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Situational variables related to aggression in institutional settings

Elena Welsh [a], Shannon Bader [a,*], Sean E. Evans [b]

[a] Patton State Hospital, California Department of State Hospitals, 3102 E. Highland Ave., Patton, CA 92369, United States
[b] Patton State Hospital and La Sierra University, 4500 Riverwalk Parkway, Ambs Hall #111, Riverside, CA 92515, United States

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ABSTRACT

For decades, aggressive behavior among psychiatric inpatients has been identified as disruptive to the therapeutic environment and a workplace hazard. Most previous research has focused on individual patient risk factors with less attention paid to the situational, environmental, or therapeutic milieu factors that could influence violence rates. This review outlines the prominent areas discussed in situational factor research and presents recent theoretical models that integrate these factors. Based on the identified shortcomings in the available literature, suggestions for future research directions are offered.

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"Many who live with violence day in and day out assume it is an intrinsic part of the human condition. But this is not so. Violence can be prevented."

[–Nelson Mandela]

1. Introduction

For decades, violence and aggressive behavior has been identified as a pressing issue facing institutional settings like psychiatric facilities (Needham et al., 2004). Likely due to acute illness severity and increased frequency of contact, assault rates against staff and other patients appears to be much higher in inpatient versus community mental health settings (Flannery, Staffieri, Hildum, & Walker, 2011). Past research has indicated that approximately 25–35% of inpatients exhibit violent behavior while in the hospital (Arango, Calcedo Barba, Gonzalez-Salvador, & Calcedo Ordonez, 1999; Daffern, Mayer, & Martin, 2003). The consequences of violence in these settings are far reaching and impact both staff and patients. The burdens associated with violence and aggression include decreased productivity and work satisfaction, significant disruption of the treatment environment, and a negative atmosphere in the milieu (Daffern et al., 2003). As illustrated in Nelson Mandela's quote above, it is important to not assume that violence is inevitable. Rather, we must continue to deepen our understanding of the situational factors which influence and perpetuate violence in order to decrease and ultimately prevent violent incidents.

* Corresponding author. Tel.: +1 909 425 6866.
E-mail address: shannonmariebader@hotmail.com (S. Bader).

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A systematic review of the literature on situational and environmental factors related to violence in institutional settings was completed by Gadon, Johnstone, and Cooke (2006). Their extensive description of the research and discussion of methodological issues unique to institutional settings remains an authoritative work in the field. The purpose of this study was to review published literature on situational variables related to inpatient aggression that was not included in the Gadon review or has been published since 2006. Because of Gadon, Johnstone, and Cooke's strict inclusion criteria, they provided an in-depth review of only 0.53% of the studies identified in their database search. With the exception of five foundational studies that are described in both reviews (Daffern et al., 2003; Flannery, Hanson, Penk, & Flannery, 1996; Flannery et al., 1997; Palmstierna, Huitfeldt, & Wistedt, 1991; Weizmann-Henelius & Suutala, 2000), this study examines the findings of other relevant research that were not included in the previous review. It begins with a discussion of various situational factors that have been identified in the existing literature and then highlights some theoretical models developed to integrate these types of factors into a systemic approach for reducing institutional aggression.

2. Materials and methods

A search of published articles was carried out using the PsychInfo and MEDLINE databases. Various key words, such as inpatient, hospital, psychiatric, and prison, located research conducted in the settings of interest and the words aggression and violence narrowed the search. As relevant research was located, further references were obtained by following up cited studies. Only studies published in English were used and no attempt to search for unpublished research was made. Because the focus of this study was on the situational, environmental, and context variables related to inpatient aggression, studies focused on risk prediction for individual patients, specific risk assessment measures administered to patients, or patient factors related to violence were not reviewed.

3. Situational risk factors

3.1. Victim characteristics

The findings regarding the most common victim of inpatient aggression remain mixed. In a study conducted at the largest psychiatric hospital in Victoria, Australia, 61.4% of violent incidents were directed at staff members versus 32.4% which were directed at other patients (Cheung, Schweitzer, & Tuckwell, 1996). This finding was nearly an exact inverse to a California study showing 60% of victims were patients and 40% were staff members (Quanbeck et al., 2007). However, the Australian researchers did find in a later study that even within the same hospital there was variation in rates of victimization (Daffern et al., 2003). Specifically, the researchers found that on one unit staff and patients were equally the victims of physical aggression, with 17 incidents each, whereas on another unit in the same hospital, more incidents against other patients (26 incidents) were recorded than against staff (4 incidents).

