

Mental health experiences of public psychiatric healthcare workers during COVID-19 across southern Gauteng, South Africa:

a call for strengthening public mental health care

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Without major and expeditious policy action towards improving public mental health, South Africa awaits yet another mental healthcare catastrophe in the wake of the COVID-19 pandemic.

The global COVID-19 pandemic and South Africa's national lockdown introduced serious threats to public mental health in a society where one in three individuals develop a psychiatric disorder during their life. Studies worldwide have illustrated the acute psychosocial strain and chronic psychiatric sequelae experienced by healthcare employees during the pandemic. Over and above existing systemic constraints, national leaders in public mental healthcare have reported serious challenges in delivering psychiatric services during COVID-19. Despite these early reports on the psychological and healthcare-related consequences of COVID-19, no study has evaluated the impacts of the pandemic on mental healthcare workers and psychiatric facilities in South Africa, nor have the implications for public mental health policy been elucidated. Here we examine the impacts of the COVID-19 pandemic in five specialised and tertiary psychiatric facilities in southern Gauteng.

In-depth qualitative interviews (n=55) were administered to examine the perceptions of psychiatric hospital workers. Survey-based data (n=54) and regression analyses were

conducted to examine associations between COVID-19 healthcare experiences and psychiatric morbidity.

Our study found elevated psychiatric morbidity among hospital staff. Healthcare-related stress during lockdown Levels 3 to 1 was strongly associated with worse symptoms of depression, anxiety, and post-traumatic stress disorder. We also found salient experiences of fear and COVID-19 infection risk, acute resource shortages, and long-term healthcare infrastructural constraints. These circumstances undergirded and exacerbated harmful conditions that posed major threats to patient care, worsened occupational health, and compromised each hospital's capacity to overcome the pandemic.

Without major and expeditious policy action towards improving public mental health, South Africa is at risk for yet another mental healthcare catastrophe in the wake of the COVID-19 pandemic. We offer these findings to highlight the need for mental health promotion among hospital staff, identify constraints in the public mental health system, and provide future direction for mental health policy planning.

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Introduction

The ubiquitous societal impacts of the Coronavirus disease 2019 (COVID-19) pandemic refocused much-needed attention on the severity and disparities of mental health problems in South Africa.¹⁻² South Africa's rates of psychiatric morbidity are among the highest in the sub-Saharan continent³, and behind HIV and other infectious diseases, neuropsychiatric disorders are the third-highest contributor to the total burden of disease in the country.⁴ Despite numerous calls to prioritise national public mental healthcare infrastructures and repeated mental healthcare tragedies fuelled by limited governmental support of such systems, the public mental healthcare system in South Africa remains severely underfunded and overburdened.⁵ The COVID-19 pandemic and subsequent countrywide lockdown took place amid this compromised state of public mental healthcare, along with the ongoing legacies of healthcare inequality and systematic marginalisation from apartheid. The sudden shifts in social life, economic well-being and disease risk not only exacerbated the vulnerable livelihoods of millions of families and introduced new psychosocial and socio-economic stressors, but also caused massive strain on an already overburdened public healthcare system.⁶⁻⁷

Widespread public support for the contributions of healthcare workers during COVID-19 appropriately highlighted the difficult burdens faced by health-sector employees. In addition to coping with the personal impacts of the pandemic and lockdown, especially among lower-earning, entry-level hospital staff, many healthcare workers were also confronted with new, uncertain, and ever-changing work environments. These changes included novel and strict safety protocols (e.g. physical distancing, mask-wearing, increased disinfection), rapid changes in admissions, new case presentations, transient workplace policies, and hazardous work conditions. Resource-constrained healthcare systems have particularly struggled with delivering high-quality services while also adhering to occupational safety guidelines against COVID-19 and protecting the wellness of staff.⁸⁻¹⁰

These contemporary struggles converge with past research that highlights the elevated rates of psychological distress, burnout, and poor physical and mental health that public sector healthcare workers in South Africa have long exhibited.¹¹⁻¹⁴ These factors, along with low staff preparedness, personal protective equipment (PPE) shortages, and limited psychological resources, are major predictors of poor work attendance and lower quality of care among healthcare workers.¹⁵⁻¹⁶ Risky COVID-19 work conditions, compounded with ongoing life stressors and pre-existing institutional constraints, may worsen staff and patient outcomes during a critical period of public health crisis in South Africa.

