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Pediatric Emergency Department Poster - 2019

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

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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

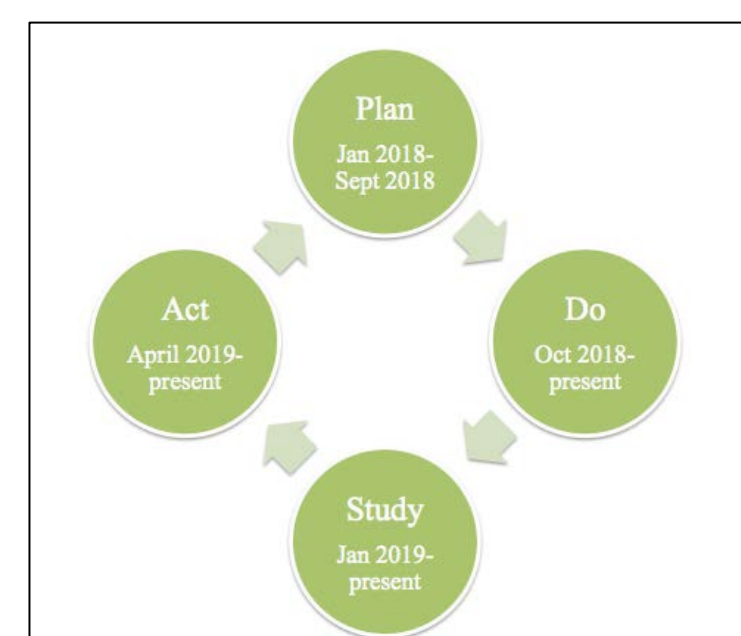


Figure 1: PDSA Study Cycle

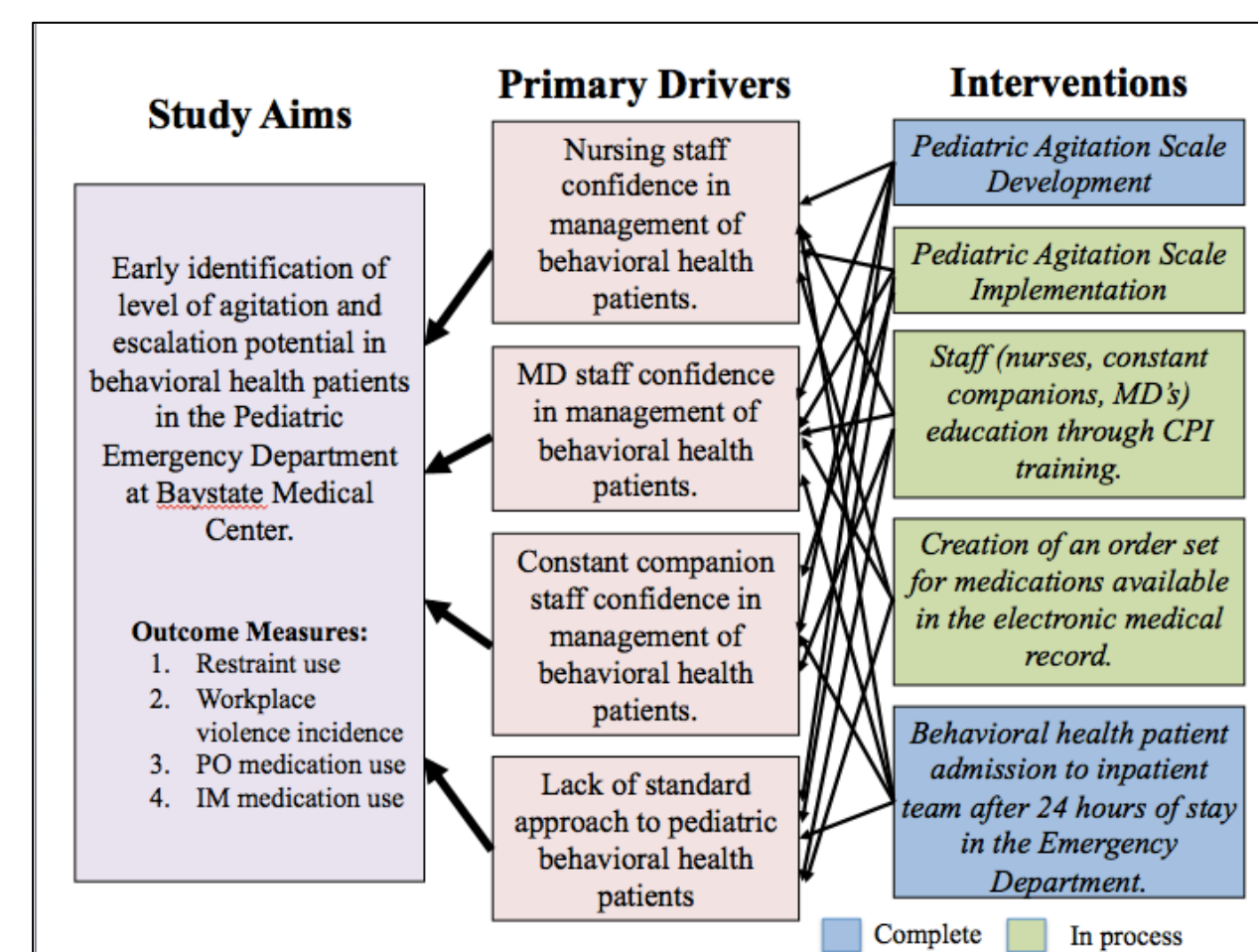


Figure 2: Key Driver Diagram

It is critically important that expectations be communicated from the moment of patient arrival.

