

# Forensic state patients at Sterkfontein Hospital: A 3-year follow-up study

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**Background.** State patients are individuals who have been charged with offences involving serious violence and who have been declared unfit to stand trial and/or who are not criminally responsible because of their mental illness or defect. They are referred by the courts for treatment, rehabilitation and indefinite detention at a forensic psychiatric facility. However, many of these state patients may ultimately be released back into the community. As these individuals may be considered a high-risk group, their rates of relapse and recidivism are of importance. There is a paucity of South African literature on the long-term outcome of state patients.

**Objective.** To describe the profile of state patients, and to examine their outcomes after 3 years, including recidivism rates.

**Methods.** A descriptive, retrospective study of the clinical records of 114 state patients admitted to Sterkfontein Hospital in 2004 and 2005 was conducted, and their profile and 3-year outcomes were determined.

**Results.** The majority of state patients were male, single, unemployed, had a past psychiatric history (59%), and substance abuse history (71%). A third reported a past criminal history. The most common offences were assault with the intention to do grievous bodily harm (19%), rape (18%) and murder (13%). Psychotic disorders represented the most common diagnostic category (69%), with schizophrenia being the most frequent diagnosis (44%). Most state patients had been found unfit to stand trial (96%) and not criminally responsible (89%). At the end of the 3-year follow-up, the majority were in the community (69%), of whom most (72%) were out on leave of absence (LOA), while a quarter had absconded and a minority were reclassified (3%). Most absconders (83%) were state patients who had not returned from LOA. The recidivism rate was 4%.

**Conclusion.** Most state patients were out in the community at the end of the 3-year period. The following recommendations are suggested: improved community psychiatric services, especially for those diagnosed with psychotic disorders and mental retardation, with a focus on improving treatment adherence and early detection of treatment defaulters; improved substance abuse rehabilitation programmes and community facilities, as well as strengthening of systems that manage absconders.

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In South Africa (SA), forensic psychiatric units offer forensic observation for defendants referred from the courts, and provide indefinite detention of mentally ill offenders.<sup>[1,2]</sup> Referral for forensic psychiatric evaluation occurs under section 79 of the Criminal Procedure Act (CPA) No. 51 of 1977. The purpose of forensic psychiatric observation is to determine whether or not the accused has a mental illness or defect, and to determine the accused's competence to stand trial and criminal responsibility (sections 77 and 78 of the CPA).<sup>[1-3]</sup> Based on the findings and recommendations from the forensic observation report, the court then decides the outcome of the case.<sup>[1,2]</sup> When an accused is found unfit to stand trial and/or not criminally responsible because of mental illness or defect, the court may decide to admit the accused to a psychiatric hospital, forensic psychiatric facility or an outpatient facility, for further treatment and rehabilitation.<sup>[1]</sup> State patients are those alleged mentally ill offenders whose charges generally involved serious violence (such as murder, rape and assault with the intent to do grievous bodily harm).<sup>[1]</sup> They are then detained at a forensic psychiatric institution, as per section 42 of the Mental Health Care Act (MHCA) No. 17 of 2002.<sup>[1,4]</sup>

(Prior to December 2004, when the MHCA of 2002 was implemented, state patients fell under Chapter 4, section 28, of the old Mental Health Act No. 18 of 1973.)<sup>[2,5]</sup>

The purpose of referral of state patients to a psychiatric institution is not punishment, rather treatment and rehabilitation, while simultaneously monitoring and managing their potential risk to the community.<sup>[1,2]</sup> Ultimately many state patients may be released back to their communities once they are stable. State patients may be discharged, conditionally or unconditionally, or reclassified as involuntary mental healthcare users (section 47 of the MHCA of 2002).<sup>[1,2,4]</sup>