The widespread impact of the pandemic on health systems has raised critical questions about the preparedness of South African public mental health systems to overcome healthcare emergencies from COVID-19 and plan for future health shocks, including new pandemics. The numerous resource and infrastructural constraints of the South African public mental health system pose numerous threats to the ability of clinics and hospitals to successfully overcome institutional threats such as COVID-19. Despite these well-documented limitations, very few studies document the lived experiences of hospital staff in South Africa, and to our knowledge there are no studies of psychiatric distress among hospital workers during COVID-19, nor studies with thorough qualitative analyses of COVID-19 experiences in healthcare settings in the country. Additionally, the qualitative experiences of mental healthcare workers and the provisioning of psychiatric services are generally understudied and not well represented in the literature, especially in South Africa. To address these gaps, we sought to examine the impacts of the COVID-19 pandemic on the public psychiatric care system among a sample of hospital staff working in psychiatric wards across three tertiary academic hospitals and two specialised psychiatric facilities in the southern Gauteng area.

Methodology

Data from this study come from a series of surveys and interviews conducted with healthcare workers and other hospital-based staff based at three tertiary hospitals in the psychiatry departments of Charlotte Maxeke Johannesburg Academic Hospital, Chris Hani Baragwanath Academic Hospital, and Helen Joseph Hospital, and two specialised psychiatric hospitals (Sterkfontein Psychiatric Hospital, and Tara Psychiatric Hospital) located in Johannesburg and the larger southern Gauteng region.

Qualitative interviews were conducted starting in August 2020 and all data collection ended in March 2021.

Participants completed a series of on-line surveys that queried information on demographics, psychological conditions, and social experiences during the COVID-19 pandemic. Healthcare and occupational stress was assessed using a 21-item, Likert-based scale. The scale was constructed using qualitative interview data from hospital workers and queried experiences related to fear of infection and infecting others, burnout, work demands, and hospital- and system-level deficiencies.¹⁷ Participants completed the measure twice to compare healthcare stress during two timeframes: the first during the first two levels of the South African lockdown (e.g. Level 5 and Level 4, 26 March to 30 May 2020) and the second between Level 3 and Level 1 (31 May 2020 to 31 March 2021). The measure exhibits strong internal consistency ($\alpha = 0.91$).

Interviews were recorded and extensively summarised into field notes, which captured salient ideas and concepts, non-verbal and emotional cues, and quotes. A list of

major themes was then generated to propose codes and definitions, which were then reviewed and revised through mutual agreement across three individuals. The study protocol was approved by the Human Research Ethics Committee at the University of the Witwatersrand, Johannesburg (Clearance number: M190545).

Results

Sample characteristics

A total of 55 hospital staff, which included any employee working in any of the five hospitals during the pandemic between March 2020 to March 2021 (e.g. administration, cleaning staff, consultants, nurses, registrars, students, etc.) completed in-depth interviews about the first wave of COVID-19 (e.g. March to September 2020), and 54 staff members completed the epidemiological survey. Table 1

shows the characteristics of the survey sample. Participants did not necessarily complete both interviews and surveys. The qualitative sample comprised 39 women and 16 men, and the average age was 39. Interviews with hospital staff comprised 33 nurses, nine psychiatrists, four administrative staff, three occupational therapists, two registrars, two psychologists, one medical officer, and one security guard. Our study data were drawn mostly from interviews and surveys with nurses, psychiatrists, and registrars. Table 2 describes the prevalence of stress and trauma experienced by hospital workers in our sample. The prevalence rates of probable psychiatric disorders across the following psychopathologies in our sample are as follows: 24% for depression, 20% for anxiety, 13% for post-traumatic stress disorder (PTSD), and 4% for bipolar disorder. The following cut-off scores were used for the following measures: ≥ 10 (Patient Health Questionnaire-9), ≥ 10 (Generalised Anxiety Disorder-7), ≥ 31 (PTSD Checklist - Civilian Version), and ≥ 7 (Mood Disorder Questionnaire).

