Seclusion Practice in a Canadian Forensic Psychiatric Hospital

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In this study, seclusion practice was examined in a multilevel, secure psychiatric hospital, serving federally sentenced individuals in the Prairie Region, as defined by the Correctional Service of Canada. Between August 1996 and February 1999, 183 patients (27.7% of total admissions) were secluded on 306 occasions. The mean duration of seclusion was 90.3 hours (minimum 1 hour; maximum 908 hours). A higher proportion of female patients (60%) was secluded than of male patients (25%). Sixty-five percent of the patients were secluded once, 29.5 percent two to four times, and 5.5 percent more than four times. Suicidal threats and self-harm gestures were the reasons for initiating seclusion in 27.4 percent of cases. Patients with diagnosed substance-related disorders accounted for 40.8 percent of all seclusion episodes, whereas those with schizophrenia and related psychoses accounted for 28.1 percent. These findings suggest that seclusion remains a relatively common intervention in some disturbed patients in a forensic setting.

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Seclusion of acutely disturbed and aggressive patients is a well-established method of therapeutic intervention in forensic and nonforensic psychiatric hospital practice. This intervention presents many clinical challenges and ethical and moral questions.[1,2] Some investigators[3,4] challenge the stance that seclusion is a therapeutic intervention, and they question the idea that reducing seclusion practice in a forensic setting compromises security. However, others[5,6] see it as a safe, humane, and effective part of active treatment, when used appropriately. Seclusion does not possess inherent therapeutic properties; however, its therapeutic value has been explained by a variety of principles, including the principles of isolation, decrease in sensory input, and sensory deprivation.[1] On a practical level, the therapeutic basis of seclusion has been explained by the principle of containment in the safest environment when other forms of intervention have failed.[7]

Seclusion is a form of restraint that has survived the widespread liberalization in psychiatric practice. Other forms of restraint in common use today include manual holding and pharmacologic restraints. Manual holding is more expensive than seclusion and similar to seclusion, most patients perceive prolonged manual holding as punitive and unpleasant. Pharmacotherapy, in the form of rapid tranquilization, is seen as more acceptable and humane, because it requires only brief initial restraint during the administration of the injectable medication and before its onset of action. One of the dangers of rapid tranquilization is respiratory depression, and its use therefore requires medical approval. However, the initiation of seclusion does not require the presence of a medical doctor; hence, its implementation is facilitated in situations needing urgent and immediate attention to prevent further deterioration. The situation in the forensic psychiatric setting is particularly interesting, in that most patients have committed crimes before admission and may continue to do so even as patients. Unfortunately, the police may be reluctant to respond to minor infractions in the forensic facility. Consequently, the maintenance of orderliness and discipline on the forensic unit becomes a difficult task and increases the propensity for using seclusion for the overall benefit of the therapeutic milieu.

Indications for initiating seclusion include outwardly directed threatened or actual violence, threat of harm to self or others when other means are ineffective, threat of substantial damage to physical en-

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vironment, and threat of serious disruption of the therapeutic milieu. Seclusion is also used on rare occasions as a contingency measure in behavior therapy to decrease stimulation. Apart from the threat of harm to self and others, there appears to be no consensus in the literature on other indications. There is a growing concern about the practice of seclusion, and one committee of inquiry has called for its statutory prohibition.[8] Nevertheless, the consensus in the literature is that appropriate seclusion practice is a clinically prudent intervention in the prevention of injury and reduction of aggression and agitation.[9]

The concept of seclusion varies from one setting to another.[10] Seclusion may be defined by the place used, the duration, the reason for implementation, and other factors. However, our review of the literature shows little consensus as to what might constitute a universal definition of seclusion. At the Regional Psychiatric Centre (RPC), the site of the present study, seclusion refers to the voluntary or involuntary temporary confinement for clinical reasons of a patient alone in a locked room that is equipped with a closed-circuit camera and from which the patient is not released until deemed clinically ready by the psychiatrist. As at Ashworth Hospital in the United Kingdom, the objective at the RPC is to promote alternative approaches to the care and treatment of acutely disturbed patients and to limit the use of seclusion to exceptional circumstances. Seclusion at RPC is viewed as a stage on a continuum of intensive psychiatric care provided in response to those patients whose mental health problems impair their judgment, behavior, capacity to recognize reality, or ability to meet the ordinary demands of life. Seclusion is the most extreme level on this continuum. The interdisciplinary clinical team considers the least restrictive and most therapeutic level of supervision required on a case-by-case basis.

