Managing acute behavioural disturbance in an emergency department using a behavioural assessment room

Susan A Cowling, Margaret A McKeon and Tracey J Weiland

Abstract

This study was conducted to evaluate a behavioural assessment room (BAR) as a strategy in the management of people exhibiting acute behavioural disturbance in the St Vincent's Hospital, Melbourne Emergency Department (ED). The study involved a retrospective audit of the data documented for BAR use over a 12-month period and a structured questionnaire of clinical and non-clinical emergency department staff.

Patients managed in the BAR presented with various behaviours; 58% were substance induced. The median duration of stay in the room was 20 minutes, during which assessment and containment or "behavioural resuscitation" proceeded. 98.5% of questionnaire respondents believed that the BAR created a safer environment for all ED patients, staff and others.

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What is known about the topic?

Despite escalating demands on emergency departments there are few strategies for managing the behaviourally disturbed patient. Clinicians have struggled to provide an adequate environment for the management of aggressive behaviour, and while most hospitals have a generic response to acute aggressive incidences, this strategy is insufficient for emergency department environments.

What does this paper add?

This paper describes and evaluates a strategy for managing behavioural disturbance; a dedicated space in association with supported processes and policies. It is demonstrated that this formula increases the perceived safety of ED staff.

What are the implications for practitioners?

Providing a dedicated area to manage behavioural disturbance provides effective behavioural resuscitation, thereby facilitating a more streamlined and safe approach to health care delivery.

EMERGENCY DEPARTMENTS (EDs) are faced with an increasing number of patients exhibiting behavioural disturbance that interferes with health care provision and may place patients, staff and/or others at risk. Workplace violence has also been on the rise over the past few decades.[1,2] Effective containment of this escalating situation demands an innovative approach and change in attitude by health professionals.[3] The increase in behavioural disturbance may be attributed to a growing demand on EDs, changing trends in illicit drug use,[4] and the redirection of mental health care towards a "mainstream" community-based model.[5-7]

The structural design and care pathways of EDs have traditionally been geared towards medical emergencies rather than managing adverse behaviour. With respect to the increased number of behaviourally disturbed patients within EDs and the associated difficulties in managing their care, the typical ED environment is no longer conducive to optimum safety; patient care may be compromised and undue stress is placed on staff and visitors to the department. Previous research indicates that although ED staff feel able to assess the potential for violence, they perceive themselves as being inadequately skilled to manage aggression.[7] A recent internal quality improvement survey of St Vincent's Hospital, Melbourne (SVHM) ED staff revealed that only one third of staff felt safe to very

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safe in the ED and more than two thirds reported that violence in the department decreased the standard of their work. Violence in the ED is generally under-reported,[8,9] and that which is reported indicates an alarming trend.[8,10,11]

The occupational violence prevention strategy recommended by the Australian Institute of Criminology involves a three-part approach comprising

- structural changes to the work environment;
- administrative strategies such as audits and response teams; and
- the effective communication of practices and policies through staff training.[12]

Despite these recommendations, models for managing acutely behaviourally disturbed patients within a general medical context are rarely described in the scientific literature. Most Australian EDs have procedures in place to instigate a team-based response to behavioural disturbance. Identified at SVHM as "Code Grey", this medically coordinated response prevents and manages challenging situations involving such patients, relatives or others.[13] Although this response may meet the needs of general hospital units, it falls short in managing patients within the busy ED setting. The physical layout of the typical ED and the unpredictable nature of the behaviourally disturbed patient create areas of risk within the ED, requiring a more intense approach.

Behaviourally disturbed patients are typically managed in the open ED setting, and on view to others in the ED. This close proximity increases the risk of harm to others and disturbs the provision of health care. Having recognised these suboptimal conditions, a novel approach to the management of behaviourally disturbed people was devised. Using a purpose-built containment area or "behavioural assessment room" (BAR), this system augments the typical Code Grey response by removing the patient from the public environment and into an allocated room external to the central ED. The BAR requires less space than conventional management strategies by containing and removing the disturbance from the ED proper. Consequently, this strategy offers a method of promptly restoring equilibrium to the ED and may increase patient and staff safety.

