

Improving Safety in the Pediatric Emergency Department through Early Violence/Aggression

Assessment

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Abstract

Problem & Purpose: The Pediatric Emergency Department (PED) setting is not exempt from workplace violence (WPV). Frontline staff in the PED have identified concerns around a rise in WPV incidents over the last few years. From January 1, 2018 through March 5, 2019, this PED saw 2,058 mental/behavioral health visits. Of mental/behavioral health focused visits, 79 visits (3.8%) resulted in coercion in the form of intramuscular antipsychotic or anxiolytic medication administration related to aggressive or violent behavior. The purpose of this project was to implement and evaluate the effectiveness of a violence risk assessment tool in a PED setting.

Methods: This quality improvement (QI) project involved training PED Psychiatric RNs in an urban, academic PED on the use of the Pediatric Violence/Aggression Assessment Tool (P-VAAT) to screen patients aged 8 years-17 years presenting with a chief complaint related to acute mental/behavioral health concerns. The P-VAAT score assisted the RNs to determine preventive or early intervention measures to implement in the interest of patient and staff safety.

Results: Of 297 eligible patients, 152 were screened resulting in a 51.1% tool completion rate. One hundred twenty eight patients scored as 'Low' risk, 12 scored as 'High' risk, and 12 as 'Moderate' risk. Of those that scored 'High,' five exhibited violent/aggressive behavior during their encounter. Of these five, four required a short-term physical hold with intramuscular anxiolytic/antipsychotic medication administration and one was placed in seclusion. Another patient in the 'High' group was de-escalated and cooperative taking oral anxiolytic/antipsychotic medication.

Conclusion: Observed and reported feedback through personal interactions with RNs support the ease of use and effectiveness of the Pediatric Violence/Aggression Assessment Tool (P-VAAT). RNs report early identification of risk for violence allows for better preparation and safety in potential outbursts. Opportunity exists to expand this QI project with a focus on the use of this tool to include medical patient as well as building the P-VAAT into the electronic medical record system.

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Assessment

Introduction

Nurses and other frontline healthcare workers face adversity every day in the care delivery of their patients. In the Emergency Department (ED) setting, workers are particularly vulnerable to victimization by aggressive or violent patients and families for a variety of reasons that include treating patients with histories of mental health and substance use disorders, social dysfunction, and sensitivities or inability to cope with being in a high-stress environment. Many initiatives now exist on a global scale to improve the safety of frontline emergency healthcare workers so they can focus on doing their jobs and not worry about being injured in the meantime.

The National Institute for Occupational Safety and Health (NIOSH) (2018) supports the definition of Workplace Violence (WPV) as any threatening behavior, verbal abuse, or physical assault that occurs in the work setting or while on duty. WPV incidents occur when staff are threatened, abused, or assaulted in work-related circumstances, including during their commute to and from work, which involves any obvious or discrete challenge to their safety or overall well-being (International Labour Organization (ILO), International Council of Nurses (ICN), World Health Organization (WHO), & Public Services International (PSI), 2002). Healthcare workers are particularly vulnerable to WPV. From 2002 to 2013, the healthcare industry saw serious WPV incidence rates four times greater than private industry (Occupational Safety and Health Administration (OSHA), 2015). According to a 2013 report from the Bureau of Labor Statistics, patients are the largest source of WPV in the healthcare setting attributing to 80% of

violent events. Clients or other customers in this setting make up another 12% of these WPV incidents (OSHA, 2015). In previous survey reports, it has been revealed that 21% of registered nurses and nursing students reported being physically assaulted, and over 50% verbally abused, in a 12-month period (OSHA, 2015). Additionally, 12% of emergency department nurses experienced physical violence, and 59% experienced verbal abuse, during just a seven-day period (Emergency Nurses Association, 2011).

Not highlighted in literature surrounding WPV, the pediatric emergency department (PED) setting is affected by violence from patients. Frontline staff in the PED in a large, urban, academic hospital, the site of interest for this project, have identified concerns around a rise in WPV incidents in recent years. For the period beginning January 1, 2018 and ending March 5, 2019, this PED saw 2,058 mental/behavioral health visits. Of these encounters, 79 (3.8%) resulted in coercion in the form of intramuscular antipsychotic or anxiolytic medication administration related to aggressive or violent behavior (M.E. Wilson, personal communication, March 12, 2019).

The Joint Commission (TJC) (2018) established seven actions to combat WPV, which including developing quality improvement initiatives to reduce incidents of workplace violence. One such initiative is the implementation of a risk assessment to support early identification of one's propensity for violent behavior in an acute care setting. Structured risk assessment has been shown to decrease violence and coercion (Abderhalden et al., 2008).

