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Implementation of Violence Risk Assessment Tool on In-patient Psychiatric Unit

Manuel Alvano
University of San Francisco, malvanorn@aol.com

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University of San Francisco

School of Nursing and Health Professions

Clinical Leadership Theme

The clinical leadership theme for this project is the integration of nursing science into the delivery of advanced nursing care and increased safety with a specific population and microsystem. The global aim is to improve patient and staff safety through the initial assessment of all admissions in the adult psychiatric unit at this academic university medical center for patients that may have a potential for violent behavior. The process begins with choosing an

evidenced based valid and reliable Violence Risk Assessment (VRA) tool. The process ends with implementation of the Dynamic Appraisal of Situational Aggression (DASA) VRA tool for all admissions and follow up assessments on every shift. By working on the process, we expect to (1) decrease assaults directed towards staff/nurses, (2) decrease the number of missed days of work because of injuries related to assaults, (3) decrease the number of disability cases, and (4) improve staff satisfaction and morale. It is important to work on this now because we have identified the need to improve (1) patient safety, (2) staff safety, (3) staff satisfaction, (4) violence risk assessment of patients.

Statement of the Problem

Psychiatric emergencies warrant immediate and effective interventions in order to prevent sentinel events. These emergencies include suicide attempts, self-injurious behaviors, uncontrolled mania, intoxication states, agitation and assaultive behaviors. The National Institute of Occupational Safety and Health (NIOSH, 2011) reports an average of 69,500 assaults against nurses annually. In order to prevent injuries to healthcare workers and patients, violence risk assessments at triage and admission is crucial. According to the Crisis Prevention Institute (CPI, 2012) early identification of violence potential promotes interventions that can prevent patient violence. Inadequate or incomplete assessments can result in unidentified risk factors for violence resulting in injury to clinical staff and patients. The evidence from the literature synthesis supports the use of standardized violence risk assessment (VRA) tools to help identify potential for aggressive behavior to decrease assaults (Carlow, Lewis, Showen, & Hall (2015). Based on a needs assessment and microsystem evaluation and mesosystem investigation, a VRA is not currently being used on this adult unit. The specific aim of the CNL project is to decrease assaults with and without injuries on 4N below NDNQI through the use a Violence Risk

Assessment (VRA) tool ultimately leading to patient and staff safety. The CNL can facilitate the process of identifying a valid and reliable VRA, educate the staff regarding use of the tool, and lead implementation of the VRA. As an outcomes manager, the CNL can measure the effectiveness of the tool and the desired outcome of decreased assault rates below NDNQI, as well as decreased injuries to staff and patients. With successful outcomes, the VRA will be used in the entire mesosystem.

Project Overview

The project involves selecting an evidenced based actuarial VRA tool to be used for adult psychiatric admissions and every shift assessment. This includes involving direct care nurses in selecting the tool. Upon completion of piloting three VRA tools, the DASA was chosen based on reliability and validity in risk assessment, ease of use, and acceptability. Project implementation requires utilization of the electronic health record and flagging the necessary interventions for at risk patients such as assault precautions, increasing the level of observation, one to one nursing care if needed, availability of emergent medications, and the use of verbal and sensory interventions. Specific objectives include decreasing patient assaults by 25% after six months of implementation, decreasing staff injuries by 50%, and improving nurse satisfaction above 3.5 of 5. The specific aim of the CNL project is to decrease assaults with and without injuries on the adult unit below NDNQI through the use a Violence Risk Assessment (VRA) tool ultimately leading to patient and staff safety. The CNL can educate the staff regarding use of the tool and lead implementation of the VRA. As an outcomes manager, the CNL can measure the effectiveness of the tool and the desired outcomes. On this twenty-five bed mental health unit, assaults are above NDNQI statistics. During the fourth quarter of 2015, assaults were 2.92 per 1,000 patient days, NDNQI 2.05. Assaults with injury were 2.43, NDNQI 0.75 (PI Plan, 2015).

The goal is to utilize the use of a the DASA VRA tool in order to decrease the number of assaults ultimately leading to patient and staff safety.