In the present study, we examined the pattern of seclusion and its associated factors over a 30-month period in a large forensic psychiatric hospital that provides psychiatric care for federally sentenced inmates in the Prairie Provinces and Northwest Territories of Canada.

Method

All seclusion episodes at the RPC between August 1996 and February 1999 were reviewed retrospectively. The RPC is a multilevel secure hospital that caters to the psychiatric (and, most recently, the chronic physical health) needs of federally sentenced inmates from the provinces of Alberta, Saskatchewan, and Manitoba and from the Northwest Territories. In addition, the Centre also caters to Saskatchewan's provincial inmates in need of psychiatric services in a maximum-security environment, to individuals admitted for pretrial psychiatric assessments, and to patients found not criminally responsible (NCR) on account of mental disorders. Most patients in the Centre have high criminal, violent, and/or dangerous propensities.

Data collection involved scrutinizing seclusion logbooks and case notes. The information extracted from these official documents included total admissions during the study period, age, gender, medication at time of seclusion, evidence of trigger factors, reasons for seclusion, and diagnostic category. The data were tabulated for descriptive purposes and analyzed using the statistical package SPSS. The chi-square test with Yates correction was used to test for significant differences between proportions.

Results

Data are expressed as mean ± SD. There were 660 admissions to the RPC during the 30-month study period; of those, 183 (27.7%) produced 306 seclusion episodes. The 183 admissions were accounted for by 150 patients, with 22 patients having two or more admissions to the Centre during the period. The mean age of the secluded patients was 31.6 ± 8.94 years, and the mean age of nonsecluded patients during the study period was 35 ± 9.90 years ($F = 158$, $p < .05$). Table 1 shows the comparison between secluded and nonsecluded patients in gender and reasons for admission. Although female admissions accounted for only 7.2 percent ($n = 48$) of total admissions, they accounted for 15.8 percent ($n = 29$) of secluded admissions. Sixty percent of the female admissions produced episodes of seclusion, compared with 25 percent of male admissions. Patients admitted for acute assessment and treatment and stabilization of mental state accounted for more than half of secluded admissions. Of the five patients admitted for custodial reasons during the study period, only one was kept in the general Centre population, whereas the remainder were in administrative segregation (a form of seclusion).

The mean duration of admission for secluded patients was 103 days (minimum, 3; maximum, 553). The mean duration of seclusion was 90.3 ± 135.15

Table 1 Characteristics of Secluded Patients

Characteristics	Secluded Admissions (n = 183) (%)	Nonsecluded Admissions (n = 477) (%)	Chi-square	p
Gender				
Male	154 (84.2)	458 (96.0)	27	<.05
Female	29 (15.8)	19 (4.0)	27	<.05
Reasons for admission				
Remand assessment	16 (8.7)	32 (6.7)	0.81	>.05
Assessment and treatment	105 (57.4)	57 (12.0)	147	<.05
Rehabilitation program	58 (31.7)	387 (81.1)	147	<.05
Custodial	4 (2.2)	1 (0.2)	4.51	<.05

hours (minimum, 1; maximum, 908). The mean duration in association with other patients while seclusion was still in force was 2.5 hours (minimum, 0; maximum, 53). Male patients accounted for the majority (72.5%) of the seclusion episodes. Approximately 50 percent of the seclusion episodes were initiated after the first month of admission. As indicated in Table 2, only 14.4 percent ($n = 44$) of the patients had any psychotropic medication at the time of seclusion. The mean duration of seclusion for the medicated (104 ± 158.80 hours) and unmedicated (111 ± 236.75 hours) were similar ($F = .03$, $p > .05$). The status of patients under the Saskatchewan Mental Health Services Act (1993) at the time of seclusion is also shown in Table 2. The majority (89.2%) of seclusion episodes involved patients on voluntary admission and treatment status (§ 17 of the Act), and 10.8 percent involved certified patients under the Act (§ 24). Neither of the two patients with NCR status was secluded during the study period. Time of day appeared to have some effect on the rate of seclusion: 144 (47.1%) episodes were initiated during the working hours and 162 (52.9%) episodes were initiated after hours. Obvious provocation before seclusion was documented in only 10 (3.3%) seclusion episodes. Of the secluded admissions, 119 (65%) were secluded once, 54 (29.5%) were secluded two to four times, and 10 (5.5%) were secluded more than four times. Seventy (22.9%) of the total 306 seclusion episodes were not reviewed by the psychiatrist before termination.