Word-of-mouth knowledge from colleagues supports a common violence risk assessment tool of choice is the Brøset Violence Checklist (BVC) (Almvik, Woods, & Rasmussen, 2002) and its various adaptations. Using the BVC as the frame, a tool further adapted from one established by the Public Services Health and Safety Association™ (2010) was developed for

use in assessing the violence risk of the acute pediatric mental/behavioral health patient. In addition to assessing risk, the Pediatric Violence/Aggression Assessment Tool (P-VAAT) offers guidance on intervention dependent on the level of risk identified. The purpose of this DNP project was to implement and evaluate the effectiveness of a violence risk assessment tool in the PED.

Literature Review

Luck, Jackson, and Usher (2007) report on a tool based on observable behavior to predict the potential for violence in emergency department (ED) patients. Described through the acronym STAMP, (Staring and eye contact, Tone and volume of voice, Anxiety, Mumbling, and Pacing) this tool is a practical nursing framework to assess risk for violence in the emergency department (ED). The strength in this tool lies in its simplicity in application and ease of use further evidenced by the support reported by Calow, Lewis, Showen, and Hall (2016) of STAMP being the most frequently used tool in the ED setting with a focus on adult patients.

Kim, Ideker, and Todicheeny-Mannes (2011) combined elements of existing tools in their report on the Aggression Behaviour Risk Assessment Tool (ABRAT) in the medical/surgical setting targeting a population of adult patients. Little was previously known of the utility or applicability of existing tools directed toward an inpatient medical/surgical setting. The 10-item ABRAT was shown to have acceptable inter-rater reliability, sensitivity and specificity and could be useful in identifying the risk for violence in its intended setting. Because little has been studied by way of risk assessment in this adult medical/surgical setting, more work is needed to assure its overall usefulness.

In what many tout as the standard for violence risk assessment tools, Almvik, Woods, & Rasmussen (2002) discuss a short-term violence prediction tool used in acute psychiatric care, which has further successfully been adapted by the Public Services Health and Safety Association (PSHSA) in Ontario, Canada to be utilized in the ED setting. The Brøset Violence Checklist (BVC) consists of a six-item checklist that assists in the prediction of imminent violent behavior (Almvik, Woods, & Rasmussen, 2002). Based on observed behaviors, the BVC offers as a strength its ease of use and wide applicability to patient populations. It has been widely adopted into varying practice settings such as medical/surgical inpatient areas.

While there is paucity in the literature surrounding violence risk assessment in relation to the pediatric population in the ED care setting, there is some emerging evidence of its utility. Barzman, Mossman, Sonnier, and Sorter (2012) support the reliability of the most recent version of the Brief Rating of Aggression by Children and Adolescents 0.9 (BRACH 0.9). This 14-item instrument is intended to assess children and adolescents preparing for inpatient psychiatric admission. Inter-rater reliability for individual items ranged from good to almost perfect, making it a useful tool in assessing violence risk in pediatric patients.

Abderhalden et al., (2008) supports that the use of violence risk assessment can significantly decrease violence. A 41% reduction in severe aggressive incidents and a 27% decline in the use of coercive measures was observed with the use of structured risk assessment. A key to reducing violence in the healthcare setting is early identification of those at risk for aggression and violence in order to prevent violent episodes from occurring.

Of the tools evaluated, inter-rater reliability was strong with the BRACH 0.9 (Barzman, Mossman, Sonnier, and Sorter, 2012), ABRAT (Kim, Ideker, and Todicheeney-Mannes, 2011), and BVC (Almvik, Woods, & Rasmussen, 2002). Support of inter-rater reliability is imperative

support for the utility of a chosen tool to be implemented in respective care settings. Frequent mention of the use of the BVC in adapted forms occurred but, there is no standard for violence risk assessment, which is an idea that may be worth developing further.

Limitations of all studies were around a similar theme of focused practice settings that leaned heavily toward adult inpatient medical/surgical units and may not translate exactly into the ED setting. Visitors, family members, and non-psychiatric patients who are sources of violence in the healthcare workplace setting were not figured into any of the data associated with the studies discussed here. The omission of this data may skew findings as the true incidence and injury rates are not being reported. Further, Calow, Lewis, Showen, and Hall (2016) note in their review of the literature of tools used in the ED, the ED sample size was smaller (n=196) compared with the inpatient studies (n = 19,372). A smaller sample size may lend itself to lesser support of validity in result reporting. The reason for small sample size in the ED studies is unknown, and it is recommended that further research in the ED setting studying the usefulness of risk assessment tools be done.

There is limited evidence available related to the use of risk assessment tools in the PED. One consideration is the varying environments of emergency departments do not allow for separate pediatric and adult units making it difficult to capture accurate reporting on workplace violence episodes, their precursors, as well as what mitigation factors exist to serve all populations. Further research is recommended into the development of a tool that can be applied to patients in the PED setting. Appendix C presents further information related to the review of all evidence presented.