Rationale

Data was analyzed to determine the need for this project. As discussed, assaults on the unit fell above NDNQI statistics. Root cause and incident reports were reviewed to shed light on specific needs. Findings included inadequate nursing assessments regarding violence risk factors, risk factor data spread throughout the nursing assessment, lack of communication regarding risk factors, not flagging assaultive patients, admissions to the wrong unit or pod, and absence of VRA policy. A SWOT analysis showed strengths as: shared governance, evidenced based practice is valued, data supports need for project, nurses with excellent clinical skills, support of leadership, and electronic health record in place. Weaknesses include: lack of structured assessment tool, too many assault incidents and injuries have occurred, change process can be slow because of approvals process, and lack of existing policy. Opportunities for the project are: Implementation of VRA for all admissions and every shift, VRA can be built into E.H.R., ability to have desired outcomes to decrease assaults and injuries, and improved nurse/staff safety and satisfaction. Threats include: approval from authors to use tool (Broset Violence Checklist) if chosen, cost of use of tool, and delays in implementation possibly from E.H.R. build.

Quality improvement projects can be costly, however, these projects can also create incredible savings for a microsystem and mesosystem. The implementation of a Violence Risk Assessment (VRA) tool has involved a number of meetings: (1) presentation to Evidenced Based Practice Committee, (2) Nursing Quality Steering Committee, and (3) Medical faculty. Future meetings will include: (1) Innovation and Informatics Committee, (2) Professional Practice Committee and final approval in (3) Nursing Quality Steering Committee.

Approximate cost for meetings equals $4,600. Piloting the project came at a cost of $7,560. This was calculated by 15 minutes per RN in completion of the VRA tool for twenty four patients for twenty one days. Additional costs will include optimization of the E.H.R. to include the VRA through EPIC. Potential cost savings as a result of decreased assaults towards nurses and decreased missed days of work compared to the cost to replace nurses on physical disability is more difficult to calculate. Consequences include more than 150,000 nursing and physician workdays lost per year in the US. Financial costs are estimated to be $100 Million year (Hankin, Norris, & Bronstone, 2010). This is based on missed days of work by RNs and Physicians who are assaulted. These numbers only include ER nurses and doctors, not mental health nurse and psychiatrists. This cost could easily be doubled. Currently on this unit, three nurses have been out on medical leave as a result of being assaulted, two requiring surgery (back, shoulder). Replacing these three RNs has cost $187,200 year to date, and two are currently out on leave. This is not including the cost of medical care. These costs support the need for the VRA and the desired outcome to decrease assaults towards staff (Appendix 4). Additional costs involve care provided for patients on the unit that require intervention if they witness the assault as well as the hours of care for the aggressive patient. Success of the project includes support from stakeholders such as medical staff, nursing leadership, direct care nurses, patients/families, E.H.R. department, Performance Improvement department and the magnet committee. Strategies to gain support from stakes holders are listed in the appendix (Appendix 5).

Methodology

Implementing a Violence Risk Assessment (VRA) tool upon admission and every shift on an in-patient psychiatric unit required a test of change. Three valid, reliable and evidenced based practice VRA tools (1) Broset Violence Checklist (BVC), (2) Dynamic Appraisal of Situational

Aggression (DASA), (3) Modified Overt Aggression Scale (MOAS) were each piloted for two weeks (on paper). A survey was sent to all RNs to determine which tool they felt was user friendly and appropriate for the patient population. The DASA was the tool chosen to be implemented in the electronic health record based on survey results. Effectiveness of the project will be determined on measurement of patient assaults towards others. By increasing the accuracy identification of patients with assault potential, appropriate interventions can be implemented. This includes assault precautions, level and frequency of observation including one to one status if necessary, amount of exposure to other patients, warning label in the E.H.R. and location of the patient's bedroom on the unit. As mentioned, currently, assaults on the unit are 2.92 per 1,000 patient days, NDNQI 2.05. Assaults with injury on the unit are 2.43, NDNQI 0.75 (PI Plan, 2015). After implementation of the DASA VRA, assaults with and without injury will decrease by 25%. The ultimate goal is to maintain assaults below NDNQI statistics as this is the measure used nationally on psychiatric units. Monthly and quarterly measures will be compared and graphed as part of the performance improvement plan.

