

Implementation of Aggression Screening in a Child and Adolescent Psychiatry Unit

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Abstract

Problem: Adequate management of patient aggression within psychiatry proves to be difficult. Seclusion and restraints are often used to help manage aggressive patients. The American Psychiatric Nurses Association released a statement endorsing efforts aimed at reducing seclusion and restraint events. This unit has reported an increase in the use of seclusion and restraint events over a one year time period.

Purpose: The purpose of this quality improvement (QI) project is to implement the Dynamic Appraisal of Situational Aggression-Youth Version screening tool in a child and adolescent inpatient psychiatric unit for patients ages eight to seventeen to decrease the use of seclusion and restraints.

Method: This project was implemented over a 15-week period from August-December 2022. The DASA-YV screening tool was integrated into the electronic health record. The multidisciplinary team developed guidelines for interventions for each scoring category of screening. Each registered nurse was trained on the use of DASA-YV and the interventions associated with the level category. Screenings were conducted by the registered nurse within 24 hours of patient admission to the unit.

Results: Baseline data were collected for seclusion and restraint events for 8 weeks pre-implementation. The numbers of seclusion and restraint events ranged from 0-5 over the 8 week period. Week 2 of implementation revealed 13 seclusion and restraint events. After week 2, seclusion and restraint events ranged between 0-5. Psychiatric nurses screened 86% of newly admitted patients throughout implementation. Compared to 2021, seclusion and restraint events decreased by 26%.

Conclusions: Findings indicate that this practice change did not meet process goals for each

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week of implementation. Through provision of feedback and adjustment of strategies and tactics, compliance improved which reflected acceptance by staff. It is anticipated that over time, seclusion and restraint events will continue to decrease. DASA-YV is a validated screening tool that may assist in identifying aggressive patients and reducing seclusion and restraint events in other inpatient child and adolescent units. Early detection may aid in utilizing interventions to eliminate use of seclusion and restraints.

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Implementation of Aggression Screening in a Child and Adolescent Psychiatry Unit

Adequate management of patient aggression within psychiatry proves to be difficult. Interventions set in place are sometimes ineffective, leading to the frequent use of seclusion and restraints. Aggression is defined as any behavior intended to cause harm; intentionally or unintentionally (Vincent-Hoper et al., 2020). Aggression can be categorized as either physical or non-physical. Factors contributing to increased aggression include inadequate staffing, the pathophysiology of illness, and patients with a history of violence (Weltens et al., 2021). The American Psychiatric Nurses Association (APNA) released a statement supporting a reduction in the use of sedation, seclusion, and restraints for the management of aggressive patients and advocating for more research on safe sedation measures (American Psychiatric Nurse Association, 2018). Findings by Chieze et al. (2019) further support the limited use of restraint and seclusion in hospitalized psychiatric patients. In their study, post-traumatic stress, negative emotions, hallucinations, and injury were experienced by patients post-seclusion or restraint events (Chieze et al., 2019). The purpose of this quality improvement (QI) project was to implement Dynamic Appraisal of Situational Aggression-Youth Version (DASA-YV) (Appendix A) screening in a child and adolescent inpatient psychiatric unit and measure the impact on the use of restraint and seclusion. The DASA-YV is an 11-item likert scale used to identify variable risks of aggression. Scores between 0-2 indicate low risk of aggression, 3-5 indicate moderate of aggression, and scores >5 indicate high risk of aggression.

The use of aggression and violence screening tools can identify patients at increased risk for aggressive behaviors early in the patient's hospitalization. Apart from identifying individuals at risk of violence, screening has also been shown to help reduce violence, restraints, and seclusion (Fernandez-Costa et al., 2020). Early detection is critical in the prevention of

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aggressive episodes. Prevention of aggressive episodes is associated with improved patient outcomes (Chieze et al., 2019). Anticipating these episodes decreases the need for chemical sedation, physical restraints, or seclusion. A literature review was conducted, and evidence was synthesized to determine the effectiveness of aggression screening tools in reducing seclusion and restraints (Table 1). The four articles reviewed included two prospective cohort studies and two systematic reviews.

Dutch et al. (2019) performed a prospective study to determine the feasibility and validity of the Dynamic Appraisal of Situational Aggression-Youth Version (DASA-YV) and found that it has reliability and validity in screening for aggression (Dutch et al., 2019). Authors found that each item on the screening tool showed statistical significance in violence reduction when screened at admission ($p < 0.001$). Aggression screening effectively predicted time trends of first episodes of aggression (Lin et al., 2021). Through the identification of these trends, staff members were able to preemptively avert an event from occurring through reliance on strategies outlined in the patient's care plan. Similarly, a systematic review conducted by Calow et al. (2016) found that aggression risk assessment tools were effective in predicting aggression and reducing injury. Fernandez-Costa et al. concluded that early screening is essential to enhance less invasive measures than restraint and seclusion (Fernandez-Costa et al., 2020).