Table 3 shows that suicidal threat and self-harm gestures accounted for 27.4 percent of the reasons for

Table 2 Characteristics of Seclusion Episodes

Characteristics	Seclusion Episodes (n)	Seclusion Episodes (%)
Gender		
Male	222	72.5
Female	84	27.5
Time between admission and seclusion		
Within 24 hours	81	26.5
Within the first week	17	5.6
Within the first month	57	18.6
After the first month	151	49.3
Use of medication at time of seclusion		
Yes	44	14.4
No	262	85.6
Psychiatric review		
Yes	236	77.1
No	70	22.9
Provocation		
Yes	10	3.3
No	296	96.7
Period of initiating seclusion		
During working hours	144	47.1
After working hours	162	52.9
Legal status		
Voluntary (§ 17)	273	89.2
Involuntary (§ 24)	33	10.8
Number of seclusion episodes		
Single episode	119	65.0
2 to 4 episodes	54	29.5
5 or more episodes	10	5.5

Table 3 Reasons for Initiating Seclusion

Reason	Seclusion Episodes (n)	Seclusion Episodes (%)
No reason documented	2	0.7
Aggression or agitation	20	6.5
Disruptive behaviour	19	6.2
Assault on staff	4	1.3
Assault on patients	5	1.6
Violence toward property	8	2.6
Suicidal threats	45	14.7
Self-harm gesture	39	12.7
More than one reason	33	10.8
Administrative segregation	14	4.6
Timeout	21	6.9
Acute psychosis	36	11.8
Others	60	19.6

initiating seclusion, and disruptive behavior, and aggression or agitation accounted for 12.7 percent. Acute psychosis was the reason for seclusion in 11.8 percent of the episodes. Rates of assault on staff (1.3%), assault on patients (1.6%), and actual violence toward property (2.6%) were comparatively lower. Approximately 20 percent of seclusion episodes were for other reasons, which included observation, awaiting involuntary discharge from a rehabilitation program, and attempted escape from the hospital.

Table 4 shows the number of secluded patients and number of seclusion episodes by diagnosis. Substance-related disorders was the primary diagnostic category in approximately 40 percent of secluded patients (n = 74) and seclusion episodes (n = 125). Schizophrenia and other psychotic disorders accounted for 27.9 percent and 28.1 percent of secluded patients and seclusion episodes, respectively. As for Axis II disorders, patients with DSM-IV cluster B personality disorders accounted for 59 percent of secluded patients and 65 percent of seclusion episodes. Twenty-six (14.2%) secluded patients had clinically significant difficult personality traits, which were not severe enough to warrant the diagnosis of a personality disorder.

Figure 1 shows the daily variation in the rate of seclusion during the entire study period. More seclusion episodes took place on Fridays and Mondays, whereas Saturdays and Sundays had few seclusion episodes.

Table 4 Diagnoses and Seclusion

Diagnosis	Number of Admissions Secluded (n = 183) (%)	Number of Seclusion Episodes (n = 306) (%)
Axis I Disorder		
No diagnosis	8 (4.4)	11 (3.6)
Substance use disorder	74 (40.4)	125 (40.8)
Schizophrenia and related psychosis	51 (27.9)	86 (28.1)
Depressive disorder	11 (6.0)	18 (5.9)
Adjustment disorder	8 (4.4)	11 (3.6)
Bipolar disorder	12 (6.6)	31 (10.1)
Paraphilia and gender identity disorder	7 (3.8)	10 (3.3)
Organic mood disorder	3 (1.6)	3 (1.0)
Other nonpsychotic Axis I disorder	8 (4.4)	10 (3.3)
Dementia	1 (0.5)	1 (0.3)
Axis II Disorder		
No diagnosis	29 (15.8)	43 (14.1)
Cluster A personality disorder	2 (1.1)	3 (1.0)
Cluster B personality disorder	108 (59.0)	199 (65.0)
Cluster C personality disorder	16 (8.7)	29 (9.5)
Mental retardation	2 (1.1)	2 (0.7)
Difficult personality traits	26 (14.2)	30 (9.8)