Since research has provided evidence that the use of actuarial tools provide the highest rate of predictive validity compared to non-structured assessments, the VRA will produce valid predictions of aggressive behavior. (Singh, Grann, & Fazel (2011). Ongoing monthly measurement and evaluation of interventions is critical in meeting the desired outcomes.

Everett Roger's theory of critical dynamic of innovation diffusion applies to the project. *Triability* (Cain & Mittman, 2006). *Triability* was utilized in the process for choosing a Violence Risk Assessment tool as evidenced by the test of change. Each of the three tools was piloted for two weeks for each new admission assessment and every shift assessment on the in-patient adult mental health unit. After each tool was piloted, a survey monkey was sent out to all of RNs to

rate each tool. This allowed staff to engage in innovation without total commitment leading to the chosen tool: DASA.

Kotter's eight step process was also applied. The first stage, *Create sense of urgency,* required minimal effort as nurses were well aware of assault episodes, one resulting in a nurse's tibia fracture and a second nurse who required shoulder surgery. Coalition was readily built as clinical nurses and leaders volunteered to participate in the project. Initiatives were formed and a working committee took charge. Minimal barriers prevented the start of the project. A current obstacle is the timeframe for the E.H.R. build. Short term success has been accomplished by completing the pilot process and choosing a tool.

Acknowledging all clinical nurses and committee members, informatics, and leadership will be important when the project is fully implemented. The micro and mesosystem will celebrate the accomplishment. Poster and podium presentation will occur in psychiatric nursing conferences. Outcomes data will be compared to NDNQI on a monthly and quarterly basis. The mesosystem has received awards in 2014 and 2015 for quality measures and outcomes and is currently ranked number seven in the United States for best psychiatric hospitals (US and World News, 2016). The system will continue to celebrate its accomplishments. Assaults will need to show continued rates lower than NDNQI. It is predicted that milestones and data will show success in meeting these outcome measures. Sustainability will be an important factor demonstrated by use of the VRA tool on at least 95% of all admissions and shift assessment.

Literature Review

A literature review was performed to determine the effectiveness of violence risk assessment tools in identifying patients with potential for violent behavior in acute care settings. The PICO search strategy was utilize for *violence, risk assessments*, and *acute care*. Several

articles were found ranging from 2008 to 2015 and were selected for review. These evidenced based articles will be discussed in support of the goal to decrease patient assaults towards staff on mental health unit.

Singh, Grann, and Fazel (2011) performed a systematic review and metaregression analysis of 68 studies involving 25,980 participants comparing violence risk assessment tools. They aimed to determine what tools have the highest predictive validity. They evaluated nine tools using the Preferred Reporting Items for Systematic Reviews and Meta-analysis (PRISMA), a 27 item checklist of review characteristics to allow a transparent and consistent reporting of results. They also wanted to compare structured clinical judgement (SCJ) tools which utilize evidence based risk factors to guide predictions of an individual's risk of violence with actuarial tools. Actuarial risk assessment tools estimate the possibility of violence by attributing numbers to risk factors. These numbers are then combined using an algorithm to calculate a total score that match to a rating such as high risk, moderate risk, or low risk. While past reviews have provided evidence that the use of actuarial tools provide the highest rate of predictive validity compared to SCJ, other findings show that SCJ produce equally valid predictions (Singh, Grann, & Fazel (2011). Supporters of SCJ tools also state that clinical information found utilizing SCJ can be used for implementing a plan of care.

The authors found that the Structured Assessment Violence Risk in Youth (SAVRY), an instrument designed to assess the risk of violence in adolescents produced the highest rate of predictive validity for adolescents than tools designed for the general population. The Violence Risk Appraisal Guide (VRAG) scored highest for the adult population. The Level of Service – Revised (LSI-R) and Psychopathy Checklist – Revised (PCL-R) produced the lowest rates of predictive validity. The tools were more predictive with women, Caucasians, and the specific

population for which the tools were designed. The study found that actuarial tools did not produce better levels of predictive validity than SCJ tools. This finding suggests that clinicians and researchers should focus on identifying which tool, actuarial or SCJ, produce the highest rate of predictive validity for their setting and population.

