6-2019

Pediatric Emergency Department Poster - 2019

Ashley Notartomason MD

Marcella Jewell MD

Joeli Hettler MD

Evaluation of a Nurse Initiated Pathway for Acute Agitation in Behavioral Health Patients in the Pediatric Emergency Department

Ashley Notartomaso MD, Marcella Jewell, Joeli Hettler MD
Department of Pediatric Emergency Medicine, Baystate Medical Center, Springfield, MA

BACKGROUND

- Agitated psychiatric patients in the Emergency Department (ED) present a unique challenge to providers.
- Wide variability exists in the comfort level of providers in treating agitated patients. Techniques cited in the literature include de-escalation, creating a safe environment and medication use when indicated, based on the clinical situation.
- The majority of available literature involves adults. The study of the pediatric behavioral health (BH) population has recently gained interest due to a rise in this patient population in the ED setting.
- Currently at Baystate Medical Center (BMC) in the Pediatric ED, a lot of resources are required to care for the BH patients seen. Patients may become agitated during their ED stay, and currently there is no pathway to assist in management during these situations.
- The objective of the study included creating a local pathway in the Pediatric ED at BMC for acutely agitated behavioral health patients (Fig. 3). By implementing this pathway, our smart aim was to identify/recognize patients earlier who are becoming agitated and create a framework for approaching patients with escalating agitation (Fig. 2).

METHODS

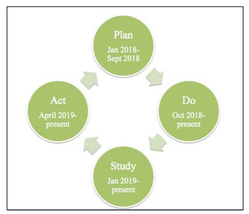

Figure 1: PDSA Study Cycle

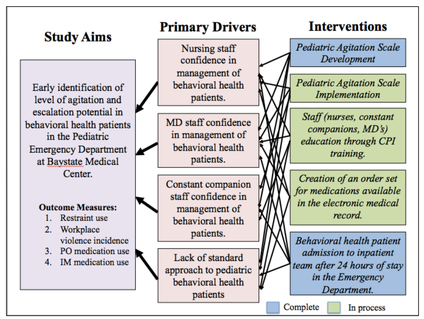

Figure 2: Key Driver Diagram

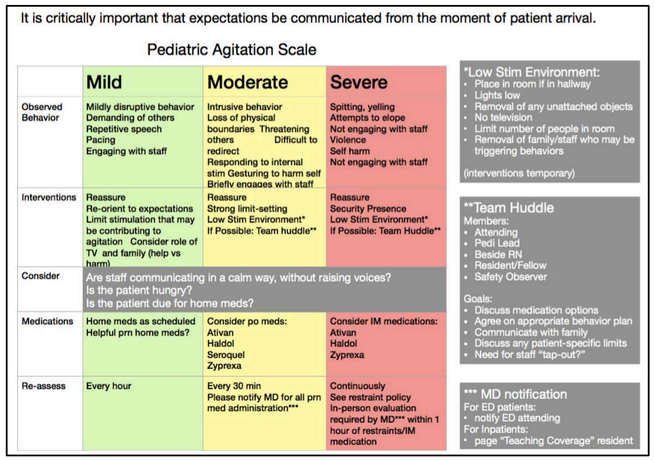

Figure 3: Pediatric Agitation Scale

- The Institute of Healthcare Improvement's Model for Improvement PDSA tool was used to create the framework for our study (Fig.1). The quality improvement project started in January 2018, with collection of preliminary data starting in January 2019.
- The investigation was submitted and deemed exempt by the Institutional Review Board at BMC.
- Patients presenting to BMC Pediatric ED, ages 0 years to 18 years, were included in the analysis if they were referred to BHN/crisis after being medically cleared by the clinician caring for the patient. Patients were excluded from the study who were not medically cleared.

RESULTS

- Data was used from existing quality improvement projects within the Pediatric ED.
- Pre pathway implementation data was obtained starting from October 2016 to establish a baseline. Pathway implementation occurred in October 2018 and post pathway implementation data is currently still being obtained.
- Percent restraint occurrence was evaluated based on behavioral health boarding hours (Fig. 4). Further post pathway implementation data is needed to determine if the increase in restraint events and initiation of the pediatric agitation pathway in October 2018 correlate in a statistically significant way.
- A comparison of percent restraint events and workplace violence based on behavioral health boarding hours was also evaluated (Fig. 5). The peaks of events for restraints and workplace violence correlate with each other.

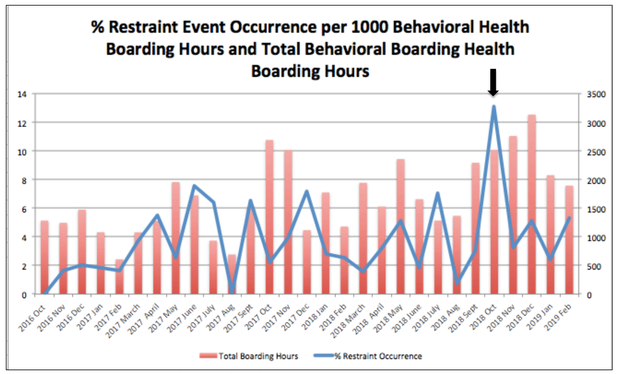

Figure 4: % Restraint Occurrence and Behavioral Health Boarding Hours

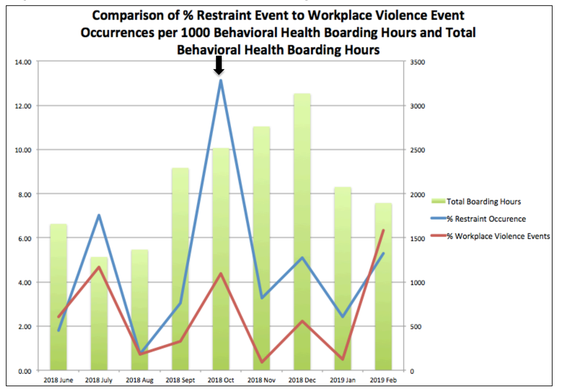

Figure 5: Comparison of Restraint Events to Workplace Violence and Behavioral Health Boarding Hours

⬇ Arrows on Fig. 4 and Fig. 5 represent initiation of the Pediatric Agitation Pathway (October 2018).

CONCLUSIONS

- Seasonal variability in behavioral health boarding hours exist in the Pediatric ED at BMC.
- Preliminary data suggests a decrease in restraint use post pathway implementation, but the data needs additional analysis post implementation to make further conclusions.
- There seems to be a correlation between restraint use and workplace violence, which does not correlate with overall behavioral health boarding hours.
- Future directions include analysis of the frequency of oral medication use and intramuscular medication use after implementation of this pathway. Statistical analysis for significance also needs to be performed.