



I34 Implementation of a Quality Improvement Program to Predict and Prevent Inpatient Violence

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After attending this presentation, attendees will understand how to use the Broset Violence Checklist (BVC) to predict violence on an inpatient psychiatric unit and will consider methods of implementing quality improvement projects on inpatient psychiatric services

This presentation will impact the forensic science community by educating forensic scientists about acute violence prediction and strategies to implement systematic programs to reduce violence in hospital settings.

Proposition: This project will investigate the predictive value of admission BVC scores on imminent dangerousness in an acute psychiatric inpatient setting. In addition, methods behind the implementation of a violence reduction quality improvement program will be examined with subsequent proposals for improving and/or continuing staff satisfaction in quality improvement programs.

Synopsis: Bellevue Hospital Center, a public hospital in New York City with over 300 inpatient psychiatric beds, 20% of which are devoted to the treatment of incarcerated males from Rikers Island, implemented a quality improvement project, the Violence Reduction Pathway (VRP), on all of its adult psychiatry units in 2009. The goal was to identify patients who were at imminent risk of violence and then develop specialized treatment plans for those patients in order to reduce episodes of future violence. As part of the VRP, the Broset Violence Checklist (BVC) was used to assess imminent risk of violence.

The BVC measures the presence or absence of one of six behaviors/symptoms that have been shown to have significant relationships with violent episodes within 24 hours: confusion, irritability, boisterousness, physical threats, verbal threats, and attacks on objects. The creators of the BVC, which was designed based on medical records examined at a Norwegian maximum security forensic hospital,¹ recommended a cut-off score of two or greater as this yielded 63% accuracy in predicting violence and 92% accuracy in predicting non-violence within 24 hours of the score being received.²

The BVC has been validated in other inpatient psychiatric settings since its development,^{3,4} although limits of reliability in reporting violent incidents and difficulties with prediction in certain populations,⁵ such as female substance abusers have led to at least some concern about the scales' generalizability.⁴ Some have suggested changing the cut-off score in order to decrease the rate of false positives or false negatives.^{3,4}

Although the VRP was implemented at Bellevue Hospital, there have not yet been any studies to explore its validity, impact on staff work flow, or effectiveness as a quality improvement project. Retrospective data collection on 100 consecutive admissions to the inpatient forensic psychiatric service will be collected. This will include demographic information, admission Broset scores, and information related to violence risk within the first 24 hours, specifically emergency medication administration, crisis management team interventions, and violent incident reports. The data will then be statistically analyzed to determine the predictive value of an admission Broset score of two or higher on the occurrence of each of these three events. In addition to the quantitative analysis, the qualitative arm of the study will describe the way in which the VRP was initially implemented and explore staff opinions about the VRP quality improvement project. A survey, distributed to all of the multidisciplinary staff involved in the VRP's implementation, will help characterize the logistical implementation of the project, the education provided to the staff about the project, the work load associated with its implementation, the perceived utility of the VRP, and any suggestions for improvement. The information provided from this study will help guide future policy decisions regarding inpatient violence risk assessment.

Reference:

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Violence Prediction, Broset, Quality Improvement