Calow, Lewis, Showen, and Hall (2015) assert that the use of an aggression risk assessment tool can reduce the future risk of violence towards health care workers. Their article, "Literature Synthesis: Patient Aggression Risk Assessment Tools in the Emergency Department" was published in the *Journal of Emergency Nursing.* An initial search using CINAHL, Medline, and PsyINFO of peer reviewed journals form January 2009 through September 2014 was performed. Of 589 articles, 13 met criteria for full review. The literature showed that violence risk assessment tools have been implemented in various health care settings. Nine different tools emerged from the literature, three in emergency departments, 4 in psychiatric settings, and two in medical-surgical units. The STAMP violence assessment tool and framework and the Broset Violence Checklist (BVC) were the most prevalent instruments used based on findings. The STAMP assessment tool was developed specifically for ED nursing practice to identify and prevent violent behavior while the BVC focused on decreasing seclusion and restraint episodes on in-patient units. The evidence from the literature synthesis supports the use of standardized violence risk assessment tools to help identify potential for aggressive behavior.

Sands, Elsom, Gerdtz, and Khaw (2012) assert that use of standardized violence risk assessments with algorithms are impractical in acute time-pressured environments such as emergency departments particularly during a crisis. They performed a systematic international review to determine the best evidence for violence risk assessment and the clinical factors which best predict violence in acute healthcare settings. 49 studies were reviewed by a team of six

researchers. The results of each study were assessed for level and quality of evidence and statistical precision. An assessment matrix outlined by the National Health and Medical Research Council (NHMRC) of Australia was utilized with grade *A* being the strongest evidence and grade *D* the weakest. Sands et al (2012) stated that the violence risk factors with the highest evidence included hostility/anger, agitation, thought disturbance, positive symptoms (hallucinations and delusions) of schizophrenia, suspiciousness and irritability. The authors emphasized the importance of identifying these observable dynamic/clinical factors which include appearance, behavior, speech and thinking rather than diagnostic or historical findings. They added that substance abuse, history of violence, age and gender were grade *C* factors. Sands et al (2012) recommend that clinicians working in emergency departments and psychiatric triage teams need to be trained to detect risk factors for violence that are evidence based so that interventions are implemented to prevent episode of violence.

Woods (2012) addressed risk assessment and management approaches on mental health units. Staff from eight units participated in the study. Data was collected using focus groups. Participants (n=48) included Registered Nurses (n=35), Licensed Practical Nurse (n=2), Nurse's Aide (n=7), Social Worker (n=2), Student Nurse (n=2), and other (n=2). A total of nine focus groups lasted 45 to 90 minutes. Nine specific questions were developed for the study:

1. *How are clients assessed for risk?*
2. *How is the risk assessment documented and communicated?*
3. *Are you able to communicate ideas, opinions and concerns regarding risk assessment and management to nursing management?*
4. *How are identified risks managed?*
5. *Are risks regularly reassessed?*
6. *What training have you had to prepare to undertake risk assessment and management responsibilities?*
7. *How do you handle specific diversity issues?*
8. *What is the experience of patients in the risk assessment and management process?*
9. *What would you change in relation to risk assessment and management to make it a more*

useful process? (Woods, 2012)

Risk, Risk Assessment, and Risk Management were defined for the participants so that subjects would be working from the same understanding of these topics. Results indicated that the use of clinical judgment was common to all participants and units. More experienced staff expressed concern regarding the disparity between their skills and the less experienced staff. Many participants raised concerns regarding inconsistencies and deficiencies in the risk assessment process. Risk assessment tools were not being used consistently on the units. All participants stated they would use a tool if it was available and user friendly (Woods, 2012). Participants also expressed concern regarding legal liability in the absence of a risk assessment instrument. Participants from one unit noted that they were not properly trained to use risk assessment tools. Woods (2012) concluded that professional consistency, education, and training were important factors for effective risk assessment. Additionally, reliance on clinical judgment alone is not best practice in identifying and preventing patient violence. Research consistently shows that risk assessment tools can aid clinical judgment.