Table 1: Descriptive statistics (N = 54)

	n	Mean/Prop.	SD
Age (years)		35.3	8.3
Female		0.77	
Education			
Matric	1	0.02	
Technical university/some university	3	0.06	
Graduated university	17	0.32	
Medical internship and above	32	0.60	
Role			
Administrative staff	1	0.02	
Consultant	14	0.27	
Dietician	2	0.04	
Nurse	6	0.11	
Occupational Therapist	6	0.11	
Psychologist	3	0.06	
Registrar/Medical Officer	14	0.26	
Medical student	5	0.09	
Social Worker	2	0.04	
Hospital during Level 5-4			
Charlotte Maxeke Johannesburg Academic Hospital	3	0.06	
Chris Hani Baragwanath Academic Hospital	8	0.15	
Helen Joseph Hospital	14	0.26	

	n	Mean/Prop.	SD
Sterkfontein Psychiatric Hospital	16	0.30	
Tara Psychiatric Hospital	10	0.19	
Other	2	0.04	
Positive COVID-19 diagnosis	11	0.21	
COVID-19 healthcare stress Level 5-4		44.0	15.8
COVID-19 healthcare stress Level 3-1		33.8	16.4
Perceived Stress Scale		18.1	6.3
Adverse childhood experiences		1.5	1.3
UCLA Loneliness Scale		12.5	3.0
COVID-19 general stress		17.3	9.6
Social support		71.6	11.8
Coping resources		30.0	6.4

Table 2: Healthcare-related stress during COVID-19

Stressor	Mean (Range: 0-4)
Fear of infecting family with COVID-19	3.34
Fear of infecting friends/others with COVID-19	3.08
Burn-out	2.62
Fear of infecting patients with COVID-19	2.55
Fear of contracting COVID-19	2.53
Work demands and pressures were too much	2.42
Afraid of letting my team down	2.26
Seeing news of other healthcare workers contracting COVID-19	2.26
Poor communication from leadership/management	2.21
Not enough PPE	2.21
Inability to balance work and life	2.17
Excessive rumination	2.15
Medication stock-outs/limited medication availability	2.02
Working in an understaffed ward	1.94
Feeling unsafe at work	1.88
Demotivated or lack of motivation to work	1.77
Fear of death	1.74
Too much COVID-19 information	1.70
COVID-19 testing	1.60
Feeling stigmatised as a hospital/healthcare worker	1.25
Limited transportation	0.42

Psychiatric morbidity of hospital staff: risk and protective factors

Predictors of psychiatric morbidity among hospital staff

Table 3 presents the risk and protective factors shaping disease-specific psychiatric symptomatology for depression, anxiety, PTSD, and bipolar disorder. In fully adjusted models, COVID-19 healthcare stress during lockdown Levels 5 to 4 was not associated with any measure of psychiatric symptomatology

aside from the inverse effect of stress on PTSD symptoms (Model 3: $\beta = -0.3$, $p = 0.049$, 95% CI [-0.6, -0.0008]). Greater COVID-19 healthcare stress between lockdown Levels 3 to 1, however, was significantly associated with worse depressive (Model 1: $\beta = 0.18$, $p = 0.005$, 95% CI [0.06, 0.3]), anxiety, (Model 2: $\beta = 0.1$, $p = 0.047$, 95% CI [0.001, 0.2]), and PTSD symptoms (Model 3: $\beta = 0.5$, $p = 0.001$, 95% CI [0.2, 0.7]).