Theoretical Framework

WPV in the PED is a multidimensional problem that demands review at every angle. The Haddon Matrix is a theoretical framework designed to apply the traditional public health domains of host, agent, and disease to primary, secondary, and tertiary injury factors (McPhaul & Lipscomb, 2004). When the Haddon Matrix was applied to WPV in the PED, the host was the victim of workplace violence, such as a PED employee. The vehicle was the patient or visitor, while the environment considered both physical and social factors. The location of an assault, such as the hospital, is as important as the social setting with regard to patient interaction, coworker presence, and managerial support.

The Haddon Matrix is classic to an epidemiologic model in that it uses a matrix to categorize pre-, during, and post-event activities according to the infectious disease vernacular host (victim), vector (perpetrator), and environment. A third dimension allows prevention or mitigation strategies to be categorized as behavioral, administrative, or environmental. Strengths of this model include the ability to assess pre-event factors, the precursors to violence or aggression, in order to develop primary preventive measures. The purpose of a risk assessment tool is to ultimately prevent injury to healthcare workers, prevent patient suicide or self-harm, and deescalate a patient before a violent act occurs (Callow, Lewis, Showen, & Hall, 2016). From the Haddon Matrix, implementing a violence risk assessment tool in this pediatric setting has supported development of attainable, sustainable primary preventive measures to decrease episodes of violence. Appendix B provides an application of the Haddon Matrix to WPV in the setting of interest for this project.

Methods

Population and Setting

This quality improvement DNP project focused on pediatric patients aged 8-17 years old with a chief complaint of mental or behavioral health crisis in a large urban, academic Pediatric Emergency Department (PED). Patients excluded from this project were those pediatric patients outside of the identified age range and with medical chief complaints. During a previous 14-month time period, 2,058 patient visits in this PED were classified as mental/behavioral health, with greater than 90% of these patients meeting criteria for P-VAAT completion (M.E. Wilson, personal communication, March 14, 2019).

Change in Structures and Process

In assessing this PED with consideration for implementation of the P-VAAT, it was determined there are areas of opportunity for both structural and process improvement. The environment (structure) in this busy PED is often loud and overstimulating, particularly for patients in crisis. Identifying the need for an improved calm environment that can be patient-specific allowed for improved opportunity for de-escalation and a collaborative patient experience. The recent establishment of approved seclusion space in this setting has served to help with a structural improvement need.

Existing policies and procedures (processes) carried out by staff with varying levels of training around managing violent or aggressive incidents, specifically with coercion, are effective but not preferred. While there is much discussion and education around reaction to untoward incidents, there was not a proactive measure in place to reduce violent and aggressive incidents. A goal of this DNP project was to improve this process, to start. By implementing a

violence risk assessment process, WPV incidents should decrease and improved safety conditions for patients and staff should occur.

Strategies and tactics that were used to implement this practice change included education of the PED Psych RNs on the use of the P-VAAT. The simple curriculum consisted of an introduction of the project and tool, how to complete the tool, and where to store the completed tools for collection by the DNP student (Appendix D). Individuals trained on the tool demonstrated competency through verbally discussed case scenarios during the training sessions as well as successful completion of the tool in their practice.

Further strategies and tactics used during the implementation period included monthly meetings with local frontline change agents as well as engaged faculty and leaders. Additionally, one-on-one meetings with the local project champion occurred monthly or more frequently if needed. Email correspondence with all stakeholders was maintained throughout the implementation period.

Data Collection

One objective of this project was to have 100% RN adherence with completion of the P-VAAT for all patients meeting criteria. Completed assessment tools were scanned into the patient's electronic medical record (EMR) and then placed into a labeled folder central to the work area in a protected space.

With the assistance and engagement from Mary Ellen Wilson, PED Nursing Informaticist, additional data was obtained. Chart audits were completed to capture data for tracer including history, encounter information, and outcomes. Incidence of violence/aggressive

episodes as well as coercive events was identified through chart audits and compared with data from completed assessments collected throughout the implementation period.

Data Analysis

Demographic data was analyzed for age and gender of those in the 'High' score group. The P-VAAT completion compliance rate was analyzed by comparing the number of completed tools against the number of possible encounters as discovered through EMR census audits once encounters were filtered for inclusion criteria. With particular attention to the 'High' risk score group, the incidence of documented violence/aggression events with or without coercive measures was identified through chart review and analyzed by discovering percentage of occurrence.

Results

Of 297 eligible patients identified through EMR audit and filtered for inclusion criteria, 152 were successfully screened by the PED Psych RNs resulting in a 51.1% tool completion rate (Figure 1). Of these 152 patients, 128 patients scored as 'Low' risk (84.2%), 12 (7.89%) scored as 'High' and 12 (7.89%) as 'Moderate' (Figure 2). Of those that scored 'High,' five (41/7%) exhibited violent/aggressive behavior during their encounter. Of these five, four (80%) required a short-term physical hold with intramuscular anxiolytic/antipsychotic medication administration and one (20%) was placed in approved seclusion space. An additional patient in the 'High' group was able to be de-escalated from an increasingly agitated state and cooperated with taking oral anxiolytic/antipsychotic medication.

