DASA Research Study
Inpatient Mental Health Services
SSM Health
St Mary’s Hospital-Madison

Angela Staas, BSN, RN-BC
Christina Mignon, MSN, RN
Sarah Donnell, MSN, RN, FNP-BC, PCCN
Improvement needed

- Closure of Mendota CSTU in April 2014
- Burden placed on local hospitals to manage patients
- 20% of patients engage in verbal or physical aggression
- Rate of restraint and seclusion tripled in the first half 2015
- Nurses were relying on clinical judgment alone to predict aggression
Multidisciplinary Approach

- Multidisciplinary team of MDs, Security, Social Workers, Occupational Therapy, Registered Nurses and Leadership formed
- The team reviewed the various tools
- The team unanimously chose the Dynamic Appraisal of Situational Aggression (DASA) tool.
Why DASA?

- The tool can be completed in a few minutes
- Evidence suggests that structured risk assessment tools are more reliable in predicting aggression than clinical judgment
- The tool has been validated more than other tools and has been proven more reliable than other tools. 70-76% predictive of verbal aggression and 65-82% predictive of physical aggression.
- Will improve identification and management of aggressive patients
DASA Tool

- Assesses 7 dynamic risk factors exhibited in the last 24 hours
  - Irritability
  - Impulsivity
  - Unwillingness to follow directions
  - Sensitivity to perceived provocation
  - Easily anger when request are denied
  - Negative attitudes
  - Verbal threats

- Patients receive a score of 0 or 1 for each item

- Total scores of 0-1 = low risk (no remedial action required), 2-3 = moderate risk (increase monitoring, alert staff of possibility of aggression), 4-7 = high risk (remediation required to prevent subsequent aggression).

- Predicts aggression in the following 24 hours

- Well-known patients are scored a 1 for an increase in the behavior described, the patient's usual behavior while being non-violent is scored as 0.
First study of its kind in the United States.

Purpose: To improve patient and staff safety by identifying a tool that assists in determining risk of aggression allowing for proactive and early intervention.

Research Question: Is the DASA tool more predictive of aggression in the adult inpatient Behavioral Health population than clinical judgment?
Education on DASA tool provided to nursing staff.

Nurses assessed patient’s risk for aggression daily using the tool September 1-30th, 2015.

Scores were documented on the paper DASA tool and were compared with the incidence of aggression via chart audit

Retrospective audit of charts in the months of June and July of 2015 were reviewed for patients identified as high risk for aggression using clinical judgment and the incidence of aggression.

Aggression was defined as physical aggression against objects, verbal aggression against people and physical aggression against other people.

Incidence of aggression predicted via the DASA tool and clinical judgment were compared.

Data was analyzed using a Receiver Operating Characteristic (ROC) curve (a test used to evaluate diagnostic accuracy).
Participants were Inpatient Behavioral Health nurses at SSM Health St Mary’s Hospital - Madison.

The study compared assessments using the DASA tool with assessments using clinical judgment.
Findings

Diagonal segments are produced by ties.
Findings continued

- Patients identified as high risk for aggression using clinical judgment alone exhibited aggression 6.4% of the time.

- Of the patients assessed using the DASA tool, 2.1% of low risk patients exhibited aggression, 67% of moderate risk patients exhibited aggression and 80% of high risk patients exhibited aggression.

- The DASA tool is a good to excellent tool for predicting aggression in the following 24 hours.
Interventions

- Patients scoring on the DASA tool discussed in daily rounds
- Proactively have medications available
- Implement additional safety measures—more frequent monitoring, room close to nurses station or utilize QR, inform security of patient with a high score
- Collaboration with Occupational Therapy
- Sensory assessment tool
- Sensory modulation therapy/comfort room
Results

HBIPS 2a - Physical Restraint - Overall Rate Per 1000 hours

- Physical Restraint overall - SMH rate
- Average Project Wide Rate
- SSM Best Practice
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GOOD
DASA Study to Inform Future Projects

- Stratification of “Aggression Precautions”

- Individualized treatment plans using best practice and alternative treatment modalities, (sensory modulation, exercise, comfort room).

- Build the DASA tool into EPIC to trigger “Best Practice Alerts,” care plans and order sets.

- Validation study in general/medical population
References


References
