Evidence Summary: Interventions to Address and Prevent Violence Toward Health Care Workers in the Emergency Department

Key Messages

- Findings were inconsistent regarding education and training interventions for preventing violence in the emergency department. Most findings from relevant primary studies found no difference in the occurrence of violence. A few primary studies reported a reduction in the occurrence of violence; however, statistical significance of the difference was not reported. It is possible that the inconsistencies in these findings may be due to variations in education and training.
- Pharmacological interventions with haloperidol, lorazepam, droperidol, risperidone, olanzapine, or quetiapine were effective in reducing aggressive behaviour and side effects were generally minimal.
- Implementation of restraint documentation tools was associated with a decrease in the use of physical restraints to manage aggressive behaviours. When physical restraints were used for a short duration, complications were minimal.
- No evidence-based guidelines were identified.
- The systematic reviews identified had a broad focus. The included studies within the systematic reviews that were relevant for this report were few and generally of low quality. There was also a lack of details regarding the characteristics of the population within the studies. Therefore, these findings need to be interpreted with caution; more research is needed.

Context

The prevalence of workplace violence (WPV) in the health care setting is increasing and has detrimental consequences for the health care worker, the patient, and the organization. Emergency departments are considered high-risk areas, with high incidences of violence against health care workers being reported (with a range of between 60% and 90%). Few affected people report WPV and fewer seek help. Causes of violence and aggression vary and are not always clear. Common causes include distress and frustration, physiologic imbalances, substance misuse and abuse, intoxication, and mental health issues. WPV may result in physical injury and mental stress to the health care worker, which could lead to absenteeism, staff turnover, decreased productivity, and compromised care.

Technology

Various interventions can be implemented to prevent the violence experienced by health care workers in the emergency department. These interventions include education and training programs, various pharmacological interventions, and physical restraint procedures.

Issue

Violence toward health care workers in the emergency department is a longstanding problem that has reportedly worsened during the COVID-19 pandemic. A review of the clinical effectiveness evidence, and a review of evidence-based guidelines regarding the interventions for the prevention of violence toward health care workers in the emergency department, is needed to make informed decisions regarding the implementation of preventive measures.

Methods

A limited literature search was conducted of key resources, and titles and abstracts of the retrieved publications were reviewed. Full-text publications were evaluated for final article selection according to predetermined selection criteria (population, intervention, comparator, outcomes, and study designs).

Results

The clinical evidence from 7 systematic reviews was summarized. No evidence-based guidelines were identified.

Table 1: Non-Pharmacological Interventions to Prevent Violence in the Emergency Department Evidence Summary[a]

Systematic review[b]	Intervention	Outcome	Results	Studies within the systematic review that contributed to the results summarized
Geoffrion et al. (2020)[1]	Face-to-face feedback and discussion of violent events	Risk of episodes of aggression	No statistically significant reduction	1 relevant cluster RCT
Spelten et al. (2020)[2]	Multimodal intervention that included education and training	Episodes of aggression	Inconclusive	1 pre- and post-intervention study
Raveel and Schoenmakers (2019)[3]	Training (and modifications in emergency department physical structure and security, and policy changes)	Physical assaults against physicians, acquiring knowledge for handling violent situations	No reduction in assaults, increased knowledge and confidence to handle violence (statistical significance not reported)	1 review article
	Structured feedback program	Acquiring knowledge for handling violent situations	Better awareness of risk assessment and how to deal with aggressive patients (statistical significance not reported)	Randomized controlled trial

Systematic review[b]	Intervention	Outcome	Results	Studies within the systematic review that contributed to the results summarized
Raveel and Schoenmakers (2019)[3]	Mechanical restraints	Complications	Minimal when used for short durations (statistical significance not reported)	1 systematic review
d'Ettorre et al. (2018)[4]	Training based on lectures compared to interactive and dynamic learning methods	Preventing workplace violence	Lectures were less effective than interactive and dynamic learning methods	1 study (type of study not reported)
Weiland et al. (2017)[5]	Education and dialogue	Violent behaviour	Reduction in violent behaviour (statistical significance not reported)	1 pre- and post-intervention study
	Multimodal intervention that included education and training	Assault rates	Decreases in both the intervention and control groups (statistical significance not reported)	1 controlled quasi-experimental study
	Implementation of restraint documentation tools	Restraint use	Decrease (findings from a narrative synthesis)	2 pre- and post-intervention studies
Ramacciati et al. (2016)[6]	Multimodal interventions that included education and training	Assault rates	Inconclusive results	1 quasi-experimental study and 1 review article
Gaynes et al. (2016)[7]	Multimodal interventions including staff training	Seclusion and restraint episodes	Decrease (statistical significance not reported)	2 pre- and post-intervention studies

[a] Unless otherwise described, the comparator groups for the interventions listed in the table were no intervention, usual care, or not described in the evidence reviewed.
[b] Access the full report for more details on the articles included.

Table 2: Pharmacological Interventions to Prevent Violence in the Emergency Department Evidence Summary[a]

Systematic review[b]	Intervention	Outcome	Results	Studies within the systematic review that contributed to the results summarized
Raveel and Schoenmakers 2019[3]	Medication (not specified)	Aggressive patient behaviour	Reduces the incidence (statistical significance not reported)	1 systematic review
Gaynes et al. (2016)[7]	Haloperidol plus lorazepam when compared to lorazepam	Aggressive behaviour	Statistically significant improvements at 60 minutes, statistically significant shorter time until improvement in behaviour, and no medication adverse effects	1 randomized controlled trial
	Droperidol when compared to lorazepam	Combative and aggressive behaviour	Statistically significant decrease when assessed up to 60 minutes after administration (longest time point assessed in study)	1 randomized controlled trial
	Risperidone, olanzapine, quetiapine, and haloperidol	Aggressive behaviour	Improvements from baseline up to 72 hours post-administration; there were no between-group differences found (statistical significance not reported) and few adverse effects	1 non-randomized study

[a] Unless otherwise described, the comparator groups for the interventions listed in the table were no intervention, usual care, or not described in the evidence reviewed.
[b] Access the full report for more details on the articles included.

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References

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