Is the seclusion policy of mental healthcare users a necessary evil?

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Background. Seclusion in the psychiatric context is the involuntary confinement of an agitated, unstable person alone in a contained, controlled environment. Differing views on seclusion presents clinicians with an ethical dilemma. Significant morbidity and mortality have been associated with seclusion. No data exist in South Africa on rates of seclusion for psychiatric purposes. Consequently neither the need for seclusion nor alternatives to seclusion have been explored.
Objective. To determine the number of patients secluded over six months, provide a profile of patients that were secluded, and to ascertain the reasons for seclusion.
Methods. A retrospective record review of patients secluded at Sterkfontein Hospital, over a six-month period.
Results. A total of 112 patients were secluded over the six-month period. Users were secluded for a total of 59 415.5 hours and on 4 814 separate occasions. A total of 84.8% of the users secluded were male. The mean age of users secluded was 29 years. Just under half the users (49.1%) were secluded for their own safety and 40% of users were secluded for aggression (either physical or verbal). The most common diagnosis was schizophrenia (31.4%) followed by cognitive impairment (20.6%) and bipolar mood disorder (13.7%). The most commonly used medication was sodium valproate (17%), followed by haloperidol (11%) and risperidone (11%).
Conclusion. Younger male patients with psychosis were most likely to be secluded. More research should be conducted locally to compare seclusion rates and patient profiles so that we may improve seclusion practices.

S Afr J BL 2015;8(1):30-34. DOI:10.7196/SAJBL.358

Seclusion can be defined as the involuntary confinement of an agitated, unstable person alone in a contained, controlled environment.[1] The use of seclusion for patients who are at a risk of harm to themselves or others has been a generally accepted medical practice for many years.[2] Seclusion and restraint are not 'benign' interventions. Significant morbidity and mortality have been associated with them, such as attempted suicide or self-harm while in seclusion.[1] There is are also a risk of bringing up old trauma in patients with a history of trauma, loss of dignity and other emotional injury.[3]

There are differing views on seclusion: 'The seclusion of psychiatric patients is viewed by some as a violation of basic human rights, by others as a necessity for the control of violence, and by still others as a therapeutic modality'[4]. In a paper discussing the legal issues of seclusion in Australia and New Zealand, this lack of clarity was revealed in Mental Health Acts and seclusion policies internationally.[5] The ethical conflict arises when one considers balancing the patients' right to autonomy versus the paternalistic responsibility to prevent harm to self and others.[6]

Fisher *et al*. in their review of restraint and seclusion from 1977 to 1994 in the USA concluded that seclusion is effective,[7] while Busch *et al*. found little evidence to guide clinical practice regarding the relative benefits and risks of seclusion. They also found inconsistencies in the application of seclusion.[8]

Despite the ethical debate and risks associated with seclusion, there have been limited data on procedures that will lead to the decreased use of seclusion.[9]

Sterkfontein Hospital's seclusion policy is in accordance with the Mental Health Care Act (MHCA) in South Africa.[10] The act states that seclusion may only be used in patients with 'severely disturbed behaviour' for containment and not as punishment.

Observation must be done every 30 minutes and documented in clinical notes. A register must be signed by a doctor, the time period and reason for seclusion must be documented and the head of the health establishment must be notified daily of all seclusion incidents. A transcript of the register must be submitted by the health establishment to the Review Board on a quarterly basis using form MHCA 48.

Although numerous studies have been done in USA, UK, Australia and some European countries, there are no recent South African data on seclusion. Consequently little attention has been paid to alternatives or factors that could decrease rates of seclusion in South Africa.

Objectives

To determine the number of seclusions, reasons for seclusion and the clinical profile of patients secluded over a six-month period at a tertiary psychiatric facility.

Methodology

Study design

This was a retrospective cross-sectional record review.

Study site

The study was conducted at Sterkfontein Hospital which is the largest of the specialist hospitals associated with the University of the

Witwatersrand, Department of Psychiatry. It caters for involuntary users, forensic cases (*observandi*) and 'State President's Detainees'. The hospital has lock up facilities and open wards and admits both adults and adolescent users.