There is a paucity of SA-published research in the field of forensic psychiatry.<sup>[6-8]</sup> Although there is literature regarding the profile of state patients, very little is found regarding long-term outcomes, particularly the duration of hospitalisation, discharge and reclassification details, absconder rates, and rehospitalisation and recidivism rates following release back into the community.<sup>[6,9]</sup> Moreover, forensic psychiatry in SA faces several challenges. These include a limited number of forensic psychiatric facilities and a shortage of qualified psychiatrists involved in forensic psychiatry in the state sector.<sup>[7]</sup> Sociopolitical and socioeconomic factors, such as high levels of crime, poverty,

inequality and unemployment, and various shortcomings of the often criticised South African Police Service (SAPS) are further challenges, as they promote non-adherence, poor social support and an increase in relapse rates among mentally ill persons.<sup>[10,11]</sup> The aim of this study was to describe the profile of state patients who were admitted to Sterkfontein Psychiatric Hospital (SFH) during the years 2004 and 2005 and to examine their 3-year outcomes.

## Methods

This study was conducted at the Forensic Unit, SFH, in Krugersdorp, Gauteng. It was a retrospective clinical file review of state patients admitted to SFH in 2004 and 2005. A descriptive analysis was undertaken of the profile of these state patients, with an examination of their outcomes after 3 years. The study population consisted of state patients who were admitted between 1 January 2004 and 31 December 2005. All state patients admitted during this period could be included in this study. However, informed consent was required to review the files of any state patient who was still admitted at SFH at the end of the 3-year period, or at the time of data collection. Capacity to consent was ascertained clinically by the principal researcher. Three state patients could not consent as a result of current psychopathology and were therefore excluded from the study. Data were sourced from the admission register, forensic observation report and clinical notes made during the observation period. These records provided the information regarding the profile of the state patients, such as sociodemographics, past criminal, psychiatric and substance abuse histories, the nature of the offence and the findings from the forensic observation, specifically the psychiatric diagnosis, fitness to stand trial and criminal responsibility. Any other relevant documents, including court and police documents, such as the SAPS 69 report, were also reviewed, when available in the records. (The SAPS 69 is an SAPS clearance document, which reflects any previous convictions and details of the offence/s.) Data related to the state patients' outcome after 3 years were obtained from the clinical notes and records compiled during the 3 years following admission as a state patient. The 3-year outcome data included: whether the state patients were

still detained at SFH after 3 years, or if they were back in the community (leave of absence (LOA), discharged, reclassified or absconded); possible reasons for ongoing inpatient admission; and whether any state patients had reoffended during the 3-year study period.

Data analysis was performed by the Department of Biostatistics at the Medical Research Council in Pretoria. It involved basic descriptive analysis, with continuous data represented in terms of means and frequencies for categorical data.

Ethics approval for this study was granted by the University of the Witwatersrand's Human Research Ethics Committee. Institutional approval was also granted by the chief executive officer of SFH. Patient confidentiality was maintained throughout the study.

## Results

A total of 117 state patients were admitted to SFH during the study period. Consent was not obtained from 3 state patients. Therefore 114 state patients were included in the study. Regarding the sociodemographics of the study population, the majority were male (87%), single (80%), unemployed (78%), and had not completed matric (83%). The mean age was 32 (range 14 - 62) years (Table 1). More than half of the state patients had a known past psychiatric history (59%) and the majority had a history of substance abuse (71%). Alcohol was the most frequently abused substance (57%), followed closely by cannabis (47%). A third reported a history of polysubstance abuse (37%). According to the police documents, 14% of state patients had a history of previous criminal convictions and 25% did not. However, for most state patients (61%), the SAPS 69 reports regarding previous convictions were not provided. According to the history from the state patients themselves, 54% denied a past criminal history, 34% reported a positive past criminal history, and in 11% a past criminal history could not be obtained. Of those who reported a past criminal history, 15% had previously undergone forensic psychiatric observation (i.e. prior to the forensic observation for their current admission).