The framework selected for this quality improvement project is the Promoting Action on Research Implementation In Health Services (PARIHS). According to this framework, evidence, context, and facilitation are predictors of successful implementation (Kitson et al., 1998) (see figure 1). The four sublevels of evidence are research, clinical experience, patient experience, and local information (Helfrich et al., 2010). In relation to aggression screening, a literature review was conducted, and evidence was synthesized supporting its use. The sublevels of context

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are leadership, culture, and evaluation (Helfrich et al., 2010). This facility is an academic organization that prides itself on the provision of patient care. There is a clear leadership hierarchy, and the team strives to work together effectively. The sub-levels of facilitation are roles, characteristics, and style (Helfrich et al., 2010). Nursing has high regard for being respectful and empathetic when providing care for patients. They recognize the need for change and are willing to take the necessary steps to make change happen. The sum of these parts equals successful implementation.

Methods

During the identification of the problem phase, several contextual elements were identified. Unit culture, staffing, and environment had the ability to affect the success of implementation. Increased acuity of patients presenting to the unit led to burnout amongst staff. Despite staff burnout, leadership and the team expressed interest in the implementation of aggression screening to aid in identifying patients who were at risk for becoming violent. The unit has reported burnout, resignation of staff, staffing shortages, and increased number of new graduate nurses and travel nurses.

This quality improvement (QI) was implemented over a 15 week period on an inpatient child psychiatric unit. The patients hospitalized on this 14 bed in patient psych unit ranged of a large academic medical center ranged in ages from 8-17 years of age.. Diagnoses treated include mood disorders, depressive disorders, conduct disorders, and psychotic disorders. All newly admitted patients to the unit within this 15 week period were included in this project. Upon admission, the psychiatric registered nurse performed DASA-YV screening. The tool was placed in admission packets and able to be documented within the electronic health record. Permission to use the DASA-YV by the creator was obtained prior to implementation (Appendix B).

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The QI project lead trained staff nurses (n=12) on the use of the DASA-YV. The multidisciplinary team met and identified interventions for each scoring of low, moderate, and high risk of aggression (Appendix C). The multidisciplinary team consisted of psychiatrists, nurse practitioners, nursing, social work, occupational therapy, and security. Change champions were identified to help facilitate implementation. Staff members were trained during weeks 1 and 2 via PowerPoint presentation and discussion (Appendix D). The teach-back method during group discussion was utilized to assess staff member knowledge of the material provided during the education sessions. During weeks 3-10, the QI project leader (a) performed chart audits using an auditing tool in a private area to ensure privacy and confidentiality (Appendix E), (b) continued staff education on screening and interventions, (c) collected metrics on screening compliance and seclusion/restraint events, (d) received feedback to address any potential barriers, and (e) provided feedback through conversations, e-mails, and huddles. Reminders were strategically placed in areas where admissions occur to help ensure screenings were completed. Blank screening tools along with instructions were also placed in admission packets.

Process, outcome, and structure measures were identified to evaluate the project's success. The first structure measure identified for this QI project was the integration of the aggression screening tool into the electronic health record. The second structure measure identified was the education of staff. Education of staff was measured by the total number of staff trained and the total number of staff who should have been trained on aggression screening. Uptake of DASA-YV screening was chosen for the first process measure. Aggression screening success was measured through the calculation of the total number of new admissions to the unit and the actual number of screenings completed within the implementation phase. Outcome measures were restraints and seclusion events calculated by seclusion and restraint events

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weekly. These events were measured by the average rate of events per week during the implementation period.

Data was obtained prior to implementation for comparison. Seclusion and restraint events were tracked within the electronic health record and disseminated to the unit team members weekly. These events are documented in the flowsheets and notes section of the electronic health record detailing the event. Weekly audits were conducted and recorded using a VPN.

Several methods were used to understand the impact of aggression screening. The weekly audits were plotted on run charts to identify trends, shifts, and runs to understand variation over time. During upward trends of seclusion and restraint events, the project lead assessed and gained feedback to determine if any changes needed to be made. During downward trends of aggression screening, the project lead also surveyed and facilitated discussion amongst staff to address decreased screening. Descriptive statistics of low, moderate, and high risk of aggression were also used to help understand the percentage of patients presenting within each category.