Discussion

A critical step in successful implementation of an assessment tool such as the P-VAAT is the actual use and completion of the tool. For this project, the compliance rate of tool completion (51.2%) was less than the goal of at least 80%, but overall, the tool accurately supported assessment. Additionally, P-VAAT scores accurately aligned with the PED Psych RN assessments. Through informal discussion with frontline staff and project champions it was learned that an established method of violence and aggression assessment lent itself to being able to establish a safer environment to care for the high risk patient and being better prepared to intervene in patient cases with an early indication of risk for outbursts.

Limitations of this QI project included late training of RNs who were on leaves of absence at the time of initial training and implementation as well as busy and hurried moments of patient intake where the assessment was forgotten. Additionally, while there is an included question to identify existing development delay or cognitive impairment in these patients, this was not considered in the analysis. Future considerations would be to analyze atypically developed patients to determine if this is a contributing factor to violence and/or aggression in the PED.

Conclusions

Observed and reported feedback through personal interactions with RNs support the ease of use and effectiveness of this P-VAAT assessment tool. Additionally, the PED Psych RNs report they felt the early identification of risk for violence allowed them to feel better prepared and safer with regard to potential outbursts. Addressing the P-VAAT completion rate, it was discovered that two RNs returned from leaves of absence during the implementation period and

were not involved in the initial training. This may have contributed to missed patient assessments simply by lack of knowledge. The local project champion was able to capture training for these RNs and improvement was seen in tool completion.

The P-VAAT is adapted from an existing valid, reliable tool. There is opportunity to validate the P-VAAT as designed for this project to establish this assessment as best practice. Once this validation occurs, further opportunity exists to expand this QI project to include the use of P-VAAT in assessing patients in the PED presenting with medical chief complaints. There is also local interest to utilize this tool with those patients with Autism Spectrum Disorder to determine its efficacy in identifying risk potential for the challenging population.

References

- Abderhalden, C., Needham, I., Dassen, T., Halfens, R., Haug, H-J., & Fischer, J.E. (2008). Structured risk assessment and violence in acute psychiatric wards: randomized controlled trial. *The British Journal of Psychiatry*, *193*, 44-50. doi: 10.1192/bjp.bp.107.045534
- Almvik, R., Woods, P., & Rasmussen, K. (2000). The Brøset violence checklist: Sensitivity, specificity and interrater reliability. *Journal of Interpersonal Violence*, *15*(12), 1284-1296.
- Barzman, D., Mossman, D., Sonnier, L., & Sorter, M. (2012). Brief rating of aggression by children and adolescents (BRACHA): a reliability study. *Journal of the American Academy of Psychiatry and Law*, *40*, 374-382. Retrieved from <https://pdfs.semanticscholar.org/55b9/bae9c373a130a593177ed848d02afd7f1e16.pdf>
- Calow, N., Lewis, A., Showen, S., Hall, N. (2016). Literature synthesis: patient aggression risk assessment tools in the emergency department. *The Journal of Emergency Nursing*, *42*(1), 19-24. <https://doi.org/10.1016/j.jen.2015.01.023>
- Emergency Nurses Association. (2011). Emergency department violence surveillance study. Retrieved from https://www.ena.org/docs/default-source/resource-library/practice-resources/workplace-violence/2011-emergency-department-violence-surveillance-report.pdf?sfvrsn=5ad81911_4
- Gates, D., Gillespie, G., Smith, C., Rode, J., Kowalenko, T., & Smith, B. (2011). Using action research to plan a violence prevention program for emergency departments. *Journal of Emergency Nursing*, *37*, 1, 32–39. doi: 10.1016/j.jen.2009.09.013

- International Labour Organization, International Council of Nurses, World Health Organization, & Public Services International. (2002). Framework guidelines for addressing workplace violence in the health sector. Retrieved from <http://apps.who.int/iris/bitstream/handle/10665/42617/9221134466.pdf?sequence=1&isAllowed=y>
- The Joint Commission. (2018). Physical and verbal violence against health care workers. *Sentinel Event Alert*, 59, 1-9. Retrieved from https://www.jointcommission.org/assets/1/18/SEA_59_Workplace_violence_4_13_18_FINAL.pdf
- Kim, S.C., Ideker, K., & Todicheeney-Mannes, D. (2012). Usefulness of aggressive behaviour risk assessment tool for prospectively identifying violent patients in medical and surgical units. *Journal of Advanced Nursing*, 68(2), 349-357. <https://doi.org/10.1111/j.1365-2648.2011.05744.x>
- Luck, L., Jackson, D., & Usher, K. (2007). STAMP: components of observable behavior that indicate potential for patient violence in emergency departments. *Journal of Advanced Nursing*, 59(1), 11-19. doi: 10.1111/j.1365-2648.2007.04308.x
- McPhaul, K. & Lipscomb, J. (2004). Workplace violence in health care: Recognized but not regulated. *Online Journal of Issues in Nursing*, 9(3). Retrieved from <http://ojin.nursingworld.org/MainMenuCategories/ANAMarketplace/ANAPeriodicals/OJIN/TableofContents/Volume92004/No3Sept04/ViolenceinHealthCare.aspx>
- The National Institute for Occupational Safety and Health (NIOSH). (2018). Occupational Violence. Retrieved from <https://www.cdc.gov/niosh/topics/violence/>