Table 3: Regression models predicting disease-specific psychiatric symptomatology

	Depressive symptoms (PHQ-9)			Anxiety symptoms (GAD-7)		
	β	SE	95% CI	β	SE	95% CI
COVID-19 Healthcare Stress Level 5–4	-0.004	0.07	-0.1, 0.1	-0.004	0.06	-0.1, 0.1
COVID-19 Healthcare Stress Level 3–1	0.2**	0.06	0.06, 0.3	0.1*	0.06	0.001, 0.2
Age (years)	-0.004	0.08	-0.2, 0.2	-0.1	0.08	-0.3, 0.01
Female	1.8	1.6	-1.3, 5.0	2.7	1.5	-0.3, 5.6
Education	-0.1	1.0	-2.2, 2.0	1.6	1.0	-0.3, 3.5
Adverse childhood experiences	-0.2	0.5	-1.3, 0.9	0.8	0.5	-0.2, 1.7
Loneliness	0.2	0.2	-0.3, 0.6	0.2	0.2	-0.3, 0.6
COVID-19 general stress ²⁰	-0.05	0.1	-0.2, 0.1	0.08	0.09	-0.1, 0.3
Social support	-0.06	0.06	-0.2, 0.07	-0.01	0.06	-0.1, 0.1
Coping ²⁰	-0.2	0.1	-0.4, 0.06	-0.04	0.1	-0.2, 0.2
Constant	7.3	10.8	-14.5, 29.1	-13.5	10.0	-33.6, 6.7

* $p < 0.05$, ** $p < 0.01$

	PTSD symptoms (PCL-C)			Bipolar symptoms (MDQ)		
	β	SE	95% CI	B	SE	95% CI
COVID-19 Healthcare Stress Level 5–4	-0.3*	0.2	-0.6, -0.001	-0.02	0.02	-0.07, 0.02
COVID-19 Healthcare Stress Level 3–1	0.4**	0.1	0.2, 0.7	0.03	0.02	-0.008, 0.06
Age (years)	-0.06	0.2	-0.4, 0.3	0.02	0.02	-0.03, 0.07
Female	-0.6	3.4	-7.4, 6.3	-0.04	0.5	-1.0, 0.9
Education	-1.0	2.2	-5.5, 3.5	-0.6	0.3	-1.2, 0.06
Adverse childhood experiences	-0.3	1.2	-2.6, 2.0	0.3	0.2	-0.01, 0.6
Loneliness	0.9	0.5	-0.1, 1.9	0.2	0.07	0.05, 0.3
COVID-19 general stress ²⁰	0.4	0.2	-0.02, 0.8	0.05	0.03	-0.01, 0.1
Social support	0.07	0.1	-0.2, 0.3	0.03	0.02	-0.01, 0.07
Coping ²⁰	-0.4	0.2	-0.8, 0.1	-0.02	0.03	-0.09, 0.04
Constant	22.1	23.3	-24.9, 69.1	0.2	3.2	-6.3, 6.8

* $p < 0.05$, ** $p < 0.01$

Stress and shortage within healthcare settings in the public psychiatric care system

Fear and risk of COVID-19 infection

Nearly all study participants expressed extreme and deep-seated fear of becoming infected with COVID-19. These concerns were driven by unsafe working conditions, the fear of infecting patients and family members, and the fear of death. Hospital staff described feeling the greatest levels of stress, fear and anxiety during the beginning of the lockdown and the peak of the first wave (July to August 2020). Healthcare workers were forced to negotiate numerous risk factors for COVID-19 infection simultaneously, many of which were entirely unavoidable. The most common sources of perceived infection risk were: COVID-19-positive patients, persons under investigation (PUIs) (i.e. those who exhibited COVID-19 symptoms), staff who cared for COVID-19-positive patients, the lack of sufficient PPE for staff and patients, disorganised testing protocols, and working in poorly staffed wards. Some staff also noted that their patients' compromised psychological state, specifically their limited ability to comprehend the severity of the virus and adhere to safety protocols, worsened their fears of infection. As the peak of the first wave approached, the influx of patients with medically related COVID-19 complications necessitated psychiatric nurses and clinicians to treat physical pathologies for which they felt inadequately trained.