A project summary was submitted to an Institutional Review Board and was designated as non-human subjects research. This collection process occurred in a private area to maintain HIPAA practices. The data was recorded within REDCap. Patient identifiers were coded to help ensure confidentiality.

Results

Prior to the implementation of DASA-YV, the child and adolescent inpatient psychiatric unit did not practice aggression screening. Screening compliance fluctuated throughout the implementation phase; not meeting the 100% benchmark each week of implementation (Appendix F). However, adherence to this practice change was positive, with psychiatric nurses screening 86% of newly admitted patients. 100% of conducted screenings were fully complete.

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The total number of patients included in this QI initiative was 65 (n=65). 38.6% of patients scored low risk, 56.1% of patients scored moderate risk, and 5.3% of patients scored high risk of aggression. Of all screenings completed, 100% were completed correctly. The range of screens completed each week was between 1-7. 100% of psychiatric nurses were trained on the utilization of DASA-YV (n=14). The total number of seclusion and restraint events during this QI initiative was 37 (n=37). Compared to the same time period in 2021, seclusion and restraint events decreased by 26%. The median for weekly seclusion and restraint events was 3 (m=3).

During weeks of decreased screening compliance, the project lead facilitated dialogue amongst staff and encouraged staff to share feedback for the improvement of this project. A strategy that was used to help address the downtrends were instructions for completing the tool along with a blank tool being placed in new admission packets (Appendix G). Seclusion and restraint events were collected and revealed 0-5 seclusion and restraint events for weeks preceding implementation (Appendix H). There was an astronomical point at week 2 of implementation with there being 13 events. After week 2, seclusion and restraint events ranged between 0-4. Weeks 9, 13, and 20 of implementation resulted in 0 seclusion and restraint events (Appendix H). The project lead helped staff process the events and reinforced education on the interventions associated with each scoring category. More specifically, the project lead met with nursing staff to cover DASA-YV education and interventions. The project lead ensured staff members were able to utilize this tool through the teach back method. Incentives were provided throughout the project to help increase morale. Weekly tracking and sharing of data ensured staff were aware when benchmarks were not met.

Discussion

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Feedback and discussions with nursing staff reinforce the necessity for aggression screening for the reduction of seclusion and restraints. The goal was to screen 100% of new admissions. This goal was not met. Screening compliance for DASA-YV screenings was 86%. Compliance rates fluctuated throughout the implementation period but had multiple weeks of 100% screening compliance (Appendix F). Weeks reflecting 100% compliance include 3, 5, 7, 8, 11, 12, 13, and 14 (Appendix F). Week 2 reflected 13 seclusion and restraint events and it was revealed that over half of those events were due to difficulty managing a single patient. It was identified that this patient refused to follow redirection and instructions despite all efforts to prevent the use of seclusion and restraints. These 13 events impact the results of this QI initiative as the rest of the weeks reflected between 0-5 events. Despite utilizing identified interventions, efforts to reduce seclusion and restraint for this patient was unsuccessful. With the introduction of DASA-YV screening, seclusion and restraint events varied. While there was difficulty during one week of implementation, overall, seclusion and restraint events remained low. By using matching interventions with each scoring category, nursing staff were able to prevent seclusion and restraint events.

This QI initiative was cost-effective as the DASA-YV was incorporated into the electronic health record. Furthermore, this helped with compliance as it was integrated into the nursing assessment and was able to be quickly completed and documented based on nursing observation. This QI initiative aligns with other literature in supporting the use of aggression screening in reducing seclusion and restraint events (Dutch et al., 2019 & Fernandez-Costa et al., 2020). Through observation and verbal feedback from staff, not all interventions associated with each scoring category were effective in reducing seclusion and restraint events. Factors affecting compliance during implementation staffing and staff reluctance to change. Through

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interviews and discussions with staff, minor adjustments were able to be made to help address compliance, including more reminders placed on the unit, more frequent email reminders and sharing of data, and lastly, strategically placing blank DASA-YV forms in new admission packets.

Conclusion

Seclusion and restraint events are traumatizing for both the patient and staff members involved in the event. Effective identification of patients at risk for aggression is important for safety but also for preventing seclusion and restraint events if patients become agitated and aggressive. Identifying patients at risk for aggression helps give staff a sense of security as they are not unknowingly working with a patient who would score high for aggression. To assist with sustainability, change champions were identified to continue tracking compliance. Findings from this initiative can aid in identifying interventions for reducing seclusion and restraint. The success of this project indicates that this project may be spread to other child and adolescent inpatient psychiatric units. Further QI projects should explore the effectiveness of identified interventions in reducing seclusion and restraints. Future efforts should examine the effectiveness of DASA-YV screening during each shift.