With regard to the alleged offences committed by the state patients, the majority (75%) were charged with a single offence,

18% had 2 charges, and 7% had 3 charges. In keeping with other SA studies regarding mentally ill offenders, the offences were categorised as those committed against persons, those against property and other offences.<sup>[6,9]</sup> The most common category was offences committed against persons (68%). Of the offences committed against persons, violent offences of a non-sexual nature were most frequent (39%), followed by offences of a sexual nature (26%). In terms of the individual offences, assault with the intention to do grievous bodily harm (assault GBH) was the most common offence (19%),

**Table 1. Baseline demographic data**

	<i>n</i> (%)
Sex	
Male	99 (87)
Female	15 (13)
Age (years)	
10 - 19	9 (8)
20 - 29	38 (33)
30 - 39	41 (36)
40 - 49	21 (18)
50 - 59	4 (4)
60 - 69	1 (1)
Marital status	
Single	91 (80)
Married	11 (10)
Divorced/Separated	7 (6)
Widowed	1 (1)
Unknown	4 (4)
Education	
No formal schooling	7 (6)
Grades 1 - 4	11 (10)
Grades 5 - 8	34 (30)
Grades 9 - 11	43 (38)
Grade 12 (matric)	8 (7)
Tertiary	1 (1)
Unknown	10 (9)
Employment status	
Employed	15 (13)
Unemployed	89 (78)
Self-employed	3 (3)
Unknown	7 (6)
Disability grant	
Yes	25 (22)
Not stated	89 (78)

**Table 2. Details of the offence**

Offences (N=151)*	n (%)
Offences committed against persons	103 (68)
Violent, non-sexual	59 (39)
Assault GBH	29 (19)
Murder	20 (13)
Assault	6 (4)
Attempted murder	3 (2)
Domestic violence	1 (1)
Sexual	40 (26)
Rape	27 (18)
Indecent assault	10 (7)
Attempted rape	3 (2)
Other offences committed against persons	4 (3)
Intimidation	2 (1)
Kidnapping	2 (1)
Offences committed against property	38 (25)
Malicious damage to property	9 (6)
Housebreaking	4 (3)
Arson	4 (3)
Theft	7 (5)
Robbery with aggravating circumstances	5 (3)
Armed robbery	4 (3)
Robbery	4 (3)
Attempted theft	1 (1)
Other offences	10 (7)
Possession of unlicensed firearm	6 (4)
(Attempted) Escape from custody	2 (1)
Illegal discharge of a firearm	1 (1)
Contravention of a protection order	1 (1)

\*The offences are expressed as a percentage of the total number of offences (N=151) which were accumulated among the total population of 114 state patients.

followed by rape (18%), and then murder (13%). Rape, attempted rape and indecent assault constituted the offences of a sexual nature against persons (Table 2). Regarding the rape charges, the victim was a minor in the majority of the cases (70%), and for the indecent assault charges, the victim was a minor in all cases.

Psychotic disorders represented the most common diagnostic category (69%), with schizophrenia being the most common diagnosis (44%). Mood disorders were found much less commonly, with bipolar disorder

**Table 3. Psychiatric diagnosis\***

	n (%)
Psychotic disorders	
Schizophrenia	50 (44)
Schizophreniform disorder	1 (1)
'Psychosis'	23 (20)
'Maniform psychosis'	5 (4)
Mood disorders	
Bipolar mania	4 (4)
MDD with psychotic features	1 (4)
Other	
Mental retardation	18 (16)
'Organic brain syndrome'	6 (5)
Dementia	5 (4)
Epilepsy	5 (4)

\*The total number of state patients was 114. However, as some of the state patients had two psychiatric diagnoses, the total number of individual diagnoses, as reflected in this table, was 118 (2 state patients were diagnosed with both epilepsy and dementia, 1 with epilepsy and 'psychosis', 1 with epilepsy and 'organic brain syndrome').

diagnosed in 4% of the state patients, all of whom were in the manic phase of their illness at the time of the offence, and major depressive disorder (MDD) with psychotic features in 1%. Other psychiatric diagnoses included mental retardation (16%), 'organic brain syndrome' (5%), dementia (4%), and epilepsy (4%). (Note that the term 'organic brain syndrome', while not a currently used term according to the *Diagnostic and Statistical Manual of Mental Disorders* (DSM), was noted in the records, and hence captured here) (Table 3).