Sample population

The study population consisted of all users secluded during a six-month period in 2006.

Of the 612 usable beds at Sterkfontein Hospital, female beds comprise 74 beds.

Measurements

Data were collected from clinical records (providing the age, diagnosis and discharge medication) and the MHCA 48 forms (providing the date, time, ward and reason for seclusion). The user status was derived from the ward from where the user was admitted.

Statistical analysis

Data were analysed using the statistical analysis software (SAS) version 9.2 statistical program (SAS, Cary, NC, USA). Results are expressed as mean and standard deviation or median [range] for non-normal distribution or frequencies and percentages for categorical variables. To assess differences by gender, user status, diagnosis and medication, and the reasons for seclusion, the Mann-Whitney Wilcoxon test for scores or continuous non-normal distributed variables was used. Significance was assumed at a both-sided value of $p < 0.05$.

Ethics

Permission was obtained from the CEO of the hospital to obtain access to records for data collection. The study was approved by the University of the Witwatersrand's Human Research Ethics Committee (HREC).

Data were collected and stored in a confidential manner. The user's name remained anonymous and was not recorded on the data sheet. Only the researcher kept and had access to a separate register recording the user's name and study number. None of the data was disclosed to sources outside of the research process.

Results

Number of seclusions over a six-month period

A total of 112 users were secluded over the six-month period.

Table 1. Seclusions per month over six months at Sterkfontein Hospital

Seclusions	March	April	May	June	July	August	Total
No. of users	38	33	41	44	39	36	
Total hours	11 814	8 375	10 621.5	10 755	9 526	8 324	59 415.5
Occasions	933	669	826	889	806	691	4 814
Hours (mean)	311	253	259	244	250	237	259
Hours (minimum)	2	2	1	2	1	1	1.5
Hours (maximum)	568	430	529	595	640	546	551
Occasions (mean)	24.5	20	20	20	20	19	20.6

Table 2. Demographic profile of users secluded during a six-month period at Sterkfontein Hospital

Gender (%)	Male	84.82 (*n*=95)
	Female	15.18 (*n*=17)
Age (years)	Mean	29 (SD=10.4)
	Youngest	13
	Oldest	67
User status (%)	Involuntary (male and female)	35.71
	State (male and female)	35.71
	Adult male (observation and state)	8.04
	Adult female (observation and state)	5.36
	Adolescent male (state and observation)	15.18

All 112 users had seclusion documents; however, the clinical records of 26 users were not found.

The number of seclusions per month is summarised in Table 1.

The total amount of time spent by all the users who were secluded during a particular month is indicated in hours. The 'occasions' secluded refers to the number of separate episodes that users were secluded in that month.

On average there were 802 seclusion occasions per month and the average total time per month was 9 902 hours. The mean number of users secluded per month was 38.5. The mean number of hours spent in seclusion every month per user was 259 hours.

The mean number of episodes of seclusion per user was 20.6 per month. The mean number of hours spent in seclusion per occasion was 12.5 hours.

Demographic profile

Table 2 illustrates the demographic profile of users that were secluded during the six-month period.

A total of 33% of users secluded are in the 21 - 30 year age group, followed by 29.7% in the 31 - 40 year age group and 24.2% in the 11 - 20-year-old group.

A total of 35.7% (*n*=40) of users secluded were involuntary users, the rest were forensic users (either state patients or *observandi*).

Reasons for seclusion

Fig. 1 illustrates the reasons users were secluded.

Collectively 37.40% (*n*=42) of users were secluded for aggression (either physical or verbal or both).

A grouping was made to look at the data in terms of those secluded as per MHCA indications i.e. 'aggression/risk of violence' (i.e. physical aggression, verbal aggression, both physical and verbal aggression, threat of violence, other, no reason documented) and 'users own safety', the latter is not an indication for seclusion as per MHCA. Males were marginally more likely to be secluded for their own safety (56.8%, *n*=54) than for aggression/risk of violence (43.2%, *n*=41). Females were mostly secluded for aggression/risk of violence (94.1%, *n*=16) compared to being secluded for their own safety (5.88%, *n*=1).