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Table 1: Evidence Review

<p>Lin, P.-I., Bonander, C., Harmeyer, K., Kennedy, P., Sorter, M., Osborn, A., & Barzman, D. (2021). Predicting the time trend of first episodes of aggressive behaviors in pediatric psychiatric inpatient units. <i>Journal of Psychiatric Research</i>, 140, 117–123. https://doi-org.proxy- hs.researchport.umd.edu/10.1016/j.jpsychires.2021.05.058</p>					<p>Level and Quality</p> <p>III-B</p>
Purpose/ Hypothesis	Type of Evidence Research Design	Sample – Population, Size, Setting	Intervention/Procedures	Primary Outcome/Measures	Results/Conclusions
<p>The purpose of this study is to assess if BRACHA scores predict when aggressive behaviors in inpatient psychiatric units might occur.</p>	<p>Prospective cohort study</p>	<p>Sampling Technique: cross sectional</p> <p>Participants and setting: Pediatric patients presenting to emergency department who were admitted to inpatient psychiatry in Midwest USA.</p> <p># eligible: 5,610 patients # accepted: 5,610 patients # in control: n/a # in intervention: 5,610</p> <p>Power analysis: N/a</p> <p>Group Homogeneity: Homogenous based on p values in table displaying demographics.</p>	<p>Control: N/A</p> <p>Intervention Protocol: Administration of Brief Rating of Aggression by Children and Adolescents (BRACHA) upon arrival to hospital</p> <p><u>Intervention fidelity:</u> Social workers were educated on the BRACHA scale and trained on how to administer the 14 item scale.</p>	<p>DV: Irritable and aggressive behaviors. These were defined as verbal aggression, physical aggression against self, physical aggression against objects, and physical aggression against others.</p> <p>DV measure: Aggressive behaviors were assessed by staff utilizing the overt aggression scale (OAS). Nursing rated daily to observe the frequency and severity of aggressive incidents. Reliability of the OAS was not mentioned in the study.</p>	<p>1,761 patients had at least one aggressive incident while 805 patients had at least one high aggressive incident. For these participants, the average time to the event was 3.35 days while the time to the first high aggressive incident was 4.27 days</p> <p>A higher score was associated with a higher incidence aggressive events per day than a lower score ($p < 0.0001$). A higher BRACHA score predicted a lower number of days from admission to the first aggressive incident ($p = 0.0001$).</p> <p>The researchers concluded that the time trend of the first aggressive event can inform staff of potential risks of aggressive behaviors during their treatment course. They also concluded that early assessment of aggression is important as interventions can be set in place to prevent</p>

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					aggressive episodes.
van de Sande, R., Nijman, H. L., Noorthoorn, E. O., Wierdsma, A. I., Hellendoorn, E., van der Staak, C., & Mulder, C. L. (2011). Aggression and seclusion on acute psychiatric wards: Effect of short-term risk assessment. <i>British Journal of Psychiatry</i> , 199(6), 473–478. https://doi.org/10.1192/bjp.bp.111.095141					I-B
The purpose of this study was to assess the effectiveness of risk assessment on aggression and seclusion.	Cluster Randomized control trial	<p>Sampling technique: convenience</p> <p>Participants and setting: Patients admitted to inpatient acute psychiatric units in the Netherlands</p> <p>Eligible: 597 patients between four psychiatric inpatient units Accepted: 597 patients Control: unknown number of participants but 2 of the units served as control Intervention: unknown number of participants but 2 of the units served as intervention</p> <p>Power analysis: N/A</p>	<p>Control Protocol: No use of risk assessment was administered.</p> <p>Intervention: Risk assessment was conducted upon admission and then daily until transfer to another unit or discharge from facility.</p> <p>Fidelity: All doctors and psychiatric nurses were trained to use risk assessments on site after random assignment to each group. Administration of daily assessment took 5 minutes while weekly assessment took 15 minutes. Training and supervision were provided by a CNS who was supported by a risk assessment expert panel.</p>	<p>DV: Aggressive incidents and seclusion</p> <p>DV Measure: Aggressive events were measured using the Staff Observation of Aggression Scale- revised (SOAS-R). Reliability of this scale was not mentioned in this study. Measurement procedure consisted of frequent monitoring of patients and assessing for triggers, aggression type and target, consequences of the situation, and any interventions used by staff to handle situation. Seclusion episodes were measured using the Argus scale. There is fair to good reliability of the Argus scale (Cohen $k=0.64-0.92$). The Argus scale involves a detailed collection and analysis of seclusion rates including incidence and duration.</p>	<p>There was a decrease in aggressive incidents in the intervention group. ($p<0.0001$). There was a statistically significant decrease in the time spent in seclusion after implementation ($p<0.0001$).</p> <p>Conclusions: The authors concluded that risk assessments can be helpful in the reduction of aggressive incidents and seclusion events.</p>
Raveel, A., & Schoenmakers, B. (2019). Interventions to prevent aggression against doctors: a systematic review. <i>BMJ Open</i> , 9(9), e028465.					II-C

