

Inpatient Adult Behavioral Health Violent Events Failure Mode and Effects Analysis (FMEA)

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Abstract: Violence toward healthcare workers is a well-documented challenge in inpatient psychiatric settings. In 2021/2022, psychiatric and substance abuse hospitals reported 110.4 workplace violence incidents per 10,000 full-time workers versus 12.9 in general medical and surgical hospitals (Lombardi et al., 2024). These incidents cause physical injury, psychological trauma, burnout, and safety disruptions, and may require high-risk interventions such as restraints. At AtlantiCare's inpatient psychiatric unit (One Pines), an increase in reported behavioral workplace violence events in 2024 prompted further investigation into underlying patterns and contributing factors. This study employed a two-phase, mixed retrospective and prospective observational design to evaluate these events and the impact of targeted interventions. In the retrospective phase (January 2024–January 2025), safety events were extracted from the RL Datix reporting system and the corresponding electronic health record data, with 21 patient assault events analyzed after duplicate removal. Variables examined included patient diagnoses, antecedent behaviors, recent agitation, commitment status, medication adherence, length of stay, restraint use, and discharge outcomes. Failure Mode and Effects Analysis (FMEA) was used to identify system vulnerabilities and inform the development of interventions. An improvement in patient education was noted as a tangible, practical intervention, and an informative one-page document was created in multiple languages for dissemination to patients upon admission. In the prospective phase (January 1–March 12, 2026), events were tracked following the implementation of the targeted educational intervention in December 2025. The primary outcome was the change in frequency of reported violence events. A comparison of the equivalent pre- and post-intervention periods showed no reduction in event frequency, with 8 incidents reported in each period. These findings suggest that early post-implementation effects may be limited, highlighting the need for ongoing evaluation of intervention fidelity, deeper analysis of event characteristics, and refinement of strategies to improve safety for both patients and staff.