The aims of this study were to

- audit frequency and duration of BAR use over a 12-month period;
- audit characteristics of patients managed in the ED collocated BAR over the same 12-month period;
- assess staff experiences of violence and perceptions of safety within the ED after the BAR was introduced; and
- determine the satisfaction of staff responsible for managing patients in the BAR and its supporting policies.

Methods

Design

A mixed design was used involving retrospective case reviews of patients managed in the BAR, and a questionnaire administered to staff before and after the implementation of the BAR.

Setting

The setting for the study was the ED of a major metropolitan teaching hospital, SVHM. The ED at SVHM provides emergency health care to about 32 000 patients every year. It is a gazetted mental health facility, and offers a 24-hour on-site psychiatric triage and assessment service. It has access to a comprehensive drug and alcohol service 9am–5pm Monday to Friday. A service agreement ensures that those in the affiliated correctional service also benefit from the timely provision of quality health care.

Behavioural assessment room

The BAR is situated at the entry of the ED and triage area. This location provides ease of access and egress. Police and ambulance contact ED staff to inform of imminent arrival and have direct access to the BAR without passing through any other location in the ED. The empty room has concealed piped gases and suction for medical resuscitation if required. No physical or removable hazards are present and light switches are located on the exterior entrance along with protective

gloves and the external duress alarm. The doorway allows for access for three persons abreast, with a "cat and kitten" door. To allow for vision of the room from the outside there are two windows; one is located within the structure of the door and the other gives vision from the adjacent resuscitation room, which has an external blind for privacy.

Policy

The policy underpins the procedures involved in managing patients while they are contained in the BAR, and was developed specifically for behaviourally disturbed patients and the ED environment. The decision to utilise the BAR in the care of a particular patient is the joint responsibility of the Senior Medical Officer, in collaboration with the Nurse in Charge (or General Triage Nurse). It is guided by the patient's presentation and the potential for harm to himself/herself or others. In addition, the Code Grey team is activated to reinforce the safety of all involved.[13] A full medical and nursing assessment of the patient is undertaken, to ascertain the cause(s) of the behavioural disturbance and to determine a management plan. While in the BAR, the contained patient is always accompanied by at least one clinical staff member. When practical, the patient is dressed in a hospital gown. This aids in searching the patient for items that are potentially dangerous, and facilitates treatment. A dedicated observational chart was developed for the BAR and incorporates a "physical restraint initial order and review" form. This chart allows for comprehensive recording of all aspects of the presentation. Once equilibrium has been restored, the patient is moved into the general ED area or transferred to another suitable facility for ongoing care.

Staff training

Staff training was offered as weekly 50 minute sessions over a period of several months. Educational content was geared toward clinical (nursing and medical) staff dealing with persons presenting to the ED who would be managed in the BAR. Training included a comprehensive description of the policy,[14] the specific documentation form which is used in conjunction with the hospital patient observation chart, and the practice that it underpinned.

Audit tool development and pilot study

An audit tool was developed by two ED clinical staff members using iterative, verbal feedback of key stakeholders in the ED. The aim of the tool was to identify:

- the impact of BAR use on ED resources;
- process issues associated with the BAR use; and
- patient-related characteristics associated with BAR use.

For this reason, the tool focussed on the duration of BAR episodes, methods of restraint used, and patient demographic, clinical, and presenting characteristics associated with BAR use. Since anecdotal reports by ED clinical staff indicated that that a large proportion of patients requiring management in the BAR presented with substance intoxication, this was deemed an important focus of the audit. The audit tool was piloted in 10 patients. Since no alterations were made to the tool after the pilot review, auditing was not repeated on pilot cases.

Study participants

All patients presenting to the ED and experiencing acute behavioural disturbance that were treated in the BAR were included in the study. Acute behavioural disturbance was defined as any manner in which a person conducts him or herself that does not respond to normal verbal intervention, interrupts the every day organisation of the ED and has the potential to place the individual and/or others at risk.