Rizzo and Smith (2012) identified the importance of understanding deficiencies in clinical risk assessment and management for violence in clinical practice in order to improve services and outcomes for patients. The aim of their study was to assess the prevalence of risk assessments among general psychiatric patient and to determine which risk factors were likely to trigger a structured assessment. It is important to note that the hospital used an electronic health record (EHR) system for documenting assessments and progress notes. All patients on the general psychiatric wards (n=325) were approached to participate in the study at an inner city mental health hospital in the UK. Inclusion criteria included being a legal resident, able to communicate in English, and a principal diagnosis of schizophrenia, schizoaffective disorder,

bipolar disorder, major depression or alcohol or drug induced psychosis. 49 did not meet criteria and 50 declined to participate leaving a sample size of 205. 49.2% of the men and 38.8% of the women in this study had engaged in assaultive behavior in the previous six months. 56.7% of the men and 48.2% of the women were victims of aggressive behavior. Patients consented to be interviewed and authorized review of their EHR. Results from an initial assessment of eight risk factors for potential for violence towards self and others triggered a more structured assessment in the EHR. It was determined whether the brief risk assessment and structured risk assessments were complete, incomplete or absent. The data was analyzed and an alpha level of .05 was used for all statistical tests. Rizzo and Smith (2012) found that the 44.1% of patients were assessed using the brief assessment tool and only 23.3% were complete. Of the 63.4% that required a structured assessment, 95.3% were completed. The factors that were most likely to trigger a structured assessment were *Current problem with alcohol, an expression for concern for others, and significant past history of violence.* The authors concluded that the majority of patients were not being screened for violence risk and those who were screened often had incomplete assessments. This gap in performance puts nurses and other at risk for injury.

Based on the literature review, the evidence demonstrates that the use of violence risk assessment tools are effective in identifying patients that are most at risk of re-offending. Singh, Grann, and Fazel (2011) found the SAVRY and VRAG to have the highest predictive validity while Carlow et al (2015) found that use of the STAMP risk assessment tool to be most effective. Evidence also shows that actuarial tools did not produce better levels of predictive validity than Structured Clinical Judgment (SCJ) tools (Singh, Grann, & Fazel, 2011). Sands, Elsom, Gerdtz, and Khaw (2012) assert that use of standardized actuarial violence risk assessments are impractical in acute time pressured environments and recommend the use of evidenced based

indicators in that clinically dynamic and observable. They recommend that clinicians working in emergency departments and psychiatric triage teams receive extensive training to detect risk factors for violence so that preventative measures can be implemented. Chu, Daffern and Ogloff (2013) showed that the DASA and BVC were acceptable to outstanding predictive validity and were more accurate than the HCR-20. The Modified Overt Aggression Scale (MOAS**)** is a four part behavior rating scale designed to measure four types of aggressive behavior and has also shown to be a valid tool (Chukwujekwu & Stanley, 2008).

From the research, it can be concluded that the use of an assessment tool that has strong predictive validity whether actuarial or SCJ along with knowledge of risk factors can improve clinical practice and prevent violent episodes. Identifying risk factors upon initial assessment promotes best practice which is critical in reducing adverse outcomes associated with violence such as patient and staff injuries, increased episodes of seclusion and restraints, involuntary detainment, loner length of stay, property damage, and the exorbitant cost associated with sick leave and disability (Sands et al., 2011). The microsystem can learn from these evidence based articles in improving practice, particularly in and mental health unit where patient violence is most prevalent (PI, 2015).