Discussion

The seclusion rate of 27.7 percent in this study is lower than the previously reported rate of seclusion in a similar forensic psychiatric setting, Ashworth Hospital, in the United Kingdom. Mason[11] reports a seclusion rate of 35.3 percent at Ashworth, which is one of the three special hospitals purposely built to cater to the psychiatric needs of patients in England and Wales who are deemed dangerous or violent or have criminal propensities. The reason for this apparently lower rate of seclusion in our Centre is not clear from the present study, but it may reflect the seclusion prescription practice of our clinical team. The security personnel are active members of the interdisciplinary team and are more visible at the RPC than at Ashworth Hospital.

The RPC, like any other forensic facility, does not receive much police assistance with regard to minor infractions. However, seclusion is still used very rarely at the Centre for the maintenance of orderliness and discipline. During the study period, there were only four placements of patients into administrative segregation, a form of seclusion for nonclinical reasons.

Although patients admitted for assessment and acute treatment accounted for approximately a quarter of the total admissions to the Centre during the study period, they accounted for approximately 60 percent of the secluded patients. Arguably, patients in this category would be more disturbed and therefore most likely to benefit clinically from seclusion. This finding supports clinical expectation, because seclusion is more likely to be clinically indicated in acutely disturbed patients. It is pertinent to note that four of the five individuals admitted to the RPC for nonclinical (custodial) reasons were secluded (administratively segregated) for security reasons by nonclinical staff of the Centre.

Although female patients were only 7.2 percent of the total admissions during the study period, they accounted for 15.8 percent of the total secluded admissions and 27.5 percent of the total seclusion episodes. The female seclusion rate of 60.4 percent in our study is slightly lower than the 68 percent rate among female patients at Ashworth Hospital.[11] There was no reason to suggest that this was reflective of the difference in the type of behavioral interven-