Procedure

The medical records of all patients who were triaged to or treated in the BAR within the 12-month period Jan–Dec 2003 were audited by three senior ED nurses. The auditing period was commenced 5 months after the introduction of the BAR use in the ED. This permitted staff to become familiar with regular BAR use, and allowed for refinements to the BAR protocol. For each patient,

the following data were extracted from the electronic patient administration system or nursing chart and collated: age; gender; time and mode of arrival (police, ambulance, private vehicle); triage category (1–5); duration of time spent in the BAR ("BAR length of stay") and in ED ("ED length of stay"); type of restraint (chemical, mechanical); substance use (yes/no); type of substance use (alcohol, polysubstance, amphetamine, heroin, cannabis, non-compliance to medication, withdrawal, none); discharge destination (home, psychiatric inpatient unit, correctional services, admitted, unknown); and clinical reason for BAR use based on presentation. This information was clearly documented in the patient administration system and/or nursing chart and BAR documentation form. Since information regarding the clinical reason for BAR use based on presentation was ambiguous in some instances, the rating for this item was achieved through discussion and consensus.

Staff questionnaire

The staff questionnaire was developed with the aim of identifying

- the perceived safety of staff;
- staff satisfaction in the method of containment of acute behavioural disturbance; and
- incidence of harm towards staff due to acute behavioural disturbance.

The questionnaire was largely based on a previous survey that was used in the ED as part of a quality improvement activity 2 years before the study discussed here. The original survey was modified for relevance by a single ED-based Psychiatric Consultation Liaison Nurse. The Delphi Technique[15] was then used to ensure content validity. The panel consisted of key stakeholders involved in the management of acute behavioural disturbance, including the ED Nurse Unit Manager, ED Director, an ED Staff Specialist, and a Psychiatric Nurse Consultant, as well as Professor of Nursing working external to the ED. Consensus was achieved after two iterations. Since the questionnaire was largely based on an existing survey that had been administered 2 years previously, a small pilot study involving six participants was conducted. No refinements to questionnaire content or format were deemed necessary.

Procedure

Ten months after the introduction of the BAR and associated protocol, for 1 month between 1 May 2003 and 1 June 2003 a survey was distributed to all ED staff. This questionnaire was confidential and voluntary, and was authorised by the hospital quality council.

For all questions, a forced-choice response format was used and the opportunity to provide a free text answer was given. The structured questionnaire requested information regarding the staff members' discipline, years of experience both in the ED and in managing patient aggression, and their level of training in aggression prevention. Participants were asked about their personal incidence and frequency of verbal and/or physical abuse in the ED both before and after the introduction of the BAR; whether they felt safe in the workplace; whether safety had improved since the introduction of the BAR; their awareness, use, and perceived effectiveness of the BAR policy; whether they had required time off as a result of violence or aggression; whether violence or aggression at work had affected them personally; whether they had been involved in the treatment of a behaviourally disturbed patient in the BAR; and whether there had been a negative impact on patient care or on the ED since the introduction of the BAR. Participants were also asked whether the BAR and associated policy, staff education and support, and team response had supported them in their workplace and in the management of the behaviourally disturbed patient. Finally, participants were asked their perception of whether the BAR had impacted on response times to the behaviourally disturbed patient.

Data analyses

All data analyses were carried out using SPSS for Windows Version 13.0 (SPSS Inc, Chicago, Ill, USA). Results of the audit were analysed using descriptives (mean, median, %, 95% CI). Questionnaire results were analysed using Pearson's chi-square, and bivariate correlation.

1 Number of behavioural assessment room episodes by triage category

Triage category	Number of episodes (%; 95% CI)
1	35 (33.3; 24.3–42.3)
2	51 (48.6; 39.0–58.2)
3	16 (15.2; 8.3–22.1)
4	2 (1.9; −0.7–4.9)
5	1 (0.9; −0.9–2.7)

2 Time period in which behavioural assessment room episodes occurred

Time period	Number of episodes (%; 95% CI)
00:01–06:00	23 (19.7; 12.5–26.9)
06:01–12:00	12 (10.3; 4.8–15.8)
12:01–18:00	38 (32.5; 24.0–41.0)
18:01–24:00	44 (37.6; 28.8–46.4)