It was scary and it felt as if the situation of trying to contain the outbreaks in the different parts of the hospital could go out of control very quickly. With regard to patients, there were too many patients to quarantine, and too many PUI patients to try and isolate safely – the numbers were such that our neat plans of having specific areas and specific numbers of beds for quarantine, isolation, etcetera, were totally inadequate in terms of numbers – there were not enough beds in the specially designated areas for these purposes – and it became more a matter of trying to do one's best... (Participant #1, psychiatrist)

Shortage of personal protective equipment

PPE shortage was among the greatest sources of distress for hospital staff. At the onset of the pandemic, psychiatric hospitals lacked many of the essential items necessary for an appropriate COVID-19 response, as these items were not required for psychiatric care, including PPE, oxygen concentrators, and ventilators. Some hospital managers were forced to ration PPE until stock became available, and in the meantime, required wards to motivate for PPE and selectively sourced PPE to high-risk wards. This led to extreme frustration and other negative feelings and experiences (unfairness, unhappiness, moral injury) among healthcare workers. One nurse feared asking for more masks when hers broke. Other frontline workers described having to re-use masks and withhold masks from patients to conserve stock. Nurses described that wards were not always fumigated after COVID-19-positive patients were transferred. Facilities also lacked adequate resources for testing and screening.

These tensions heightened when healthcare workers were placed in high-risk occupational environments (e.g. working with PUIs, COVID-19-positive patients) and when nurses saw higher-level managers and administrators, who had little interaction with COVID-19 patients, donning better equipment (e.g. N95 masks). As a result, healthcare workers directed their disdain for their occupational conditions towards managers and the government. While PPE became readily available a few months into the pandemic, these negative feelings stayed with some healthcare workers, who noted their continual anger and disdain over the lack of equipment months after the PPE shortage had been resolved.

I am so angry with them... I am still angry with them. Other institutions don't have PPE, and... they do come in contact with people with COVID. It's not really safe for us. (Participant #2, nurse)

Staff shortages and redeployment

Before the pandemic, hospitals already faced major resource constraints such as staff shortages, long patient waiting lists, medication stock-outs, full bed capacities, infrastructural problems, and budget shortages for general operational issues. The sharp rise in symptomatic and COVID-19-positive cases during the peak of the first wave resulted in numerous workers having to quarantine or take sick leave, leaving many wards short-staffed. Staff shortages affected nearly every level of the hospital workforce – nurses, safety officers, medical officers, registrars, and consultants – and were strongly associated with burnout. Some participants who were forced to quarantine after becoming symptomatic or contracting COVID-19 expressed deep guilt and moral injury for placing extra work on their colleagues.

I: *Did you ever feel that there was a time when you were burnt out?*

P: *Yes... it was just too much. I think during the Level 5, I think most of the time, I was just dragging myself to come to work. It was just too much. I just felt very demotivated, demoralised, because of the numbers that were going high, especially of the staff members. And I'm still really, you know, required to make sure that patients are well looked after, even though the nurses have gone on either isolation because they have tested positive or they've gone on quarantine because they were in close contact with people who have tested positive. So it was very, very, very tough... I think, yes, I have felt burnt out before. (Participant #3, nursing manager)*

Staff frequently worked overtime and faced heavy workloads. For instance, registrars in one hospital were tasked to treat COVID-19 patients, which placed more strain on their original ward placements and limited their psychiatric training. One psychiatrist described an instance where every nurse in a single ward was infected with or affected by the virus. Healthcare workers were frequently allocated to different wards and expected to provide services that they were not adequately trained to deliver. The redeployment of staff to new units and mandatory testing procedures led to adverse

reactions among staff, including anger, passive-aggressive attitudes, complaints, and absenteeism. Limited staff numbers also prevented available working staff from taking leave. Over time, some hospitals instituted a shift-based, rotational work schedule to cover staff shortages, lessen exposure risks, and allow remote working to alleviate staff pressure, which proved effective.

