other services e.g. medical wards, where patients are often accommodated while awaiting beds in psychiatry services^{58,59}.

The ACT intervention is both costly and labour-intensive. The available evidence is based on studies with a small sample size, thus limiting generalisability. Given that ACT interventions are less effective in high income countries where standard of care is better, improved community mental health services may eliminate the need for interventions such as ACT.

NGO led initiatives

A number of NGO's provide mental health services in addition to the public mental health services. The Cape Mental Health Unit is one such NGO that provides support to patients with intellectual disability and severe enduring mental health diseases⁶⁰. COMCARE is another organisation that provides care and accommodation to people with psychiatric disabilities through group homes⁶¹.

Research entities

Various other mental health research entities are also active in the Western Cape.

The Emerging mental health systems in low- and middle-income countries (EMERALD) aims to identify barriers within health systems to the effective delivery of mental health services and solutions for mental health service delivery⁶².

One of the primary aims of the **Africa focus on Intervention Research for Mental Health (AFFIRM)** is to investigate cost-effective interventions for mental health disorders, through task-sharing by Community Health Workers in South Africa⁶³.

Project MIND aims to assess capacity and barriers to integration of mental health services into chronic disease care and to compare the cost-effectiveness of both vertically and horizontally integrated models of service integration. The proposed study population is patients on treatment for HIV or diabetes and who are at risk of treatment failure in Cape Town⁶⁴.

Further details on these and other mental health research areas in the Western Cape can be obtained from the Alan J Flisher Centre for Public Mental Health (<http://www.cpmh.org.za>).

Various intervention-based research activities are underway in the Western Cape. It is imperative that feedback from research is presented to provincial stakeholders in order to strengthen policy development for mental health. Good communication and collaboration between research entities and provincial managers is thus essential.

Recommendations

Evidence on burden of mental disease in the Western Cape is limited, and largely outdated. There is a definite need for a **large population-based epidemiological study** to estimate burden of mental disease. Current mental health service indicators are poorly reflective of the true burden of disease. The need for more **valid indicators** or the implementation of **facility-level mental health audits** requires urgent consideration.

The main areas of focus which are feasible and effective are:

- **Strengthening community based services** through training of CCW's
- **Integration of mental health services through task-shifting of existing staff** at PHC, antenatal, postnatal, trauma, HIV and NCD services
- Consideration of **employment of new cadre of mental health staff** at sub-district or facility level who may function at facility-level, while also providing support to community services e.g. B.Psych counsellors

Although employment of additional staff and the use of a task-shifting approach is a more costly intervention, the impact may be greater than utilising current staff, given the pressured working conditions that many health care workers face. **A sub-district study modelling the specific resource requirements and impact of appointing a new cadre of staff may provide more tangible evidence on this matter.**

There is limited evidence in South Africa and other low and middle-income countries regarding cost-effectiveness and economic implications of mental health interventions. **There is thus a dire need for cost-effectiveness studies and economic evaluations of mental health interventions.**

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