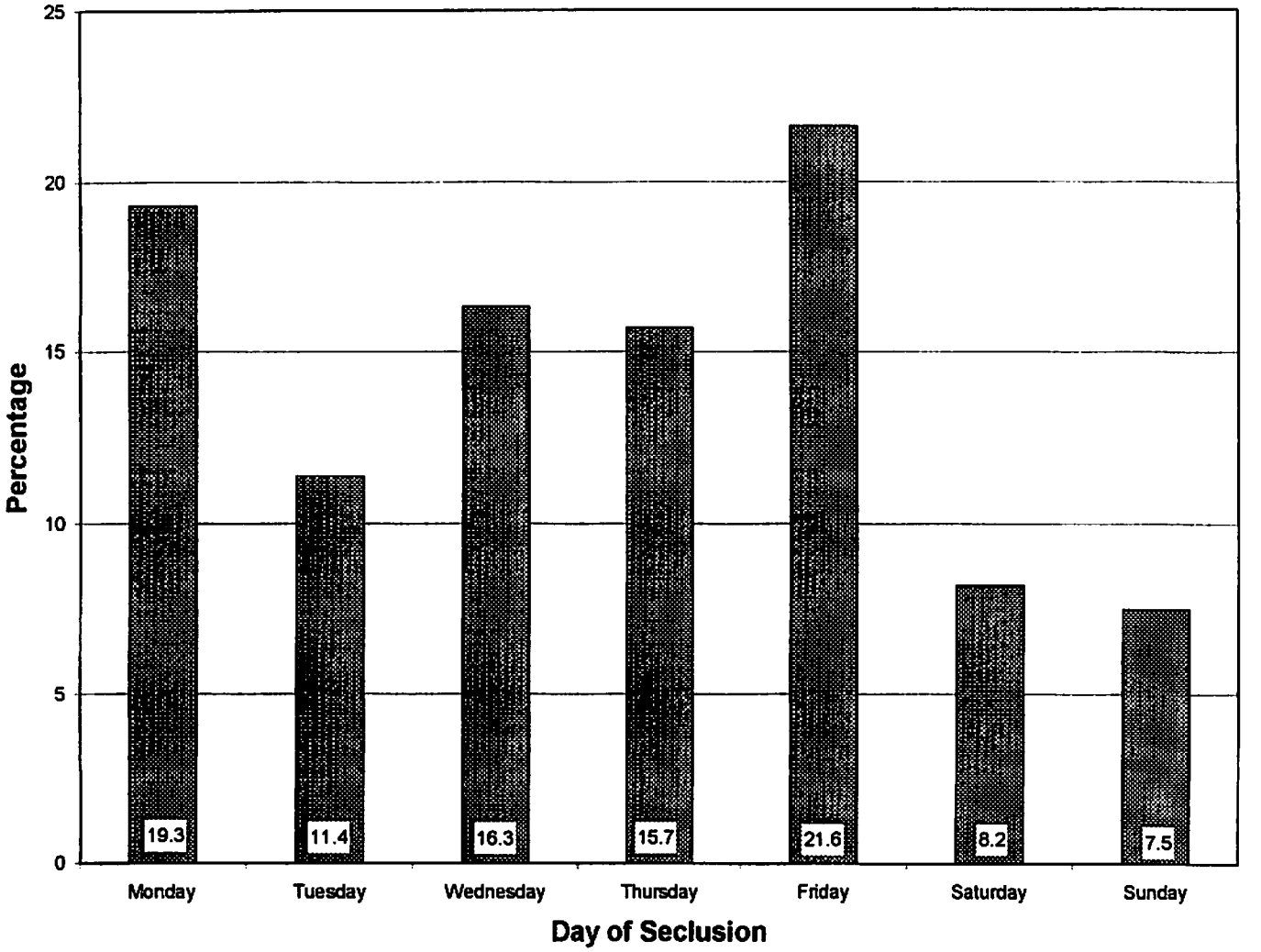

Figure 1. Daily variation of seclusion episodes.

tion used before seclusion at both centers. A higher proportion of female admissions to Ashworth Hospital may also contribute to the difference in female seclusion rates between the two facilities. The higher seclusion rates among females at both centers may be accounted for by high rates of borderline traits in the patient populations. The threat of self-harm or self-harm gestures appeared to be more prevalent among female patients than male patients in the present study. Also, a significant proportion of female seclusion episodes at the RPC were initiated as patient-requested timeouts, which may reflect affective instability or the inability to tolerate boredom that may be associated with long-term incarceration.

The mean age of secluded patients in this study falls within the range reported in the literature.[2,6,12] The mean age of secluded patients was significantly lower than the mean age of nonsecluded patients. This is consistent with the literature, which shows that a greater rate of seclusion among younger patients diminishes steadily with age. This may reflect the fact that younger patients are more energetic and more likely to be perceived as or actually be more aggressive and hence are more likely to elicit a defensive response from the staff. The minimum age in this study was 18 years and the maximum 60 years. A negative correlation between the rate of seclusion, duration of seclusion, and the age of the patients in this study is consistent with findings of previous studies.[2,12] There is no relationship between the use of medication at the time of seclusion and the duration of seclusion and number of subsequent seclusion episodes.

The time of day when seclusion was initiated showed much variation in the literature. This study, like that of Plutchik *et al.*,[5] showed that 47.1 percent

of seclusion episodes were initiated during the working hours. Unlike the previous studies[5,13] in which the day was divided into three periods (daytime, evening, and night), in our study only two distinct periods were examined: during working hours (Monday to Friday, 8 a.m. to 4 p.m.) and outside working hours (Monday to Friday, 4 p.m. to 8 a.m. and all day and night on weekends). This may have resulted in the loss of valuable information relating to staffing ratio and initiation of seclusion. It is, however, pertinent to note that all patients in our Centre are locked in their rooms between 11 p.m. and 7 a.m., in accordance with hospital policy.

With regard to daily variation, the findings in this study show that seclusion was least likely to occur on weekends, compared with weekdays, when presumably there is full staffing. A possible explanation for this finding is that patients often become more aggressive or confrontational to avoid being discharged to their parent institution (penitentiary) when notified of such pending action, commonly during a weekday. This attempt to avoid discharge may be explained by fear (real or imagined) and anxiety associated with being returned to a penitentiary environment. Another possible explanation for the low rate of seclusion on weekends may be that patients do not willingly want to miss social programs that are offered on the weekends. It was not possible to explore the effect of staffing on this finding from the available data.