Results

Audit results

A total of 32 196 ED presentations (17 974 males; 14 142 females; 53 children) were recorded during the study period (Jan–Dec 2003). During this time there were no documented staff or patient incidents related to BAR use. A total of 471 incidents of aggression requiring police or staff intervention were recorded during this period: this represents a 32.6% increase in these events from the previous year. On 117 occasions (0.4%), the BAR was utilised to assess behavioural disturbance. Of this sample, 76 were male, 38 were female, 3 no gender noted, and none were children. The mean age of the sample was 36.4 years (SD = 9.7; median = 37.3; range, 19.7 years–61.7 years). Using the Australasian Triage Scale[16] most patients were triaged as category 2 (imminently life threatening; $n = 51$; Box 1). Based on the time that a team response was called, BAR episodes were most commonly recorded in the evening (Box 2), and on Saturdays (Box 3). The median duration of stay in the BAR was 20 minutes (min 2; max 762). Substance intoxication was recorded for 68 (58.1%; 95% CI, 49.0%–67.2%) of the 117 BAR episodes. Of these, most (62.5%; 95% CI, 50.8%–74.2%) episodes were associated with alcohol intoxication alone. A frequency distribution for all intoxicants is presented in Box 4. The frequency and methods of restraint used in the BAR are summarised in Box 5.

The documented presentations preceding patient management in the BAR included psychiatric symptomatology (38); organic cause (3); aggression: domestic (involving person known to patient) (12); aggression: non-domestic (involving staff or person unknown to patient) (36); intentional self-harm/suicidal ideation (16); substance intoxication (8); involuntarily held under duty of care (1); not documented (3). The most common discharge destination was home (64), followed by psychiatric inpatient unit (29), correctional services (11), unknown (12), or admitted (1).

Questionnaire results

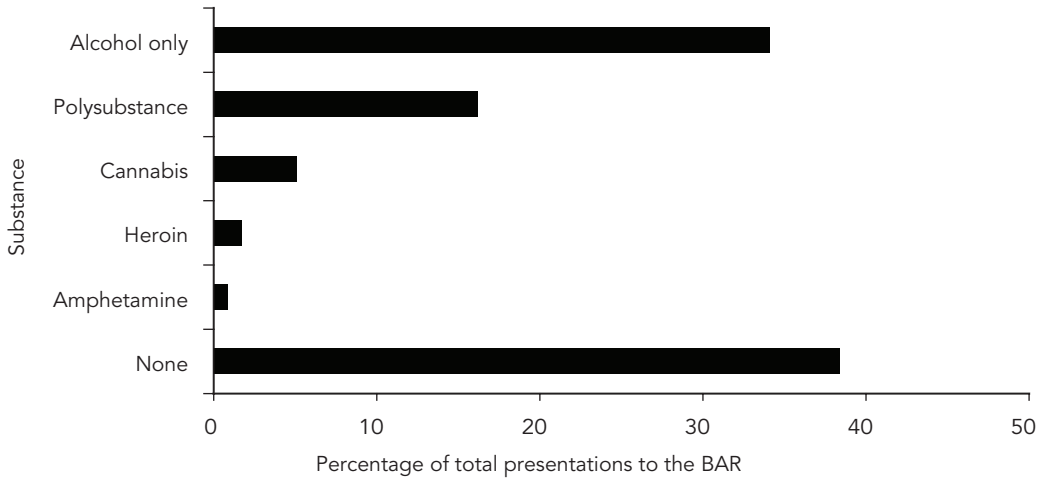
A total of 80/110 staff members (medical: 9; nursing: 42; patient services clerk: 8; support services assistant: 9; security: 12) responded to the questionnaire, producing a response rate of 72.7% (95% CI, 64.2%–81.2%). The median years of experience working in the ED was 3 years. The median reported years involved in managing aggression in the ED was 2.5 years.

Of the 80 respondents, 44% (95% CI, 33.3%–55.2%) reported being affected personally by violence or aggression during their period of employment in the ED, and 14.9% (95% CI, 8.5%–24.6%) reported requiring time off work due to violence or

3 Number of behavioural assessment room episodes by day of the week

Day	Number of episodes (%; 95% CI)
Sunday	7 (5.9; 1.6–10.2)
Monday	21 (17.9; 11.0–24.8)
Tuesday	16 (13.7; 7.5–19.9)
Wednesday	16 (13.7; 7.5–19.9)
Thursday	20 (17.1; 10.3–23.9)
Friday	13 (11.1; 5.4–16.8)
Saturday	24 (20.5; 13.2–27.8)