Regarding criminal responsibility and fitness to stand trial, 89% of the state patients were found not criminally responsible (i.e. unable to appreciate the wrongfulness of their actions, or able to appreciate the wrongfulness but unable to act in accordance with such an appreciation). Eleven per cent (11%) were declared criminally responsible, but unfit to stand trial. One state patient's report stated insufficient evidence to comment on criminal responsibility. The majority of state patients (96%) were found unfit to stand trial. The remaining 4% were found fit to stand trial, but not criminally responsible.

The 3-year follow-up results revealed that almost a third of the state patients (26%) were still inpatients at SFH after 3 years. The most frequent reasons for continued

hospitalisation were current mental state, poor family contact and risk of reoffending. However, the majority (69%) were in the community at the end of the 3-year follow-up period. Of those state patients, the majority (72%) were out on LOA, while a quarter had absconded (25%), a small minority had been reclassified (3%), and none had been conditionally or unconditionally discharged. Regarding the absconders, the majority (83%) had absconded while on LOA (i.e. they had failed to return for review at the end of their LOA period), while the rest (17%) had absconded from SFH itself. During the 3-year follow-up period, 4% of the state patients had died, and 1% had been transferred to another forensic hospital (Figs. 1 and 2). Of the 12 state patients who were unfit to stand trial but criminally responsible, it was found that after 3 years 33% of these state patients had absconded, 33% were out on LOA, 25% were still inpatients at SFH and 8% had died.

Regarding recidivism, 4% of state patients were rearrested and charged with another offence during the 3-year follow-up period. There was no record of reoffending in 90% of the state patients, and in 5% the notes suggested the possibility of involvement in criminal activity, but had no confirmatory notes or documentation regarding any rearrests.

## Discussion

The sociodemographic profile of these state patients was generally consistent with that found in the literature.<sup>[6,9]</sup> The majority of state patients had contact with psychiatric services prior to the alleged offence, which is in keeping with findings from other local and international studies.<sup>[6,12,13]</sup> The rate of positive substance abuse histories in this study population is similar to the findings of another SA study of state patients.<sup>[6]</sup> In SA, alcohol and cannabis are the two leading substances of abuse, which is consistent with the results from this study.<sup>[14-16]</sup> However, the rate of cannabis abuse in this forensic population was much higher than that reported in the general population.<sup>[14-16]</sup> This finding supports the notion that substance abuse rates are much higher in psychiatric patients as compared with the general population.<sup>[15,17]</sup> Substance abuse increases the risk of violent and criminal behaviour, which may partly explain the finding of higher rates of substance abuse in the forensic