Patients in slightly more than 20 percent of the episodes in this study were not seen by the psychiatrist but their seclusion was reviewed through telephone consultation before termination, which perhaps meant that the patients did not stay long enough in seclusion to warrant such examination. The consensus in the literature, even among those who regard seclusion as a positive therapeutic intervention, is that seclusion should be for as short a time as possible and that secluded patients must be regularly reviewed by the medical staff.

The modal duration of seclusion reported in the literature ranges from 1.25 hours[12] to 25 hours.[14] The longest continuous seclusion episode was 8.8 days[15] and the shortest was one hour.[16] A possible explanation of this disparity may be differences in the clinical definitions of seclusion, the types of facilities, patient populations, staffing ratios, and differences in seclusion policies. In some facilities, for instance, a patient is considered out of seclusion as soon as he or she is in some association with other patients, whereas in other facilities, as at the RPC, such patients are still considered to be in seclusion, despite the period of association. This would explain why the mean duration of seclusion in this study appeared much higher in relation to those published in the literature. Of interest is that the mean duration of seclusion in this study bears a striking similarity to the mean duration reported by Mason[11] at Ashworth Hospital.

Although a review of the literature revealed that higher seclusion rates were recorded soon after admission,[17–19] the findings in our study showed that 49.3 percent of the seclusion episodes took place one month after admission, whereas 26.5 percent took place within 24 hours of admission. This may be related to a propensity for aggressive decompensation in some patients when the treatment team decides to transfer them back to their parent institution (penitentiary) after completion of an assessment. The majority of these patients understandably prefer the RPC to the penitentiary and will do whatever it takes (including the use of aggression and threats) to remain at the Centre.

In this study, approximately 20 percent of the seclusion episodes were initiated for "other reasons," which in most cases were associated with inwardly or outwardly directed aggressive behavior. Other reasons include a period of observation (in cases of significant preadmission aggression, impulsivity, or unpredictability), discharge from the program, attempted escape, and at patient's request for reasons other than timeout. As with most of the reasons for initiating seclusion, other reasons included the provision of a single reason that was neither included under the other categories listed for reasons, nor used frequently enough to warrant a category on its own. The category "more than one reason" included the provision in patients' files of two or more specific reasons for the commencement of a seclusion episode. Suicidal threats and self-harm gestures accounted for the initiation of more than one quarter of the seclusion episodes. The design of this study did not allow for the examination of the effect of staffing levels and staff genders on the rate and duration of seclusion, because this information was not available on the records.

The study did not support the general consensus in the literature that patients with psychotic diagnoses have higher rates of seclusion than patients

with nonpsychotic diagnoses.[5,16,17] In this study, more than 40 percent of secluded patients and seclusion episodes were accounted for by patients with the primary diagnosis of substance-related disorders. It is pertinent to note that none of the secluded patients with the primary diagnosis of a substance-related disorder was in a toxic or acute state of withdrawal at the time of seclusion. There was, however, a higher rate of personality disorder in this group of patients, which may have accounted for the deterioration in behavior that necessitated the initiation of seclusion. Schizophrenia and other psychotic disorders accounted for more than one quarter of secluded admissions and episodes. Fifty-nine percent of the secluded patients met the diagnostic criteria of DSM-IV cluster B personality disorder, whereas another 14.2 percent manifested clinically significant difficult personality traits that were not severe enough to warrant the diagnosis of a definite personality disorder. This supports the findings of Tardiff,[20] who reported that patients with personality disorders were at a higher risk of seclusion.

Regardless of the moral and ethical debate surrounding the use of seclusion, there appears to be a general consensus that there is a lack of effective alternatives when its use becomes clinically unavoidable. Removal of patients from the environment that contributed to the disturbance may be the only clinical intervention available to prevent further deterioration of the situation and protect the patient and others. The results of our review of the practice of seclusion in an adult forensic psychiatric setting are largely supportive of those in some previous studies. This review supports the need for controlled prospective trials of various treatment modalities in the management of acute behavioral disturbance.

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