4 Frequency distribution of intoxicants used by patients managed in the behavioural assessment room



5 Frequency and methods of restraint used in the behavioural assessment room

Method	No. restrained (%; 95% CI)	Percentage of total (95% CI)
Chemical restraint alone	18 (23.3; 13.9–32.7)	15.3 (8.8–21.8)
Mechanical restraint alone	22 (28.5; 18.4–38.6)*	18.8 (11.7–25.7)
Mechanical and chemical restraint	23 (29.8; 19.6–40.0)	19.7 (12.5–26.9)
No restraint upon negotiation and boundary setting	3 (3.8; −0.4–8.1)	2.5 (–0.3–5.3)
Unknown or not recorded	11 (14.2; 6.4–22.0)	9.4 (4.1–14.7)
Total restrained	77 (100)	65.8 (57.2–74.4)

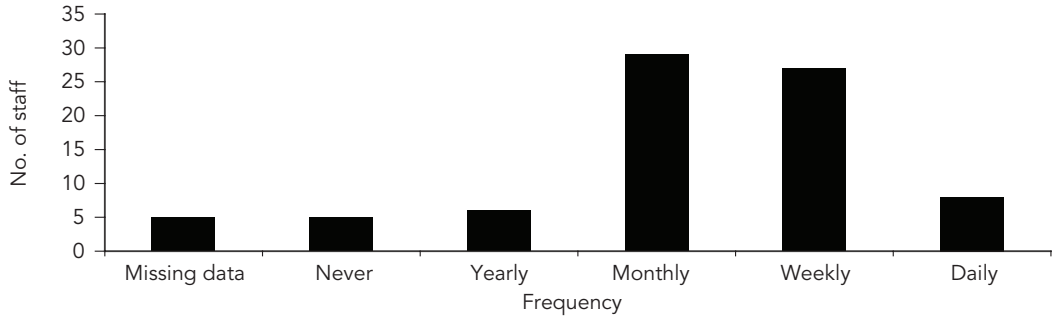
*54.5% initiated before arrival in the emergency department.

aggression in the ED. The majority (87.5%; 95% CI, 80.1%–94.9%) of respondents reported having been verbally assaulted by patients, whereas 52.1% (95% CI, 40.9%–63.3%) reported incidences of physical assault by patients in the ED. The frequency of assault is depicted in Box 6 and Box 7.

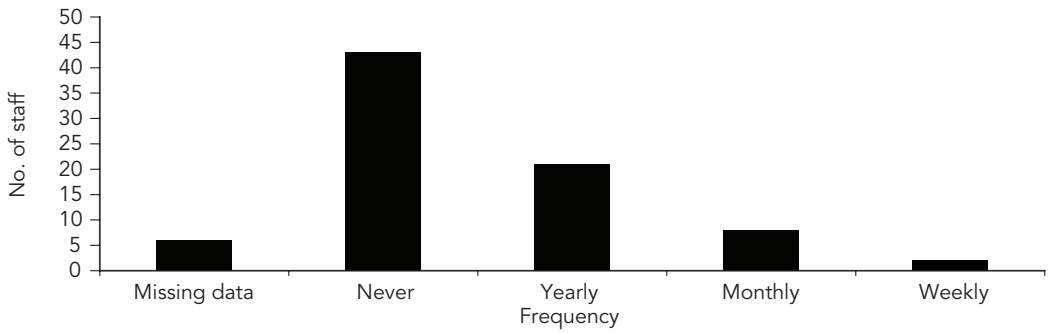
The vast majority of respondents (98.5%; 95% CI, 92.1%–99.7%) believed that the BAR created a safer environment for all emergency department patients, staff and others. Of those that also responded to the first survey in June 2000 ($n = 44$; 55%; 95% CI, 40%–70%), 54 % (95% CI, 35.9%–69.2%) perceived that safety had improved since the previous study. 86.5% (95% CI, 76.9%–92.5%) of all respondents reported feeling safe in the workplace. Forty-eight respondents (60%, 95% CI, 49.0%–70.0%) attended aggression prevention training in the year before the study period. However, neither perceived safety nor perceived increase in safety was correlated to attendance at aggression prevention training ($r = –0.11$, $P = 0.39$). Box 8 summarises valid questionnaire responses to BAR-related attitudinal items.