Limited space for COVID-19 patients and chronic infrastructural constraints

The limited availability of space to manage COVID-19 patients and PUIs also posed massive issues for healthcare employees and were symbolic of broader infrastructural problems in the public psychiatric health system. One psychiatrist described the infrastructural constraints through the shortages of beds at his facility, highlighting that a large portion of hospital beds were not available for use despite there being enough space to hold more patients. While management teams were tasked with organising separate wards to monitor symptomatic patients and treat COVID-19 patients, nearly all hospitals lacked the space to construct new wards for such patients. As one psychiatrist described: “The ward designated to be the ward for confirmed cases had missing ceiling panels in one of its two dormitories.” Before space became available, PUIs awaited their results before entering the ward with other, non-symptomatic patients, thus leaving everyone in the ward at risk if the patients did have the virus. To remedy this, clinical teams closed a handful of wards to create space for quarantining, monitoring, and treating COVID-19-positive patients and PUIs, which resulted in some hospitals temporarily discontinuing vital services.

Separating symptomatic and non-symptomatic patients into separate wards continued to be an issue over time due to physical constraints. Overcrowded wards also resulted in extended wait times in casualty departments and the need to physically restrain uncontrollable patients, potentially exposing other patients to COVID-19. At times when hospitals were at or over capacity, hospitals were forced to turn away patients at the casualty department. One hospital discontinued hospital admissions in July/August 2020. Barriers to optimal service delivery among healthcare staff changed throughout the pandemic, but the main obstacles remained consistent: lack of PPE and beds, poor mental health among staff, limited space to quarantine patients, and a lack of telephones, Internet access, and cell-phone data for consultations and psychotherapy. Most of the risk factors for contracting COVID-19 described here stem from the systematic resource and infrastructural limitations in the public mental healthcare system. Speaking on this situation, a participant shared:

We were not prepared... Our primary general medical support was at [nearby public hospital] which is about a 30-minute drive away. EMS [Emergency Medical Service] response times were poor in general, looking at our history and experience with them. We had no ward spaces which were immediately available for use for COVID-19-

related use – we were already struggling to adequately accommodate our usual patient population and to admit new referrals. In my mind, as things were at that time, we were not in a position to be able to handle a situation such as a pandemic or a major public health emergency. (Participant #4, psychiatrist)

Discussion

In this study of the impacts of the COVID-19 pandemic in the public mental health system in southern Gauteng, we found elevated levels of psychiatric morbidity among hospital staff and exposure to a wide array of risks for poor physical and mental health outcomes. Our qualitative analyses corroborate these quantitative findings, which found that stress from healthcare experiences during COVID-19 between lockdown Levels 3 and 1, but not Levels 5 and 4, was associated with worse depression, anxiety and PTSD symptomatology among hospital staff. Furthermore, our data highlight the long-term resource and infrastructural constraints in the public psychiatric care system, which both undergirded and exacerbated harmful conditions that worsened occupational health and safety as well as the efficacy of psychiatric service delivery during the COVID-19 pandemic.

The strong associations between COVID-19 healthcare stress during Levels 3 to 1 and worse depressive and PTSD symptoms highlight the heavy mental health burdens of healthcare delivery during COVID-19. These trends corroborate larger findings in the literature which show increased risks of psychiatric disease among healthcare workers during COVID-19 worldwide.¹⁸ These results highlight a sobering irony: that those who care for patients afflicted with psychiatric disease may also be experiencing their own psychological challenges. Interestingly, we also find that COVID-19 healthcare stress during Levels 5 and 4 was associated with lower PTSD symptoms, but not among other psychiatric outcomes. We caution against the wider application of this finding on PTSD symptom outcomes due to our limited sample size. Additionally, while surveyed hospital staff reported moderate to high levels of coping behaviour and social support, both variables did not have protective effects against poor psychiatric outcomes. Amid a culture of concerning mental health stigma and low utilisation of mental healthcare among healthcare workers¹⁹ on top of the heavy demands of public psychiatric care, hospital staff's current conditions and future psychiatric prognoses must be ameliorated.

Systematic resource and infrastructural constraints across the five psychiatric facilities posed major threats to patient care, occupational health and safety, and each hospital's ability to overcome the COVID-19 pandemic. While most of these problems – such as the shortage of PPE – were at their worst during the onset of the pandemic, many issues unfortunately remain unresolved. These problems include

medication stock-outs, long waiting lists, limited physical infrastructure for more ward space and beds, and human resource availability. Furthermore, in addition to little to no implementation of the outdated 2013–2020 National Mental Health Policy Framework and Strategic Plan, the chronic underfunding of the public mental healthcare system has produced these systemic failures in the public mental health system – all resulting in the 92% treatment gap for mental disorders, epilepsy, and intellectual disorders.⁵ Without major and expeditious policy action towards improving public mental health, for which researchers, clinicians, and advocates have long called, South Africa awaits yet another public catastrophe in the mental healthcare system to occur in the wake of a lasting global pandemic.