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https://doi.org/10.1136/bmjopen-2018-028465					
The purpose of this study was to assess interventions in the prevention of aggression.	Systematic Review	Initial search yielded n=747 studies and through final review, n=44 studies were included in final review of the literature. The various target populations were psychiatric departments, general healthcare, emergency departments, emergency primary care, and general care. Exclusion: case reports and opinion articles	Control: N/A Intervention: violence prevention programs, risk assessments, de-escalation, structured feedback programs, Plan-Do-Check-Act Model. Intervention protocol was not mentioned for each intervention identified in this systematic review. Intervention Fidelity: Researchers used Pubmed, Embase, Turning Research into Practice, Cochrane and Pyscharticle databases.	DV: Rates of violent events, injuries, restraint and seclusion, staff observation aggression scale DV Measure: Measures for each violent events, restraint and seclusion, and staff observation aggression scale	There were significant reductions in severe aggression (p<0.001) There was also a significant reduction in attacks (p<0.001) There was also significant reduction in coercive measures such as restraint and seclusion (p<0.001) The authors concluded that aggression risk assessment tools are effective in reducing seclusion and restraint
Calow, N., Lewis, A., Showen, S., & Hall, N. (2016). Literature synthesis: Patient aggression risk assessment tools in the emergency department. <i>Journal of Emergency Nursing</i> , 42(1), 19–24. https://doi.org/10.1016/j.jen.2015.01.023					III-B
The purpose of this study was to evaluate the use of various risk assessment tools in the emergency department and reduction of future risk of violence	Systematic Review	Initial search results yielded 589 studies (n=589), and final review of literature was narrowed to 13 studies (n=13). Risk assessment tools identified were used in the ER, psychiatry, and med-surg. ED sample size-(N=196) Inpatient sample size-(N=19,372) Exclusion: Studies involving outpatient and extended care facilities.	Control Protocol: N/A Intervention Protocol: N/A Intervention Fidelity: Intervention protocol was not mentioned for each assessment tool from each article in the final review. Three databases used were CINAHL plus, Medline, and PsycINFO. The literature search was conducted to identify aggression risk	DV: Reduction of violence towards staff DV Measure: Measures of violence was not reported for studies included in this systematic review.	Inpatient tools focused more on reducing seclusion and restraint events. 12 out of 13 studies found risk assessment tools being effective at predicting patient aggression and reducing injury. One study found that seclusion decreased after implementation of a screening tool. The authors concluded that use of risk assessment tools help in the identification of aggressive behavior. Use of

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			assessments in the emergency department, inpatient psychiatry, and medical-surgical units.		these tools can result in reduction of violent behavior that require restraints.
<p>Damián Fernández-Costa, Juan Gómez-Salgado, Javier Fagundo-Rivera, Jorge Martín-Pereira, Blanca Prieto-Callejero, & Juan Jesús García-Iglesias. (2020). Alternatives to the Use of Mechanical Restraints in the Management of Agitation or Aggressions of Psychiatric Patients: A Scoping Review. <i>Journal of Clinical Medicine</i>, 9(2791), 2791. https://doi-org.proxy-hs.researchport.umd.edu/10.3390/jcm9092791</p>					III-B
<p>The purpose of this study was to evaluate the effectiveness of alternative measures in reducing or preventing restraint</p>	<p>Review of analytical observational studies, quasi-experimental studies, and systematic reviews.</p>	<p>The population for this review were agitated psychiatric patients. The initial search found 835 studies. 23 studies were eligible and 21 were included in final review.</p> <p>Exclusion: opinion articles, case series, studies with low scientific evidence.</p>	<p>Control Protocol: N/A</p> <p>Intervention Protocol: Intervention protocol for each of the alternate interventions from each study in review not mentioned in the final review.</p> <p>Intervention Fidelity:</p> <p>The researchers used the following databases: Medline, Cochrane Library, CINAHL, Web of Science, PsycINFO, LILACS, and Health Database. The main researchers conducted the search and final studies were reviewed by a third researcher. Various interventions were found in the literature including verbal de-escalation, therapy, risk assessment tools, and inclusion of patients in care.</p>	<p>DV: Use of coercive measures; primarily restraints.</p> <p>DV Measure: Measures for restraint and coercive incidents found in this review were not reported in this review.</p>	<p>Structured risk assessment tools were effective in reducing the risk of violence and restraints in a randomized controlled trial and seclusion in a systematic review.</p> <p>The authors concluded that early detection and screening is important to enhance less invasive measures than restraints and/or seclusion.</p>
<p>Barzman D, Mossman D, Sonnier L, Sorter M. Brief Rating of Aggression by Children and Adolescents (BRACHA): a reliability study. <i>J Am Acad Psychiatry Law</i>. 2012;40(3):374-82. PMID: 22960920. http://jaapl.org/content/jaapl/40/3/374.full.pdf</p>					V-B