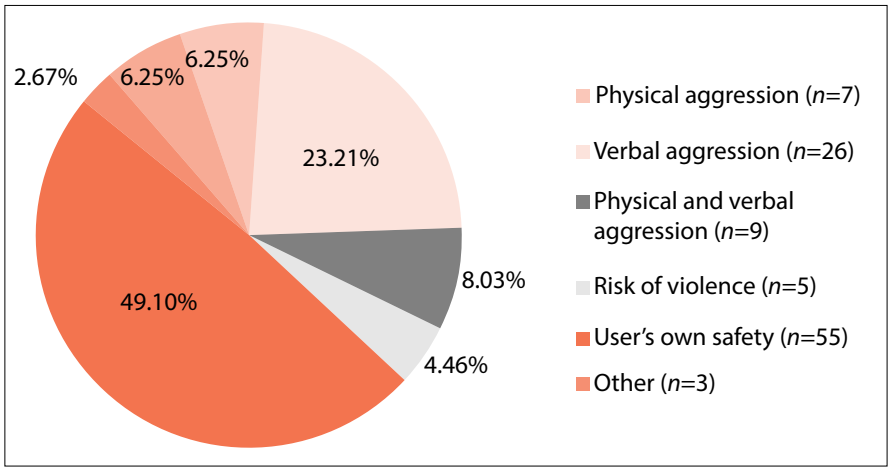

Fig 1. Reasons for seclusion during a six month period at Sterkfontein Hospital.

Table 3. Diagnoses of users secluded during a six-month period at Sterkfontein Hospital

	Diagnosis	*1	*2	Total number of users	%
1	Schizophrenia	32		32	31.4
2	Bipolar mood disorder	14		14	13.7
3	Cognitive impairment	18	3	21	20.6
4	Epilepsy	2	2	4	3.9
5	Conduct disorder	1	1	2	2.0
6	Personality disorder	1		1	1.0
7	Dementia	1	2	3	2.9
8	Substance abuse		2	2	2.0
9	Substance-induced psychosis	3	3	6	5.9
10	None	3		3	2.9
11	Psychotic disorder not otherwise specified	4		4	3.9
12	Schizoaffective disorder	4	2	6	5.9
13	Frontal lobe syndrome	1		1	1.0
14	Disruptive behavioural disorder		1	1	1.0
15	Organic brain syndrome	1		1	1.0
16	Mood disorder secondary to HIV	1		1	1.0

*1= first diagnosis
*2= second diagnosis

Only one involuntary user was secluded for his own safety and 39 for aggression or the threat of violence.

In the forensic wards close to three quarters of the users (*n*=54) were secluded for their own safety and 17 users were secluded for aggression or threat of violence.

Clinical diagnosis

The diagnostic system that applied at the time of the study is the Diagnostic and Statistical Manual of Mental Disorders, 4th edition (text revised) (DSM IV-TR). There were 16 diagnoses found collectively. Of the 86 clinical records found, 16 users had 2 diagnoses. Table 3 depicts the number of users and percentage at which the diagnoses were documented.

Of the 16 users who had a second diagnosis recorded, 11 had schizophrenia, 4 had cognitive impairment (CI) and 1 had epilepsy. Both schizophrenia and cognitive impairment occurred in 3 users.

When users were secluded for their own safety the most common diagnosis was schizophrenia, followed by cognitive impairment (CI). Collectively these two diagnoses made up 71.4% of users who were secluded for their own safety. Those with a second diagnosis who were diagnosed for their own safety had the diagnosis of CI and dementia. Schizophrenia was the most common diagnosis in users who had documented reports of physical aggression and both physical and verbal aggression, respectively (83.3% and 50%). A total of 40% of users secluded for verbal aggression had bipolar mood disorder (BMD). The most common diagnosis of users who were secluded because of risk of violence, was schizophrenia (50%), followed equally (25% each) by BMP and CI.

Table 4 compares the three most common diagnoses (which make up 74% of the diagnoses of users), with reasons for seclusion, when the reasons for seclusion are divided into aggression/risk of violence (i.e. physical aggression, verbal aggression, both physical and verbal aggression, threat of violence, other, no reason documented) and user's own safety. The percentages refer to the percentage of users with that specific diagnosis, e.g. 18.6% of users who were secluded for their own safety had a diagnosis of schizophrenia.