Occupational Safety and Health Administration (OSHA). (2015). Workplace violence in healthcare. Retrieved from <https://www.osha.gov/Publications/OSHA3826.pdf>

Public Services Health and Safety Association™. (2010). Completing the violence/aggression assessment checklist (VAAC) for emergency departments (ED) or emergency medical services (EMS). Retrieved from https://www.pshsa.ca/wp-content/uploads/2013/08/VAACEtool_instruction.pdf

Stricker, F.R., O'Neill, K.B., Merson, J., and Feuer, V. (2018). Maintaining safety and improving the care of pediatric behavioral health patients in the emergency department. *Child and Psychiatric Clinics of North America*, 27(3), 427-439. doi: <https://doi.org/10.1016/j.chc.2018.03.005>

Figure 1. Rate of completion of P-VAAT tools.

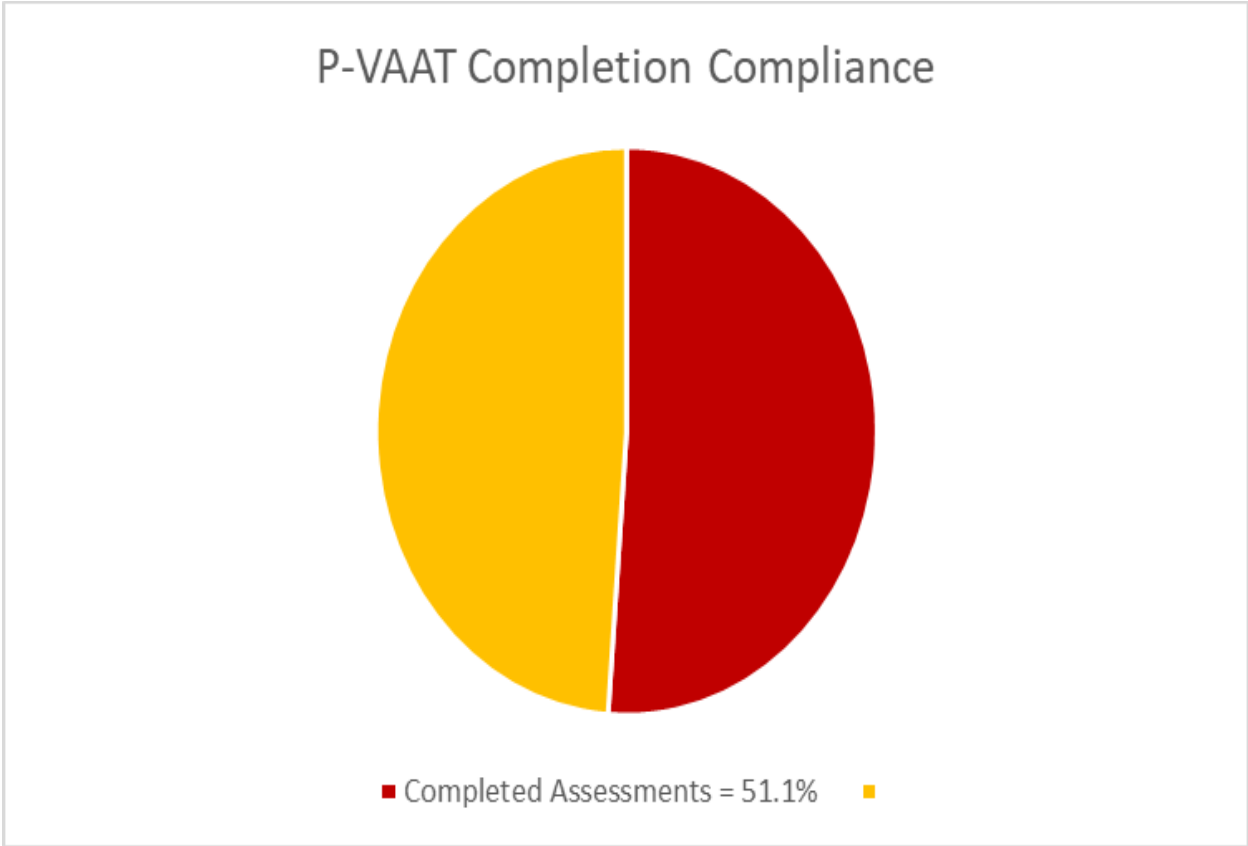
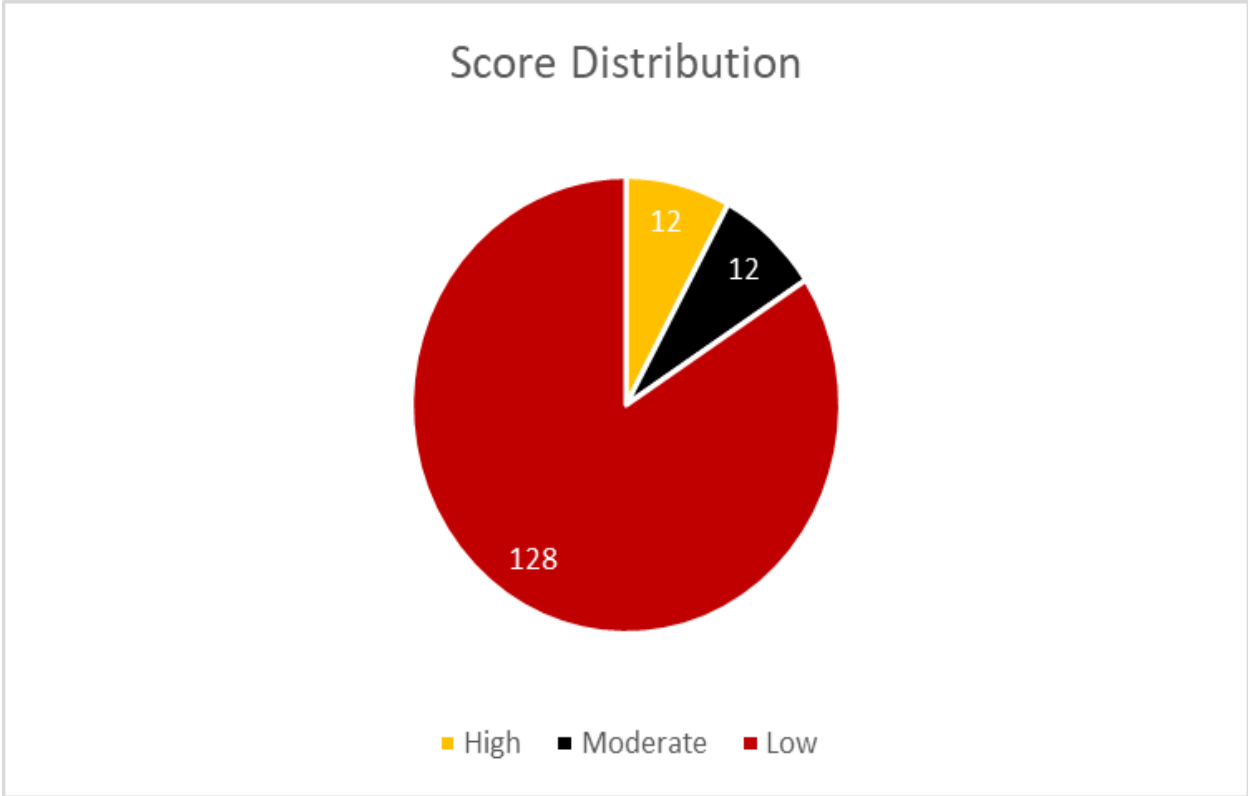