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The purpose of this study was to assess the reliability of the BRACHA scoring tool.	Reliability Study	Sample (n=10) psychiatric healthcare workers Power analysis: 10 participants required to view modules to meet 80% beta, .05 alpha. Power analysis met.	Control Protocol: N/A Intervention Protocol: Administration of BRACHA Intervention Fidelity: Workers were trained on the use of BRACHA and scoring measures. Workers watched 24 videos 10 minutes long of children engaging in low, moderate, and high levels of risk of aggression	DV: Inter-rater reliability DV Measure: Inter-reliability was measured using Kendall's coefficient of W, Fleiss' generalized kappa, and Gwet's AC statistic.	There was good to almost perfect inter-reliability of use of BRACHA with Kendall's W exceeding 0.75 for more than half of the 14 items. The authors concluded that BRACHA was an accurate and highly reliable tool for assessing risk of aggression by children and adolescents.
Dutch, S. G., & Patil, N. (2019). Validating a Measurement Tool to Predict Aggressive Behavior in Hospitalized Youth. <i>Journal of the American Psychiatric Nurses Association</i> , 25(5), 396–404. https://doi-org.proxy-hs.researchport.umd.edu/10.1177/1078390318809411					I-B
The purpose of this study was to determine the feasibility and validity of the Dynamic Appraisal of Situational Aggression-Youth Version (DASA-YV)	Reliability Study; Prospective Study	Sample: Child and Adolescent Psychiatric Patients aged 6-18. There were 24 patients included in the reliability phase and 103 patients included in the validity phase	Control Protocol: N/A Intervention Protocol: Administration of Dynamic Appraisal of Situational Aggression-Youth Version Intervention Fidelity: Formal education and training was provided to all nurses involved with the data collection	DV: Aggressive incidents; verbal and physical against others or objects DV measure: Inter-reliability was measured using Cohen's kappa (K)	Results indicate statistical significance among interrater reliability with Kappa of 0.79 with a p-value of <0.001. There were 80 incidents of aggression 24 hours after assessment: 28 physically aggressive episodes against objects, 32 verbal aggression towards others, and 20 episodes of physical aggression against others. Each DASA had statistical significance with p<0.001.

Figure 1: Promoting Action on Research Implementation in Health Services (PARIHS)



AGGRESSION SCREENING

Appendix A: DASA-YV Screening Tool

Dynamic Appraisal of Situation-Youth Version

The following ratings are based on your knowledge and observations of the youth during the PREVIOUS 24 HOURS . Circle 1 (yes) if you have experienced the behavior in the last 24 hours or circle 2 (no) if you have not.	No	Yes
Irritability - Easily annoyed/frustrated, angry, or unable to tolerate the presence of others	0	1
Impulsivity - Displaying behavioral and emotional instability (i.e. ↓ fluctuations or instability in mood)	0	1
Unwillingness to Follow Directions - Becoming angry or aggressive when asked to follow routine or participate in programs (i.e., reluctance to follow staff direction)	0	1
Sensitivity to Perceived Provocation - Seeing others people's actions as deliberate and harmful; may misinterpret other people's behavior or respond with increased anger (i.e., paranoia)	0	1
Easily angered when requests are denied - Intolerant or easily angered when a request is denied or when asked to wait	0	1
Negative Attitudes - Displaying antisocial or negative attitudes which may relate to violence and aggression (i.e. defiant, antagonistic towards staff or peers)	0	1
Verbal Threats - In the last 24 hours has had a verbal outburst, has been verbally intimidating or threatening	0	1
Anxious or fearful - Currently shows signs of significant fear or anxiety	0	1
Low empathy or remorse - Unaffected by or indifferent to the feelings/distress of others. Does not see anything wrong with harming other people (i.e., bullying, disregard for others' feelings)	0	1
Significant peer rejection - Currently isolated as a result of rejection by peers	0	1
Outside Stressors - Stressed because of family, relationships or legal problems (i.e., charges pending, worried about court)	0	1
Total	/11	/11
Final Risk Rating - CIRCLE Based on DASA score, (H) high, (M) medium, (L) low		