These analyses are not without limitations. The robustness of our survey-based study results was limited by our small sample size. Additionally, we did not test the validity of our surveys on COVID-19 healthcare experiences due to the novelty of the conditions of the pandemic. Finally, our qualitative results utilised detailed interview summaries rather than verbatim transcriptions of discussions, which may have excluded additional content from the interviews.

In summary, we highlight the importance of these findings given the limited literature on the experiences of psychiatric healthcare workers and the conditions of mental health facilities in South Africa. Healthcare workers and psychiatric facilities are key agents in promoting mental health equity in South Africa, and greater monitoring of the public mental healthcare system through consistent research is needed to identify problems, evaluate solutions, and implement effective interventions.

Conclusions

In this mixed-methods analysis of the mental health impacts of the COVID-19 pandemic among psychiatric healthcare workers, we found elevated psychiatric morbidity among hospital staff, and strong associations between healthcare-related stress during Levels 3 to 1 of the lockdown and worse depressive, anxiety, and post-traumatic stress disorder symptoms. We also found salient experiences of fear and COVID-19 infection risk, acute resource shortages, and long-term constraints in healthcare infrastructure, which compromised each hospital's capacity to manage the pandemic. We offer these findings to highlight the need to prioritise the mental health of hospital staff, identify intervenable constraints in the public mental health system, and provide future direction for health policy planning. These data may be used as a baseline when monitoring the future burdens of COVID-19 on the well-being of hospital staff, psychiatric service delivery, and the broader state of public mental health in South Africa.

Recommendations

Implement initiatives to improve staff psychological wellbeing and mitigate burnout.

The immediate psychological needs of staff should be identified, regular counselling and listening sessions in conjunction with psychology departments should be organised, and referral pathways for the deeply afflicted should be established. Stigma poses a massive barrier to utilising psychological resources even among psychiatric healthcare workers, and hospital leaders must normalise and model regular mental health hygiene. Hospital leaders must provide immediate mental health services to staff by encouraging the use of existing resources such as hospital wellness programmes, medical aid benefits, non-governmental organisation resources such as confidential helplines, and other psychosocial resources, such as the Healthcare Workers Care Network. Government human resource departments must immediately expedite the hiring of new and more psychiatric healthcare workers and administrators. Offering rotational shift work and remote working options should be considered, with a guided and formal policy in place to alleviate work pressures and allow staff to attend to non-clinical responsibilities (e.g. administrative work, research). Consistent appreciation for the long work hours, struggle and sacrifice of hospital teams should be shown.

Maximise hospital preparedness for future healthcare emergencies.

A disaster-preparedness protocol should be developed and/or updated to use during future health emergencies or pandemics. Areas of need should be identified in the plan, and individuals who ensure that all resources and competencies are obtained should be mobilised and trained. Representatives from all levels of hospital operations should be involved in hospital pandemic response initiatives, including logistical planning, decision-making processes, staff communication, infection control, health promotion among staff, and evaluations. Staff shortages can be mitigated by implementing rotational shift-work and drawing on available temporary staff employment. Psychosocial support groups should be developed before deployment and emergency counselling services should be offered to staff during deployment.

Combat challenges to service delivery in the public mental health system.

Numerous resources for resource and infrastructural development are necessary to combat the many challenges to service delivery during the COVID-19 and future pandemics. These include increased funding to eliminate medication stock-outs, long waiting lists, staff shortages, and limited physical infrastructure for more ward space and beds. National and provincial governments must guarantee the implementation of and adherence to the most recent National Mental Health Policy Framework and Strategic Plan. Evaluations of such changes are also necessary to measure progress and ensure accountability.

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