Figure 2. Score distribution among completed P-VAATs.



Appendix A

P-VAAT: Pediatric Violence/Aggression Assessment Tool

To be completed by PED Psychiatry RN:

Patient's Name/MRN: _____ Date of Service: _____

Known history of being aggressive toward a caregiver or person of authority: Yes NoKnown developmental delays or cognitive impairment? Yes No

Behavior	Yes/No	Description (one or all)
Uncooperative	Yes No	Easily annoyed or angered, will not follow instructions
Verbal Abuse	Yes No	Verbal attacks, name calling, neutral comments made in aggressive manner
Hostile/Destructive	Yes No	Overtly loud (i.e. slams doors, shouts); Pointed attack at objects (not person): throwing, banging, head-banging, smashing furniture
Threats	Yes No	Verbal outburst more than raised voice with intent to intimidate or threaten another person. Observed intent to threaten (making a fist, aggressive stance, raising arm or leg, etc.)
Combative/Assaultive	Yes No	Attack or force directed at another person: kick, punch, clothes grabbing, spitting, use of weapon of opportunity
Known risk factors (i.e. pain, wait time, fear, relationship with person(s) present, substance use)	List factors:	
Behavior	Risk	Intervention
No observed behavior	Low	No intervention required
History or Uncooperative or Verbal abuse	Moderate (requires intervention)	List intervention:
One (1) or more in shaded area or two (2) or more in non-shaded area	High (requires prevention)	List preventive measures:

Risk of Violence	
Moderate	High
Notify members of Behavioral Emergency Response Team	Security detail
Reassess behavior and document triggers	Place in safe/seclusion room
	Provide frequent communication with patient
	Notify Behavioral Emergency Response Team (BERT)
	Monitor behavior frequently and document triggers

Adapted from PSHSA (2010) Violence/Aggression Assessment Checklist (VAAC) for Emergency Departments(ED). All Rights Reserved.]