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**References:** 1. Fava M, Rush AJ, Thase ME, et al. 15 Years of Clinical Experience With Bupropion HCl: From Bupropion to Bupropion SR to Bupropion XL. *Prim Care Companion J Clin Psychiatry* 2005;7(3):106-113. 2. Stahl SM, Pradko JF, Haight BR, et al. A Review of the Neuropharmacology of Bupropion, a Dual Norepinephrine and Dopamine Reuptake Inhibitor. *Prim Care Companion J Clin Psychiatry* 2004;6(4):159-166. **WELLBUTRIN XL 150/300** extended-release tablets (Reg. No. 41/1.2/0371 & 0372 respectively). 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Arthralgia, myalgia and fever have also been reported in association with rash and other symptoms suggestive of delayed hypersensitivity; blood glucose disturbances; aggression, hostility, irritability, restlessness, hallucinations, abnormal dreams, depersonalisation, delusions, paranoid ideation; seizures, dystonia, ataxia, parkinsonism, incoordination, memory impairment, paraesthesia, syncope; palpitations; vasodilation, postural hypotension; elevated liver enzymes, jaundice, hepatitis; erythema multiforme and Stevens Johnson syndrome; twitching; urinary frequency and/or retention. **Special Precautions:** Discontinue treatment promptly if patients experience hypersensitivity reactions during treatment. Symptoms may persist after discontinuation & clinical management should be provided accordingly. Treatment in renal impairment should be initiated at reduced dosage. 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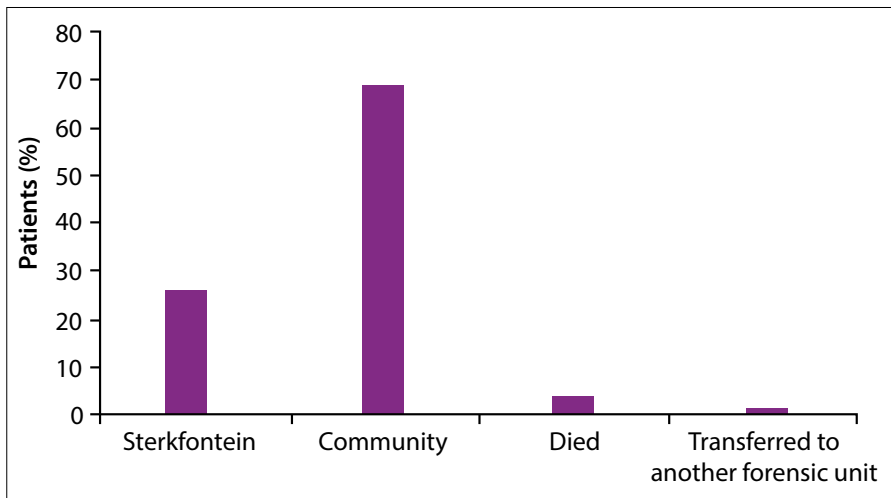


Fig. 1. Total study population, 3-year outcome.

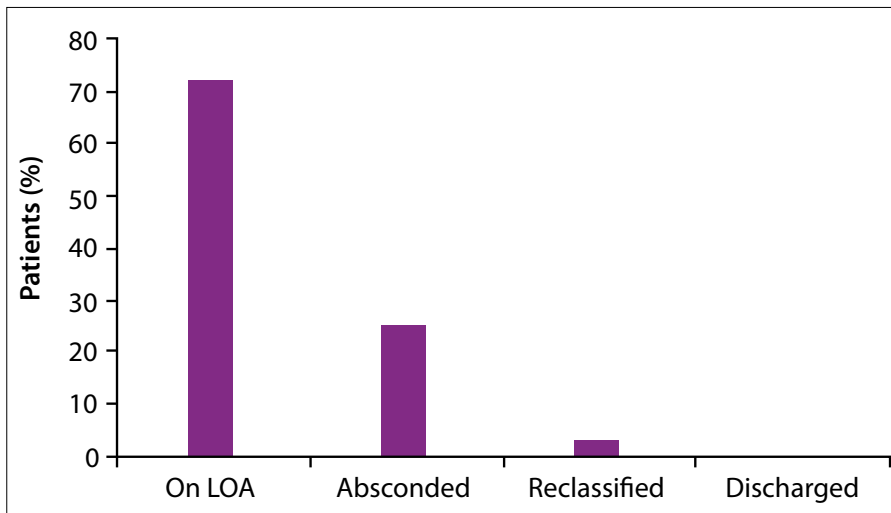


Fig. 2. State patients in the community after 3 years.