Appendix B: DASA-YV Consent

Permission to Use DASA-YV

Report **Damon Bennett**

Jul 2, 2022

Goodmorning,

My name is Damon and I am Doctoral Student at University of Maryland School of Nursing. I am contacting you regarding the DASA-YV screening tool. I read your article and fascinated with the findings. I am completing a Quality Improvement project and am interested in using DASA-YV. Is it possible to use DASA-YV for a quality improvement initiative?

**Philip J Batterham** to you

Jul 11, 2022

Hi Damon,

I don't see any problem in using the DASA-YV for a quality improvement initiative.

Appendix C: DASA-YV Interventions

11W DASA-YV Scoring Interventions

Interventions	
Low (0-2)	Monitor and engage with patient (being present, observing, watching tv) Allow for patient to verbally vent Use a neutral approach (calm and relaxed voice) *De-escalation techniques
Moderate (2-5)	Allow for the patient to utilize their own management techniques (deep breathing, relaxation) Reminder of unit rules, behaviors, and expectations Allow for the patient to verbally vent Offer the use of the sensory room Offer for the use of lego area Relaxation exercises Setting boundaries and limits Offer distractions such as reading, listening to music, playing cards *De-escalation techniques
High (6-11)	1:1 sitter Offer PRN medication *De-escalation techniques Clear area for safety Zoning Offer use of ante room

*de-escalation techniques: active listening, refocusing on something positive, empathizing, giving choices, being aware of body language

Note: These are interventions discussed by multidisciplinary team. Nursing judgment and patient assessment should be used to decide what is appropriate for a particular patient during an event.

Appendix D: Staff Education Outline

Objectives	Content Outline	Method of Instruction	Time	Method of Evaluation
<p>By the end of the session, the learner will be able to:</p> <ol style="list-style-type: none"> 1. Identify signs of aggression 2. Discuss Maslow's Hierarchy of Needs 3. Develop awareness of DASA-YV screening 4. Accurately complete DASA-YV screening 	<ul style="list-style-type: none"> • Maslow's Hierarchy of Needs • Aggression • DASA-YV screening 	<p>Presentation</p>	<p>30 minutes</p>	<p>Group Discussion</p>