Woods' (2012) qualitative research emphasizes the importance of training, education, and consistency in risk assessments. Participants also stated that utilizing a risk assessment tool would enhance their practice and decrease concerns regarding litigation. Rizzo and Smith (2012) identified the importance of understanding deficiencies in clinical risk assessment and management for violence. By performing a review of the EHR of 205 patients, they found that the majority of risk assessments were not complete. This gap in risk assessment puts nurses at greater risk of being assaulted and injured. Reasons for incomplete assessments or lack of an

assessment were not discussed in the study. Various factors such as staffing levels, lack of training, and poor patient adherence are possible causes. Wood (2012) noted that experience and knowledge created disparity in nurse performance. These issues are important since communication amongst nurses, physicians, and other clinical staff is critical in preventing an assault crisis. The EHR at the medical center is a powerful tool for implementing and communicating risk assessment findings. Currently the Braden assessment tool is being used for skin risk and Schmid for fall risk (Care Connect, 2014). The use of these tools promotes support for the use of a violence risk assessment tool such as the MAOS, DASA, BVC, or STAMP. Olgoff and Daffern (2006) showed how the DASA's seven test items demonstrated maximum effectiveness in identifying acute psychiatric patients at risk for engaging in inpatient violence within 24 hours. Clinical staff can apply the DASA in the microsystem to better identify and manage of inpatient aggression with 95% compliance to decrease patient assaults towards staff by 25 % in a six month period.

Timeline

Implementing the VRA tool requires a succinct timeline while acknowledging that barriers may alter initials goals. The initial process required a literature review to identify valid and reliable VRA tools (March, 2016). The time frame able is the appendix lists the specific dates (Appendix 10). Once chosen, the nurses required training regarding use of each tool for the pilot project. They were each piloted for two weeks with one week lag time between each tool. This allowed time for additional training April-June, 2016). A survey was sent to all registered nurses via survey monkey after the test of change. The survey was completed on June 26, 2016. This allowed nurses three weeks to participate in the survey. Survey results were calculated by the performance improvement analyst and the DASA was the chosen VRA tool. Next steps

include incorporating the DASA into the E.H.R. The initial target date was August 8, 2016, but will most likely be September 1, 2016. This will allow measurement of the final quarter of 2016. Monthly and quarterly metrics will be analyzed and compared to NDNQI. Staff compliance will completion of the tool will also be audited. Utilizing the PDSA process, adjustments to the tool, interventions and treatment plans may also be necessary.

Expected Results

The project is expected to decrease the number of assaults and injuries on the psychiatric unit. With increased communication among the care team, awareness of violence potential can result in decreased assaults. Evidence has demonstrated that use of the DASA can decrease assault incidents. OSAH (2015) published a road map for decreasing workplace violence. They highlighted St. Cloud Hospital in Minnesota and their process for implementing a VRA tool in their HER which triggered placing patients on assault precautions and other necessary interventions including limiting furniture in the patient's room that can be used as weapons. St. Cloud's risk assessment tool is now a a model used in the Minnesota Department of Health (OSHA, 2015).

The expectation of the VRA project will result in decreased assaults and injuries in the microsystem. Proven effectiveness may result in use of the VRA tool in the mesosystem which includes three psychiatric units and may also be used in the emergency department and other areas in the health system that identifies violence as a safety issue. Spread theory supports the use of effective tools in one area into other areas and microsystems. The larger scale goal is to decrease the number of assaults and violence in US hospitals. VRA tools may become a standard of practice to decrease the 70,000 to 100,000 assaults against nursing staff per year and to decrease the 13.2 per nurses (CDC, 2010).

Nursing Relevance

This VRA project supports the premise of the Nursing Process in that appropriate and accurate assessment results in treatment plans and interventions to meet desired outcomes. If potential assessed upon admission in the acute care setting, the problem will not be identified resulting in undesired symptoms such as agitation and violence against others. While patients may enter the healthcare system for a specific complaint not related to violence potential, risk factors such as substance abuse, history of violence, agitation, and mental illness need to be identified. Nurses enter the profession to provide care and healing to their patients often times unaware violence potential in their patients sometimes after they have already become ictim to assault from the patient in their care. The use of a VRA tool can prevent these incidents. Nurses have the highest prevalence of assaults of all health care professions. Preventing assault and injury to nurses is critical.