psychiatric population, and furthermore, substance abuse may influence recidivism and relapse rates.<sup>[14,17-20]</sup> The combination of a history of violence, serious mental illness and substance abuse or dependence is associated with an almost ten times greater risk of future violence than having mental illness alone.<sup>[20,21]</sup> This should be borne in mind when state patients are eventually released back into the community. Regarding the past criminal histories, results from this study should be viewed cautiously, as police records of previous convictions were not available in the majority of cases. Additionally, limitations such as the possibility of unreliable information obtained from state patients at the time of forensic observation, especially if they were psychotic and unable to give a clear account of themselves, make it difficult to truly assess whether or not the majority

of state patients had prior contact with the criminal justice system. The literature has also not been consistent in its findings in this regard.<sup>[13,22]</sup> However, it has been shown that a previous criminal history may increase the risk of recidivism, and thus becomes important in terms of the ongoing and future risk management of state patients.<sup>[1,23]</sup>

In terms of the details of offences, it was found that the majority of offences were those committed against persons, with property offences occurring less frequently, and this is consistent with findings in the literature.<sup>[6,9]</sup> It is also an expected finding, as state patients are generally those mentally ill offenders who have committed more serious and/or violent offences. Although other SA studies of state patients have found sexual offences to account for the majority of offences committed against persons, in this study,

offences of violent but non-sexual nature were more common than offences of a sexual nature.<sup>[6,9]</sup> This finding is possibly related to differences in crime rates between provinces, as the other two studies were conducted in the Free State. According to SA crime statistics for that period, although the crime ratio (per 100 000 of the population) for total sexual offences was higher in Gauteng than in the Free State, similarly the crime ratio for total contact crimes (crimes against persons) was higher in Gauteng than in the Free State. Consequently, the percentage of total sexual offences to total contact crimes was lower in Gauteng than in the Free State during that period.<sup>[24]</sup> Regarding sexual offences in this study, the finding that the victims were often minors is of concern.

The majority of state patients were diagnosed with a psychotic disorder. Consistent with both local and international literature, schizophrenia was found to be the most common diagnosis.<sup>[6,9,25]</sup> Although 'psychosis' and 'maniform psychosis' are not recognised diagnoses according to the DSM or the *International Classification of Diseases* (ICD) manual, they were the diagnoses provided in some of the state patients' forensic observation reports. It is therefore not known whether or not any of the state patients with a diagnosis of 'psychosis' would have been diagnosed with schizophrenia if strict DSM or ICD criteria had been adhered to. In this study, after schizophrenia and 'psychosis', mental retardation was the next most frequent diagnosis, occurring in 16% of the state patients. Other SA studies have also reported mental retardation as the second most frequent diagnosis in their populations of mentally ill offenders.<sup>[6,9]</sup>

The finding that less than a third of state patients were still inpatients at SFH after 3 years, with the majority (69%) back in the community, is in keeping with the trend towards deinstitutionalisation, where the aim is to treat and reintegrate mentally ill offenders back into their communities, with further outpatient treatment and follow-up.<sup>[1,2,7,26]</sup> In the SA context, it should also be questioned whether and/or to what extent overburdened psychiatric state hospitals, as well as the backlog of patients awaiting admission for forensic psychiatric observation, may have contributed to this trend.<sup>[7,27,28]</sup> The most common reasons for state patients remaining inpatients at SFH after 3 years, in this study,

were still considered mentally unstable, a high risk of reoffending, and having poor social support. These findings are similar to reasons described in the literature.<sup>[6]</sup> The fact that a quarter of the state patients who were out in the community after 3 years had absconded is of concern, as they are more likely to be non-adherent to medication and to abuse substances, both factors known to increase the risk of relapse and recidivism.<sup>[18,19,23,29]</sup> Furthermore, a third of the state patients who were declared unfit to stand trial but criminally responsible for their alleged offences, were found to have absconded by the end of the 3-year study period. Although not one of the research objectives, it was considered noteworthy, as these state patients could theoretically have been referred back to the criminal justice system, after having been treated and rehabilitated, to stand trial, and then possibly prosecuted, for charges for which they were considered to be criminally responsible. However, this seldom happens in practice.<sup>[2]</sup>