Medication

Table 5 illustrates the medication that users were given on discharge. Nearly half the users were on antipsychotics (48, 76%) and just over a third were on a mood stabiliser (35.80%).

Discussion

An international review of the incidence of seclusion showed a vast range in the frequency and duration of seclusion,[11] from seclusion episodes of 300 hours in the Netherlands to rare seclusions in the UK. Very limited data exist in developing countries.[11,12]

This research study reveals seclusion episodes between these two ranges with a mean of 12.5 hours per seclusion episode. The mean hours/month per user of 259 hours represent about 11 (24-hour) days per month which is a lot of time spent in seclusion. The MHCA does not specify a minimum time that users may be secluded, neither does it state after what time period or after what number of seclusions a new order of seclusion should ordered. This allows clinicians *carte blanche* on the number of times and hours a user might be secluded. With such freedom comes great responsibility to ensure that the human rights of the user are not abused and that seclusion is prescribed only for very specific

Table 4. Comparison of reasons for seclusion in the commonest diagnoses of users secluded during a six-month period at Sterkfontein Hospital

Diagnosis	Schizophrenia		Bipolar mood disorder		Cognitive impairment		Remaining diagnoses		Total	
Reasons for seclusion	***n***	**%**	***n***	**%**	***n***	**%**	***n***	**%**	***n***	**%**
Own safety	16	18.60	1	1.16	14	16.28	11	12.79	42	48.84
Aggression/risk of violence	16	18.60	13	15.12	4	4.65	11	12.79	44	51.16
Total	32	37.20	14	16.28	18	20.93	22	25.58	86	

Table 5. Medication classes of users who were secluded during a six-month period at Sterkfontein Hospital

	Medication	Frequency	%
	Nil	11	6.79
Mood stabilisers	Na Valproate	28	17.28
	Lithium	11	6.79
	Carbamazepine	8	4.94
First-generation antipsychotic	Haloperidol	18	11.11
	Chlorpromazine	12	7.41
	Trifluoperazine	2	1.23
Second-generation antipsychotic	Clozapine	3	1.85
	Risperidone	18	11.11
	Olanzapine	1	0.62
	Sulpiride	2	1.23
Depot antipsychotic	Fluanxol Depot	5	3.09
	Clopixol Depot	15	9.26
	Modecate	3	1.85
Benzodiazepine	Clonazepam	7	4.32
Other	Androcur	5	3.09
	Orphenadrine	11	6.79
	Propranolol	1	0.62
	Galantamine	1	0.62

indications and after other measures have been tried and proven unsuccessful.

Fisher *et al*[7] revealed no clear cut demographic trends. A fairly consistent finding was that younger users are more likely to be secluded, as is evident in this study. The fact that males were secluded more often than females may be due to more male admissions at that time.

One would expect that the involuntary users were more likely to warrant seclusion than their counterparts in the forensic wards, as the latter are often chronic users and stable. Involuntary users are admitted under section 33/34 of the MHCA and would, by definition, have a mental illness of such a nature that they were likely to inflict serious harm to self or others. The study reveals that 64% of users secluded were from the forensic wards; however, reasons for seclusion indicate own safety in three quarters of cases. This would be expected as some of these users were adolescents who would require protection of their safety. Of the adult users in the forensic wards those with cognitive impairment would warrant protection of their safety by virtue of their diagnosis.

Close to half the study population were secluded for 'user's own safety' (49.1%). These were users that were vulnerable and not safe if bedded with rest of the ward population, as they may have been at risk of sodomy/sexual exploitation. The MHCA[10] states that seclusion may only be used to contain severely disturbed behaviour, which is likely to cause harm to others. The regulations of the MHCA only provide for seclusion if the safety of others is involved and not when 'own safety' is involved. These users did not exhibit any dangerous or disturbed behaviour and should not have been secluded in terms of the MHCA indications for seclusion. The practice of secluding vulnerable users for their own safety should be avoided as it impacts on their human rights and does not contain the actual perpetrators of violence in these settings. This reflects strongly on the capacity and the type of facilities, as well as the inappropriateness of the grouping of vulnerable individuals together with violent aggressive individuals.