	Mild	Moderate	Severe	
Observed Behavior	Mildly disruptive behavior Demanding of others Repetitive speech Pacing Engaging with staff	Intrusive behavior Loss of physical boundaries Threatening others Difficult to redirect Responding to internal stim Gesturing to harm self Briefly engages with staff	Spitting, yelling Attempts to elope Not engaging with staff Violence Self harm Not engaging with staff	*Low Stim Environment: • Place in room if in hallway • Lights low • Removal of any unattached objects • No television • Limit number of people in room • Removal of family/staff who may be triggering behaviors (interventions temporary)
Interventions	Reassure Re-orient to expectations Limit stimulation that may be contributing to agitation Consider role of TV and family (help vs harm)	Reassure Strong limit-setting Low Stim Environment* If Possible: Team huddle**	Reassure Security Presence Low Stim Environment* If Possible: Team Huddle**	
Consider	Are staff communicating in a calm way, without raising voices? Is the patient hungry? Is the patient due for home meds?			***Team Huddle Members: • Attending • Pedi Lead • Beside RN • Resident/Fellow • Safety Observer Goals: • Discuss medication options • Agree on appropriate behavior plan • Communicate with family • Discuss any patient-specific limits • Need for staff "tap-out?"
Medications	Home meds as scheduled Helpful prn home meds?	Consider po meds: Ativan Haldol Seroquel Zyprexa	Consider IM medications: Ativan Haldol Zyprexa	*** MD notification For ED patients: • notify ED attending For inpatients: • page "Teaching Coverage" resident
Re-assess	Every hour	Every 30 min Please notify MD for all prn med administration***	Continuously See restraint policy In-person evaluation required by MD*** within 1 hour of restraints/IM medication	

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 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.