Fifty-five staff members (68.8%; 95% CI, 58.4%–79.2%) reported being involved in the treatment of a patient in the BAR. Of these, 49 (89.1%; CI, 80.7%–97.5%) reported feeling safe in the workplace, 41 (74.5%; CI, 62.7%–82.3%)

6 Frequency of staff self-reported experiences of verbal abuse in the workplace



7 Frequency of staff self-reported experiences of physical assault in the workplace



reported that the BAR policy improved management of acutely disturbed patients. A more timely response to patient management was noted by 35 (63.6%; CI, 50.6%–76.6%).

There were no significant differences between nurses who had received Code Grey training and those who had not with respect to all questionnaire items.

The number of free text answers provided by respondents was too low to be considered representative of the sample. For this reason, no content analyses were conducted.

Discussion

This study provides the first audit and staff questionnaire regarding the use of an ED collocated BAR. While we provide preliminary evidence of a perceived reduction in time-to-treat for the behaviourally disturbed, this study is limited by the fact that it is dependent on staff perceptions, and recollections, with no objective evidence regarding time to patient care, safety or severity of behavioural disturbance. Further assessment of attitudes and perceptions towards acute behavioural disturbance in the ED should be performed using a tool for which reliability and validity are well established. Nonetheless, these data indicate that the development of an assessment tool to quantify aggression in the ED may be useful in assessing further strategies for the management of the behaviourally disturbed. Furthermore, research incorporating the perspectives of BAR and non-BAR patients may yield information regarding the optimal management of BAR patients, and the effect of this management strategy on others.

The audit revealed that more than half of the behaviourally disturbed patients managed in the BAR presented with substance intoxication. This is not surprising since the link between substance

8 Staff responses to BAR-related attitudinal items

Item	Yes (%; 95% CI)	No	Unsure
Has the BAR created a safer ED environment for staff and others?	79 (98.8; 96.4–101.2)	1 (1.3; –1.2–3.8)	na
Has the BAR had a negative impact on patient care or the ED?	79 (98.8; 96.4–101.2)	1 (1.3; –1.2–3.8)	na
Has the BAR and associated policy supported you in the workplace and in the management of behaviourally disturbed patients?	64 (80; 71.2–88.8)	2 (2.5; –0.9–5.9)	14 (1.8; –1.1–4.7)
Has staff education and support supported you in the workplace and in the management of behaviourally disturbed patients?	64 (81; 72.4–89.6)	4 (5.1; 40.0–62.0)	11 (13.9; 6.3–21.5)
Has the team response supported you in the workplace and in the management of behaviourally disturbed patients?	69 (86.3; 78.8–93.8)	5 (6.3; 0.8–11.6)	6 (7.5; 1.7–13.3)
Has the BAR impacted on response time to behaviourally disturbed patients?	45 (69.2; 59.1–79.3)	12 (18.5; 10.0–27.0)	8 (12.3; 5.1–19.5)

BAR = behavioural assessment room. na = not applicable.

use and violence in the ED has been previously documented.[3,4,8,11] The median duration of BAR episodes was only 20 minutes and most BAR patients were triaged directly into the BAR. Combined with the fact that doctors always form part of the Code Grey response team, this interplay of events suggests that the BAR strategy has a positive impact on clinical treatment times and ED length of stay.

The most important finding emerging from this study was that the BAR and associated team response increased staff's perception of safety and improved patient management. Anecdotally, we have found this to be an intensive "behavioural resuscitation" strategy. Should this be adopted for use in other EDs, it may require consideration for the ongoing management within the ED, provision for concurrent BAR episodes, and evaluation of the most efficient location in the ED.

Interestingly, perceived safety was unrelated to attendance at aggression prevention training. This may indicate that aggression prevention training on its own only increases awareness and wariness and does not improve perceived safety like the BAR and associated policy. Consistent with previous research,[11] the majority of respondents reported having been verbally abused by patients, whereas more than half reported incidences of physical abuse during their period of employment in the ED. A large proportion of ED staff members reported being affected personally by violence or aggression in the workplace, with many taking leave due to these incidences.