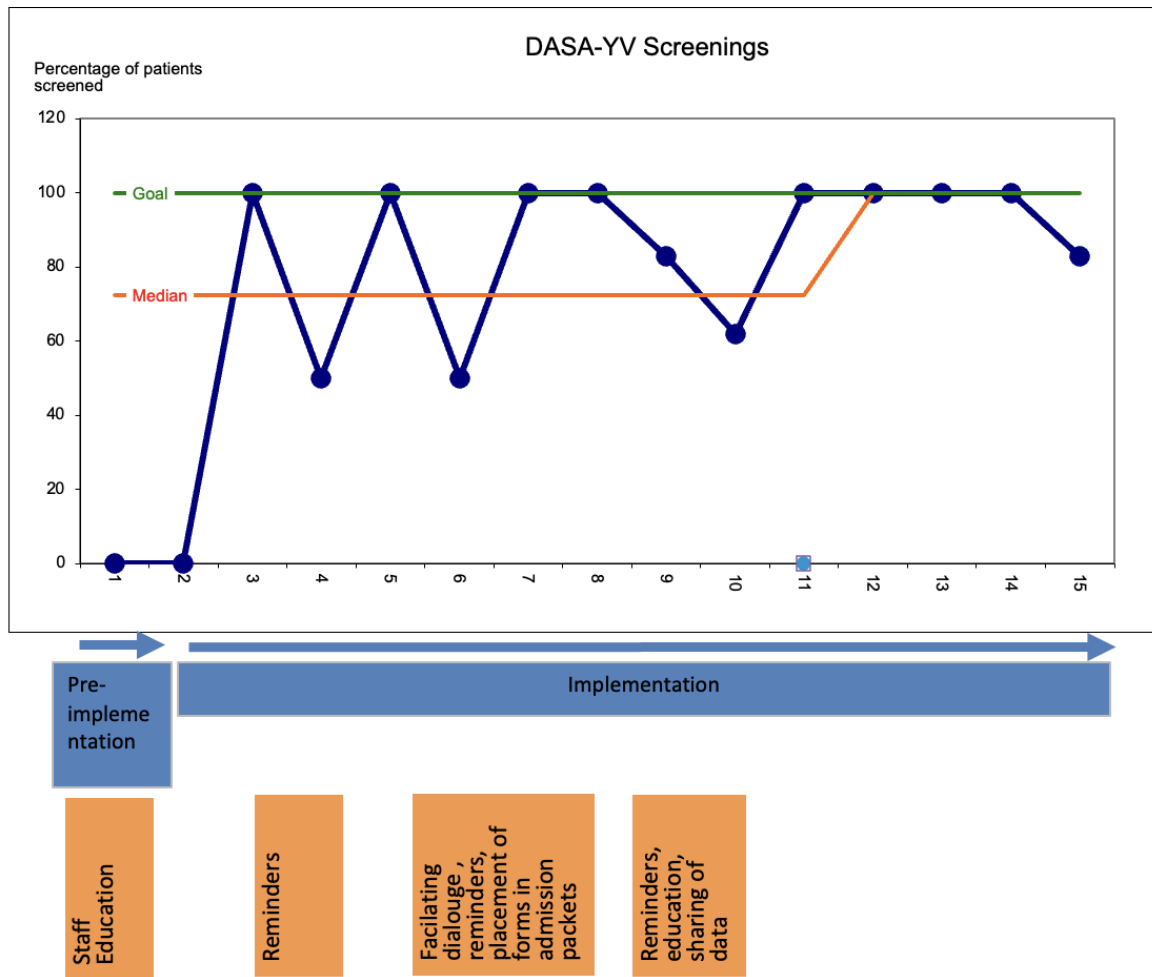
Appendix E: Data Collection Tool

Implementation of Aggression Screening to Reduce Seclusion/Restraints in Child and Adolescent Psychiatry
Page 1

Data Collection Sheet

Record ID	
Screening Tool Number	
MRN	
Admission Date	
Date Screening Tool Completed	
Score	<input type="radio"/> Low <input type="radio"/> Moderate <input type="radio"/> High
Seclusion/Restraint Event	<input type="radio"/> Yes <input type="radio"/> No
Reason for Seclusion/Event	
Irritability	<input type="radio"/> Yes <input type="radio"/> No
Impulsivity	<input type="radio"/> Yes <input type="radio"/> No
Unwillingness to follow direction	<input type="radio"/> Yes <input type="radio"/> No
Sensitivity to Perceived Provocation	<input type="radio"/> Yes <input type="radio"/> No
Easily angered	<input type="radio"/> Yes <input type="radio"/> No
Negative attitudes	<input type="radio"/> Yes <input type="radio"/> No
Verbal threats	<input type="radio"/> Yes <input type="radio"/> No
Anxious/fearful	<input type="radio"/> Yes <input type="radio"/> No
Low empathy or remorse	<input type="radio"/> Yes <input type="radio"/> No

Appendix F: Screening Compliance Run Chart

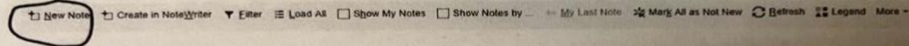


Appendix G: DASA-YV Documentation Instructions

DASA-YV Screening Instructions

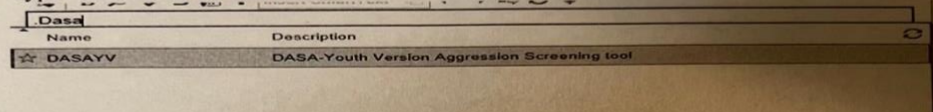
Listed below are the step by step instructions for completing the DASA-YV screening tool. The tool should be completed within 24 hours of admission. Thanks!

1. Create a new note in patient's chart



2. Insert dotphrase

- a. Type ".DASA" in the note section



3. Double Click on smartphrase
4. Complete each item answering yes/no
5. Tally score and identify risk level

The following ratings are based on your knowledge and observations of the youth during the PREVIOUS 24 HOURS. Select YES if patient has experienced the behavior in the last 24 hours or NO if you have not.

Irritability:

Impulsivity:

Unwillingness to follow directions:

Sensitivity to Perceived Provocation:

Easily angered when requests denied:

Negative attitudes:

Verbal threats:

Anxious/fearful:

Low empathy or remorse:

Significant peer rejection:

Outside stressors:

Total score:

Risk level:

Low: 0-2
 Moderate: 3-5
 High: 6-11

6. Sign Note

Appendix H: Seclusion and Restraint Run Chart