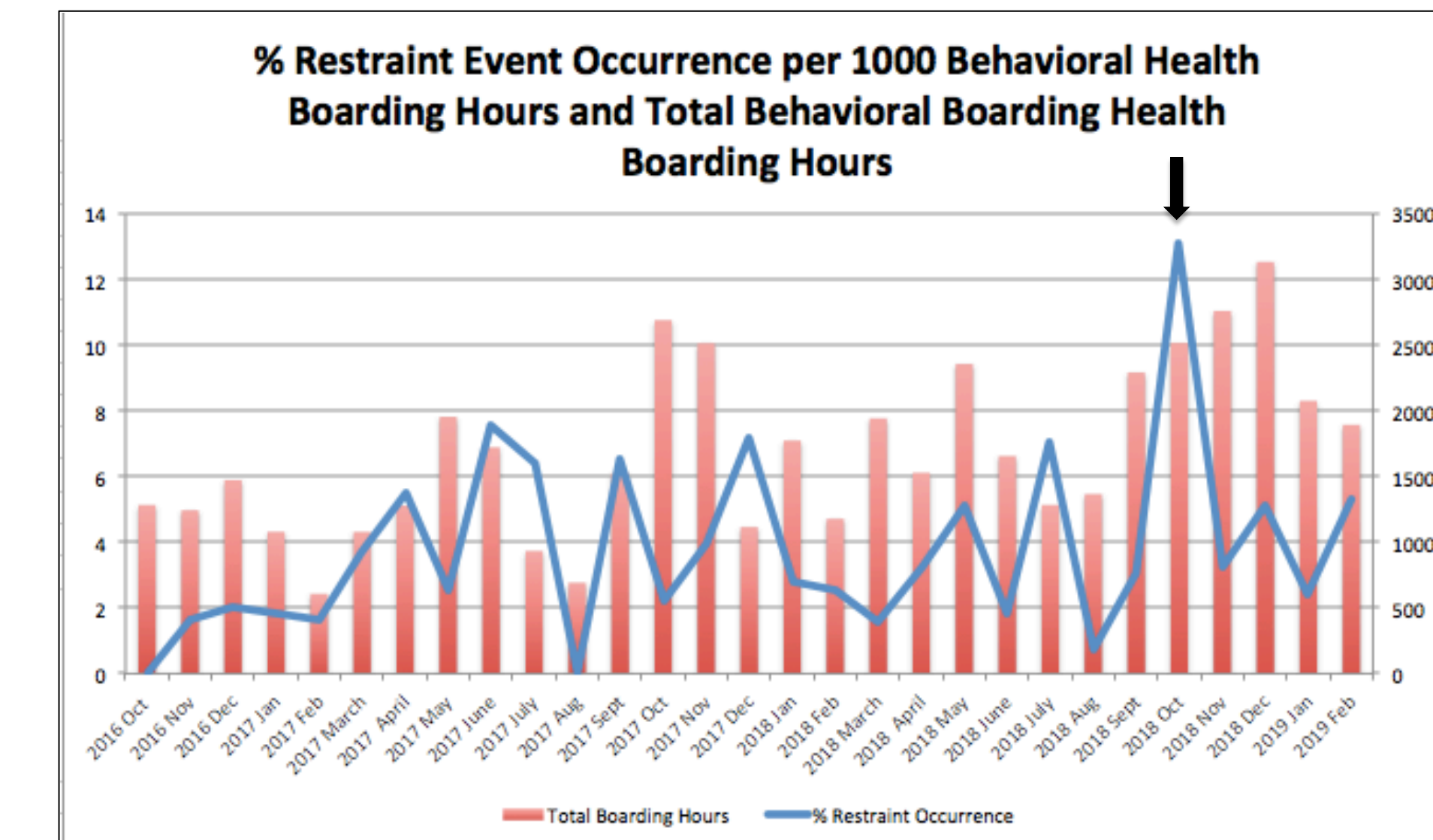


Figure 4: % Restraint Occurrence and Behavioral Health Boarding Hours

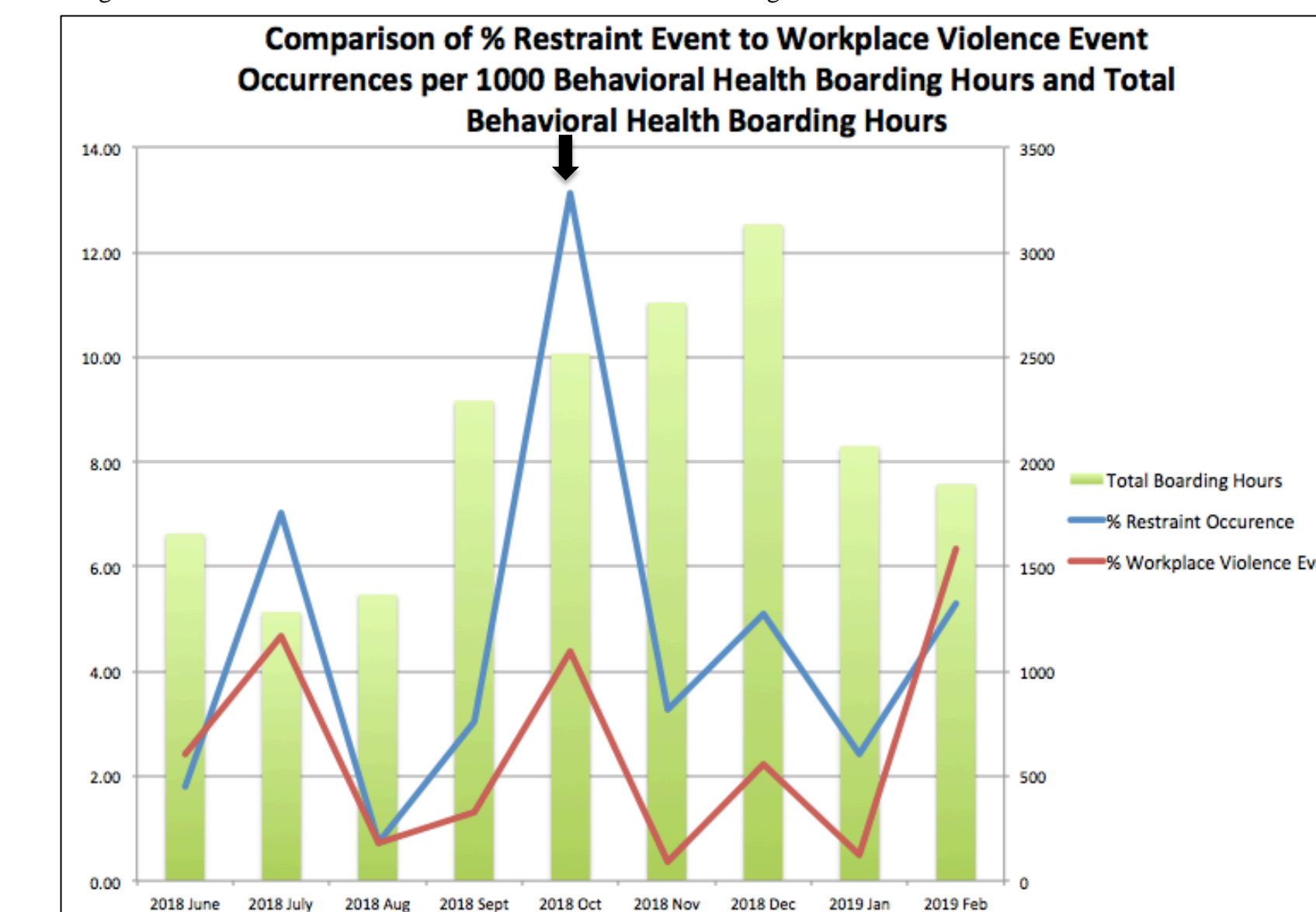


Figure 5: Comparison of Restraint Events to Workplace Violence and Behavioral Health Boarding Hours

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.