The recidivism rate, after 3 years, was found to be 4%. Recidivism rates have varied widely in the literature.<sup>[26,30]</sup> It is possible that the relatively low recidivism rate in this study was a product of the relatively short follow-up period. It should also be noted that many of the state patients in this study were already recidivists, in that there was a positive criminal history for many of them. It has been shown that a history of previous arrests for violent crimes is associated with an increased risk of recidivism.<sup>[1,23]</sup>

### Study limitations

The retrospective nature of this study was a limitation, as well as insufficient data in some of the records and clinical files. Clinician's notes did not always state reasons for continued hospitalisation, or specify risk assessment. Recidivism at follow-up visits of state patients on LOA was not always documented. There was a lack of distinction between previous arrests and convictions, as well as a lack of consistent availability of police records, such as the SAPS 69. Information obtained from state patients at the time of observation may not have been accurate or reliable, especially if they were psychotic. Psychiatric diagnoses in the forensic reports did not always conform to diagnoses listed in the DSM or ICD manuals; for example, the terms 'organic brain syndrome', 'maniform psychosis' and 'psychosis' were used as the diagnosis in some of the clinical records. The lack of use of risk-assessment tools was another limitation. The study time period and sample size may also be considered limitations. The results from this study may not be generalisable to all state patients and forensic units in SA.

### Conclusion and recommendations

More than two-thirds of state patients were out in the community at the end of the 3-year period, most of whom were out on LOA. A quarter of these state patients had absconded. Most absconders were state patients who had not returned from LOA. The recidivism rate was 4% after 3 years. However, a large number of patients already had criminal histories prior to their admission as state patients during the study period. Based on the results of this study, the following recommendations should be considered, including improving outpatient community psychiatric services, especially for patients with schizophrenia, other psychotic disorders and intellectual disability, with a focus on treatment adherence strategies and early detection of treatment defaulters. Such strategies have

been described in the literature and include those that address treatment-related factors (e.g. reduced complexity of treatment regimens and the use of depot antipsychotics), patient-related factors (e.g. psychoeducation, reminder schedules, and pharmacy-generated refill reminders), as well as healthcare-related factors (e.g. improved therapeutic alliance between healthcare provider and patients, reduced waiting times, telephone reminders, improved liaison between hospital and outpatient teams).<sup>[31]</sup> Improved treatment adherence would reduce the risk of relapse and recidivism of state patients. Additional strategies include improving other psychiatric community-based services (such as day-care services, residential placement facilities and vocational rehabilitation programmes), substance abuse rehabilitation programmes and community education regarding mental illness. The routine use of risk-assessment tools in forensic facilities is also recommended, to more objectively evaluate the risk of dangerousness and recidivism among state patients, and appropriately manage the risk. Evidence exists in favour of the usefulness of risk-assessment tools, and the use of such tools has already been piloted in other forensic units in SA.<sup>[32]</sup> Systems should also be enhanced or developed to monitor state patients in forensic hospitals and in the community, including those who have absconded. The use of electronic databases, within the healthcare system, may be a way to achieve this. Improved collaboration with the courts and SAPS is mandatory. SAPS 69 reports should be routinely submitted, by the SAPS to the courts, when individuals are referred for forensic observation. There should be complete compliance by the SAPS with regard to promptly locating and returning absconded state patients to the relevant health establishment, as per the MHCA. Electronic databases within the SAPS, which record whether a person is a state patient, may also be useful to help to immediately identify state patients in the community. It is possible that there may occasionally be instances where the SAPS come into contact with state patients without knowing that they are state patients. (For example, the SAPS may be called to assist in transporting an aggressive patient to hospital, or an individual being charged with a minor offence, but then the case is not taken to court, or the individual is released with only a warning.) In such encounters, if these individuals could be identified as state patients, they may then be more appropriately managed, by being referred back to the relevant forensic psychiatric institution, for an evaluation and risk assessment. This may then serve to curtail any further risk of relapse and/or recidivism.

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