Appendix B: Haddon Matrix

	Host (employee) factors	Vector and vehicle (patient/visitor) factors	Physical/social environmental factor
Before Assault	<ul style="list-style-type: none"> • Education and training (CPI; VRA) • Policy and procedures • Preventing aggressive behavior • De-escalation and conflict resolution • Managing aggression 	<ul style="list-style-type: none"> • Communication to patients and visitors of zero tolerance policy and consequences related to actions • Minimize anxiety for waiting patients and visitors by communicating with them frequently (q30min) 	<ul style="list-style-type: none"> • Develop and communicate zero tolerance policy to employees and management • Development and implementation of WPV policies and procedures (VRA) • Manager education • Security/police response/policies and education • Monitor access to emergency department • Develop process to alert staff when patients/visitors who were previously violent visit the PED again (VRA) • Quiet environment/areas • Special area for aggressive individuals/safe room • Enforce visitor policies
During Assault	<ul style="list-style-type: none"> • Education and training • Nonviolent crisis intervention (CPI) 	<ul style="list-style-type: none"> • Isolate perpetrator from others 	<ul style="list-style-type: none"> • Security/police plan • Implement procedures for dealing with violent event • Create procedure for investigating physical threats
After Assault	<ul style="list-style-type: none"> • Critical incident debriefing • Mandatory reporting of all physical assaults and physical threats 	<ul style="list-style-type: none"> • Reporting to security/police • Maintain patient's/visitor's name for alerting staff upon return visit 	<ul style="list-style-type: none"> • Create procedure for reviewing violent event

Haddon's Matrix as applied to WPV in the PED. Adapted from Gates, D., Gillespie, G., Smith, C., Rode, J., Kowalenko, T., & Smith, B. (2011). Using action research to plan a violence prevention program for emergency departments. *Journal of Emergency Nursing*, 37, 1, 32–39. doi: 10.1016/j.jen.2009.09.013

Abbreviations: WPV, workplace violence; PED, pediatric emergency department; VRA, violence risk assessment; CPI, Crisis Prevention Institute

Appendix C

Table 1. Evidence review table for violence risk assessment.

Author, year	Study objective/intervention or exposures compared	Design	Sample (N)	Outcomes studied (how measured)	Results	*Level and Quality Rating
Abderhalden, Needham, Dassen, Halfens, Haug, & Fischer, 2008	To assess whether structured violence risk assessments decrease the incidence of violence and coercion	RCT	14 acute psychiatric admission wards including a preference arm	1) Changes in rates of severe aggressive events and coercive measures; Incidents recorded through use of revised Staff Observation Aggression Scale (SOAR-R). Coercive measures recorded on standardized form already established.	Rate of severe aggressive events according to SOAS-R score of 9 or greater declined in both control and intervention arms. The decline in the intervention arm was significantly greater than the control (p <0.001). Secondary outcomes reported as intervention arm significant with reduction in attacks and coercive measures (p <0.001).	2 B
Almvik, Woods, & Rasmussen, 2000	To describe and support validity of BVC	Empirical research	N=109 patients	Violent incidents recorded using standardized tool based on Staff Observation Aggression Scale (SOAS)	12 patients involved in 33 evaluable incidents Difference between BVC scores of violent and non-violent patients significant by chi-square with p<0.001 of all six behavior indicators. Non-violent patients scored significantly lower on BVC than violent patients Sensitivity and specificity indicating BVC is discriminating against violent/non-violent with 63% accuracy in predicting	6 B