The Department of Human Services Victoria have expressed an interest in strategies for reducing occupational violence in the hospital setting and its related negative impact on staff wellbeing.[8] The Australasian College of Emergency Medicine and Australian Nursing Federation have clear policies regarding occupational violence,[17,18] however there have been few innovative strategies incorporated into emergency health care. In light of recent reports of escalating violence within EDs both domestically[3,11] and internationally,[9,10,19-21] this strategy is both timely and warranted.

Conclusion

In sum, these data provide the first evidence that a dedicated area such as the BAR, with policy to support clinical practice and a coordinated team approach, may minimise the impact of disruptive behaviour on the emergency department. By creating a secure work environment, the safety and

confidentiality of all patients and staff is maintained. In light of the increasing frequency of behavioural disturbance in EDs, the adoption of practical strategies such as the BAR is warranted.

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Competing interests

The authors declare that they have no competing interests.

References

1 Bruser S. Workplace violence: getting hospitals focused on prevention. *Am Nurse* 1998; 30(3): 11.

2 Henry J, Ginn GO. Violence prevention in healthcare organisations within a total quality management framework. *J Nurs Adm* 2002; 32: 479-86.

3 Kennedy M. Violence in emergency departments: under-reported, unconstrained, and unconscionable. *Med J Aust* 2005; 183: 362-5.

4 Cunningham R, Walton MA, Maio RF, et al. Violence and substance use among an injured emergency department population. *Acad Emerg Med* 2003; 10: 764-75.

5 Australian Health Ministers. National Mental Health Policy. Canberra: Australian Government Publishing Services, 1992.

6 Kalucy R, Thomas L, King D. Changing demand for mental health services in the emergency department of a public hospital. *Aust N Z J Psychiatry* 2005; 39: 74-80.

7 Wand T, Happell B. The mental health nurse: contributing to improved outcomes for patients in the emergency department. *Accid Emerg Nurs* 2001; 9: 166–76.

8 Gerdtz MF, Maude P, Santamaria N, et al. Occupational violence in nursing: an analysis of the phenomenon of code grey/black events in four Victorian hospitals. Published report. Melbourne: Policy and Strategic Project Division, Victorian Department of Human Services, 2005.

9 Senuzun Ergun F, Karadakovan A. Violence towards nursing staff in emergency departments in one Turkish city. *Int Nurs Rev* 2005; 52: 154-60.

10 Kowalenko T, Walter BL, Khare RK, Compton S, Michigan College of emergency Physicians Workplace Violence Taskforce. Workplace violence: a survey of emergency physicians in the state of Michigan. *Ann Emerg Med* 2005; 46: 142-7.

11 Knott JC, Bennett D, Rawet J, Taylor DM. Epidemiology of unarmed threats in the emergency department. *Emerg Med Australas* 2005; 17: 351-8.

12 Australian Institute of Criminology. Prevention of occupational violence. AICRIME reduction matters. 2003 September 23, no. 10 [electronic publication]. Available at: www.aic.gov.au/publications (accessed April 2005).

13 St. Vincent's Health. Emergency Procedures Manual; Code Grey. Policy document. Melbourne, 2002.

14 St. Vincent's Health. Emergency care centre, the behavioural assessment room. Policy document. Melbourne, 2003.

15 Bowles N. The Delphi technique. *Nurs Stand* 1999; 13: 32-6.

16 Australasian College of Emergency Medicine. The Australasian Triage Scale. *Emerg Med (Fremantle)* 2002; 14: 335-6.

17 Australasian College for Emergency Medicine. Policy document. Violence in emergency departments. Melbourne, 2004. Available at: www.acem.org.au/media/policies_and_guidelines/violence.pdf (accessed Mar 2007).

18 Australian Nursing Federation Victorian Branch. Zero tolerance (occupational violence and aggression). Policy document. Melbourne: 2002. Available at: http://www.anfvic.asn.au/services_policy.htm (accessed Mar 2007).

19 Ferns T. Violence in the accident and emergency department — an international perspective. *Accid Emerg Nurs* 2005; 13: 180-5.

20 Ryan D, McGuire J. Aggression and violence — a problem in Irish accident and emergency departments? *J Nurs Manag* 2006; 14: 106-15.

21 Catlette MA. Descriptive study of the perceptions of workplace violence and safety strategies of nurses working in level I trauma centers. *J Emerg Nurs* 2005; 31: 519-25.

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