Yet another study conducted in the same hospital at a different time point found that staff were far more likely to be the victims of aggression (222 incidents, 70.3%) than patients were (61 incidents; 19.3%) (Daffern, Mayer, & Martin, 2006). Other researchers examining aggression in a Finnish forensic hospital have found that violence aimed at staff and patients was relatively equally distributed (Weizmann-Henelius & Suutala, 2000). Importantly, it is plausible that incidents directed at staff are more likely to be formally reported than those directed at other patients. For instance, in the Australian study, only 173 formal incident reports were filed out of 806 incidents recorded as part of the research program (Cheung et al., 1996).

Another interesting finding suggests that staff to patient ratios at an acute inpatient psychiatric facility may impact victimization rates. Palmstierna and Wistedt (1995) examined violence rates following a roughly 50% decrease in hospital beds (from 19 to 10 beds). Staff levels remained consistent, thereby increasing the ratio of staff to patients. Although actual violence rates remained virtually unchanged, the proportion of patient versus staff victims shifted with a four-fold increase in incidents against patients versus a significant decrease in rates of violence against staff. This may suggest that staff–patient ratios may increase staff security by redirecting violence away from staff, but at least in this study, the augmented ratios increased peer to peer violence and did not reduce overall rates. Unfortunately, many studies that examine inpatient aggression focus on staff assaults specifically and do not report peer on peer violence rates. This limits the amount of data available for staff versus patient violence rate comparisons.

Daffern et al. (2003) found that male staff were more likely victims than female staff were (84 vs. 37 incidents), although female staff were exclusively the victims of sexual aggression. The study also indicated that aggressive incidents tended to involve victims and perpetrators of the same sex. Because male patients were responsible for 82% of the recorded incidents, this may have contributed to higher rates of male victims. In contrast, research conducted in select state hospital systems has found that female staff are more likely to be assault victims (Flannery, Farley, Rego, & Walker, 2007; Flannery, Hanson, & Penk, 1994). Despite staff perceptions that safety increased with more male staff, Daffern et al. (2006) found that there was no significant relationship between the proportion of male staff on a shift and violence rates (Daffern et al., 2006). Some research has indicated that the proportion of male versus female staff victims differs depending on the context of the violent incident. For instance, in research examining assault rates in a metropolitan state hospital, female staff were more likely the victim of unprovoked violence (75%), whereas men were nearly equally as likely to be victims of assault during seclusion procedures (Flannery et al., 1994).

Not surprisingly, research has confirmed expectations that more experience and formal training decreases staff risk for assault (Flannery, Farley, Rego, & Walker, 2007; Flannery et al., 1994, 2011). Relatedly, younger staff members have also been identified as being at increased risk for assault (Flannery et al., 2011). Daffern et al. (2003) also noted that nursing staff were more likely to be aggressed upon than other staff groups.

3.2. Temporal factors

Many studies have found temporal patterns in incidents rates. Daffern et al. (2003) found that the highest incident rates at forensic hospital occurred in September (33 incidents) and the least number of incidents occurred in October (10 incidents). Other researchers who examined temporal patterns in incident rates in 7 state hospitals in Massachusetts found that August was the highest risk month (10% of incidents), whereas February had the lowest rates (6%)(Flannery, Farley, Rego, & Walker, 2007). In another study, the same researchers found that, in general, warmer months tended to correlate with higher incident rates (Flannery et al., 1994). Researchers at a Finnish forensic hospital found that there was significantly more violence during months with more daylight (i.e., spring and summer versus fall and winter) (Weizmann-Henelius & Suutala, 2000).

Daffern et al. (2003) also found that incident rates were evenly distributed across time between 9 am and 11 pm, whereas no incidents were recorded from midnight to 5 am. Flannery, Farley, Rego, and Walker (2007) also found higher incidents rates in state hospitals during the first shift (8 am–11 am; 56% of incidents). Utilizing the Staff Observation of Aggression Scale (SOAS) in order to classify the severity of each aggressive incident, Cheung et al. (1996) found that the highest *rates* of violent incidents occurred in the morning but that the most severe incidents in their facility occurred in the afternoon. This finding suggests that all examinations of temporal factors need to assess both the number of violent acts as well as the severity of violence. In addition