					violence and 92% accuracy predicting non-violence	
Kim, Ideker, & Todicheeny-Mannes, 2012	To evaluate usefulness of the Aggressive Behaviour Risk Assessment Tool (ABRAT) to prospectively identify violent patients in the med/surg setting.	Prospective cohort study	N= 2063 patients admitted to med/surg unit of interest	To assess incidence of violence on med/surg unit Construct user-friendly violence risk assessment tool (ABRAT) To determine optimal cutoff scores of ABRAT using ROC analysis To estimate sensitivity, specificity, and interrater reliability of ABRAT	2.7% of patients experienced violent events. Bivariate correlation analysis revealed that all 17 items on the assessment checklist had significant correlation with at least one or more event; entered into a multivariate logistic regression model and 10 items emerged as potential positive predictor variables At cutoff score of 1, ABRAT has sensitivity of 71% and specificity of 89%. At cutoff score of 2, sensitivity is 43% but specificity of 98%. Interrater reliability was 92.9% and 96.5% at cutoff of 1 and 2, respectively; Cohen's Kappa values were 0.658 (p <0.001) and 0.470 (p < 0.001)	4 B
Luck, Jackson, & Usher, 2007	To analyze components of observable behavior as indicators for potential violence	Mixed methods case study	Mixed method: 290 observation hours 16 semi-structured interviews 13 informal field interviews	Elements of observable behavior identified by observation and through interview data	Five elements of observable behavior distinctly identified: Staring Tone and volume of voice Anxiety Mumbling Pacing	6 B
Calow, Lewis, Showen, & Hall, 2016	To evaluate the use of aggression risk assessment tools regarding workplace violence (WPV) in the	Systematic review of the literature	Evaluation of the evidence was completed using a 7-step systematic review method. Initial search	Reduction of potential violence toward staff in the ED setting	The STAMP tool and the BVC are the most prevalent risk assessment tools used in the hospital to reduce violence toward staff members	5B

	emergency department and the reduction of the future risk of violence toward ED health care staff.		yielded n= 589. Further abstract review of n=56, with final review of the literature n=13		No studies were found to dispute the validity or sensitivity of these two tools	
Barzman, Mossman, Sonnier, & Sorter, 2012	To investigate the inter-rater reliability of the BRACHA 0.9	Reliability study	N= 10 workers who received training from the manual, watched 24 10-minute videos of children simulating varying levels of acuity in risk for aggression	Inter-rater reliability by comparing each worker's rating of the video watched.	Inter-rater reliability for individual items ranged from good to almost perfect, with Kendall's W exceeding 0.75 for eight of 14 BRACHA items The BRACHA appears to be an accurate, highly reliable instrument for assessing the risk of aggression by children and adolescents who are about to undergo psychiatric hospitalization.	6 B

Rating System for Hierarchy of Evidence

Level of the Evidence

Type of the Evidence

I (1)	Evidence from systematic review, meta-analysis of randomized controlled trials (RCTs), or practice-guidelines based on systematic review of RCTs.
II (2)	Evidence obtained from well-designed RCT
III (3)	Evidence obtained from well-designed controlled trials without randomization
IV (4)	Evidence from well-designed case-control and cohort studies
V (5)	Evidence from systematic reviews of descriptive and qualitative studies
VI (6)	Evidence from a single descriptive or qualitative study
VII (7)	Evidence from the opinion of authorities and/or reports of expert committees

Melnyk, B.M. & Fineout-Overholt, E. (2014). *Evidence-based practice in nursing & healthcare: A guide to best practice* (3rd ed.). New York: Lippincott, Williams & Wilkins.

Rating Scale for Quality of Evidence

A: High – consistent results with sufficient sample, adequate control, and definitive conclusions; consistent recommendations based on extensive literature review that includes thoughtful reference to scientific literature

B: Good – reasonably consistent results; sufficient sample, some control, with fairly definitive conclusions; reasonably consistent recommendations based on fairly comprehensive literature review that includes some reference to scientific evidence

C: Low/major flaw – Little evidence with inconsistent results; insufficient sample size; conclusions cannot be drawn

Newhouse, R.P. (2006). Examining the support for evidence-based nursing practice. *Journal of Nursing Administration*, 36(7-8), 337-40.

Appendix D
P-VAAT in the PED: What you need to know

What: According to a 2013 report from the Bureau of Labor Statistics, patients are the largest source of WPV in the healthcare setting attributing to 80% of violent events. Clients or other customers in this setting make up another 12% of these events (OSHA, 2015). In previous survey reports, it has been revealed that 21% of registered nurses and nursing students reported being physically assaulted, and over 50% verbally abused, in a 12-month period (OSHA, 2015). Additionally, 12% of emergency department nurses experienced physical violence, and 59% experienced verbal abuse, during just a seven-day period (Emergency Nurses Association, 2011).

The Joint Commission (TJC) (2018) has established seven actions to combat WPV, which include developing quality improvement initiatives to reduce incidents of workplace violence. One such initiative is the implementation of violence risk assessment to support early identification of one's propensity for violent behavior in an acute care setting. Structured risk assessment has been shown to decrease violence and coercion in an acute psychiatric setting (Abderhalden et al., 2008).

What: The Pediatric Violence/Aggression Assessment Tool (P-VAAT) is designed to identify patients at risk for violence/aggression early in their visit in order to mitigate risk and otherwise intervene appropriately. Completing the tool is simple:

- Fill in the demographic info as asked
- Complete the tool by answering the questions
- Determine the level of risk and intervene as suggested/appropriate

****Please place completed tools in the "Completed P-VAAT Tools" envelope near the Pod B Workstation.**

Who: PED Psych RNs

When: Fall 2019

Why: To advance practice in the PED and support the DNP project of Margo Mancl, MS, RN, CPEN.

Questions?

Thank you!