It also gives us an inflated number of seclusions that should occur, as indicated by the MHCA. As these users' clinical profiles were noted and included in data analysis we get an imprecise clinical profile of users that are likely to be secluded for containment of aggressive behaviour. To compensate for this, the reasons for seclusion were separated into two groups: 'user's own safety' and physical and verbal aggression, and risk of violence.

The remaining users in our study (48%) were secluded for aggression or the risk of violence (in keeping with the reasons outlined in MHCA).

The most common diagnosis of users secluded in our study was schizophrenia, followed by intellectual disability and BMD. This is consistent with findings in the Australian study and that found in the review by Fischer in 1994, who found that the diagnoses associated with higher seclusion rates were psychosis, manic symptoms, character disorders, mental retardation and abnormal EEGs.[7, 13]

When correlating the reasons for seclusion with diagnosis, CI seemed to be a factor in users being secluded for their own safety as evidenced by schizophrenia, CI and dementia being the most common diagnoses. This is possibly due to the nature of their disability as they are vulnerable and open to abuse by other users in the ward.

When users were secluded for aggression/risk of violence; schizophrenia and BMD were the most common diagnoses. Paranoid ideation and perceptual disturbances in such users might account for the agitated

behaviour that required the use of seclusion. In the manic state of their illness, users with BMD could become agitated and aggressive and require seclusion for containment.

Limitations

The clinical records of 26 users were not found and therefore the clinical profile of these users could not be included. The medication and management of users could be affected by different prescription styles of clinicians. In wards with both observation and state users it was not differentiated whether the users were observation or state users.

As this was a retrospective review the reasons for seclusion were recorded directly from the MHCA form 48, the way in which various clinicians distinguished 'risk of violence' from 'verbal aggression' depended on the clinician prescribing the seclusion. The study does not describe what medication the user was given, if any, prior to seclusion.

Data on the number of users that were admitted during the study period could not be obtained and therefore the percentage of users that were secluded could not be calculated.

Conclusions and recommendations

Just under half the seclusions occurred 'for user's own safety'. Perhaps these users should be termed as being 'bedded alone' instead of recorded as being secluded. This would give us a better indicator of seclusion as indicated by the MHCA. These users had to be recorded on the seclusion register (form 48) as they had been placed in a locked room. This is in keeping with the MHCA, which states that if a user is isolated in a space, where his or her freedom of movement is restricted, he or she is by definition being secluded and requires observation and a register to be completed. To ensure that, while in the locked room, these users were not overlooked perhaps a policy and/or protocol could be drawn up stating that these users should be observed at regular intervals and a separate register be kept for them. The recommendation should be made to the National Department of Health to modify these regulations when users are placed in a locked room for their own safety. Younger male users with psychosis were most likely to be secluded. Perhaps greater caution and care can be taken when dealing with this profile of users so that seclusion might be prevented. The outcome of these patients being secluded may, however, indicate the usefulness of the practice of seclusion.

Mental health care users, particularly those admitted involuntarily, pose a distinct challenge from a human rights perspective. They represent a vulnerable population, yet may themselves cause harm to themselves and/or others by virtue of mental illness. Their management is enshrined within the auspices of the MHCA, which has a policy on seclusion. Ideally, it is preferable to manage patients in a seclusion-free environment. Other ways to improve seclusion practices would be to ensure that it is only prescribed in accordance with the MHCA of South Africa, which is for those at risk of harming themselves and/or others and not for those who are at risk of harm from others. These measures can be implemented with minimal expense by regular training of staff.

Seclusion rates and patient profiles were compared to studies done internationally. No data exist in South Africa to do such comparisons. More research could be conducted in South Africa, of a longitudinal nature, to formulate a clinical profile of users most likely to be secluded, the need for seclusion, and to clarify other factors that might be involved in seclusion practices, to ascertain the effect of and the outcome after seclusion.

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