Summary Report

The aim of this CNL project is to decrease patient assaults towards staff by twenty-five percent in six months after implementation of a Violence Risk Assessment (VRA) tool. The ultimate goal is to maintain assault rates with and without injury below NDNQI. Assaults on the unit for the fourth quarter of 2015 were 2.92, NDNQI 2.05. Assaults with injury were 2.43, NDNQI 0.75. The microsystem is a twenty five bed locked acute psychiatric unit in a large academic university health system. Patients range from age eighteen to elderly adults with diagnosis such as Major Depressive Disorder, Bipolar Disorder, Schizoaffective Disorder, Schizophrenia, and Dementia. Patients may have comorbid chronic medical conditions and substance use disorders. A literature review was performed to ascertain valid and reliable tools in predicting assaultive behavior which

resulted in three VRA tools with high predictive value: the Broset Violence Checklist (BVC), Dynamic Appraisal of Situational Aggression (DASA), and Modified Overt Aggression Scale (MOAS). Each tool was piloted on the unit for two weeks followed by a staff survey regarding their choice of tool based on risk assessment, ease of use, and acceptability. The DASA (Appendix 6) was chosen by the staff and approved by the Nursing Steering Committee. Barriers to the timeline in implementing the tool such as a Department of Health survey and other priorities with the EHR build team prevented implementation. A new target date for implementation into the EHR has been set for September 1, 2016. This will allow for evaluation of the tool after the last quarter of 2016. The six month evaluation date will be at the end of the first quarter of 2017. It is project that assaults will decrease by twenty-five percent after six months after implementation of the DASA. In the event that his goal is not met, factors such as staff compliance with completing the DASA and implementing evidenced based practice interventions with potentially violent patients will be studied and addressed. Sustainability will include continued training with staff regarding violence in the workplace, management of assaultive behavior certification, acknowledgement for obtained goals and outcomes. Presentations and publication will also help build momentum with this project. The biggest sustainability factor will be decreased assaults and injuries to staff.

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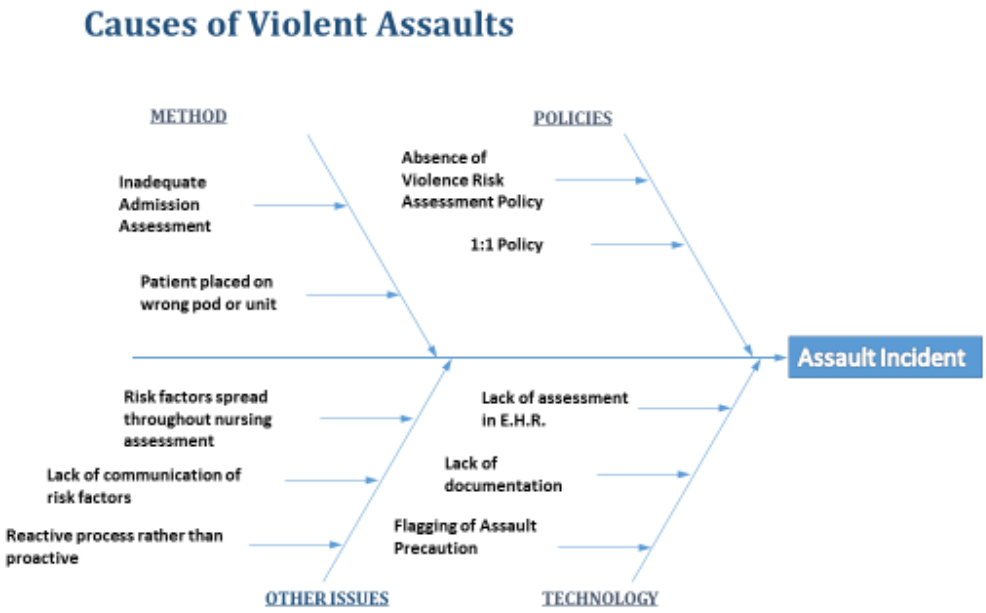
Appendix

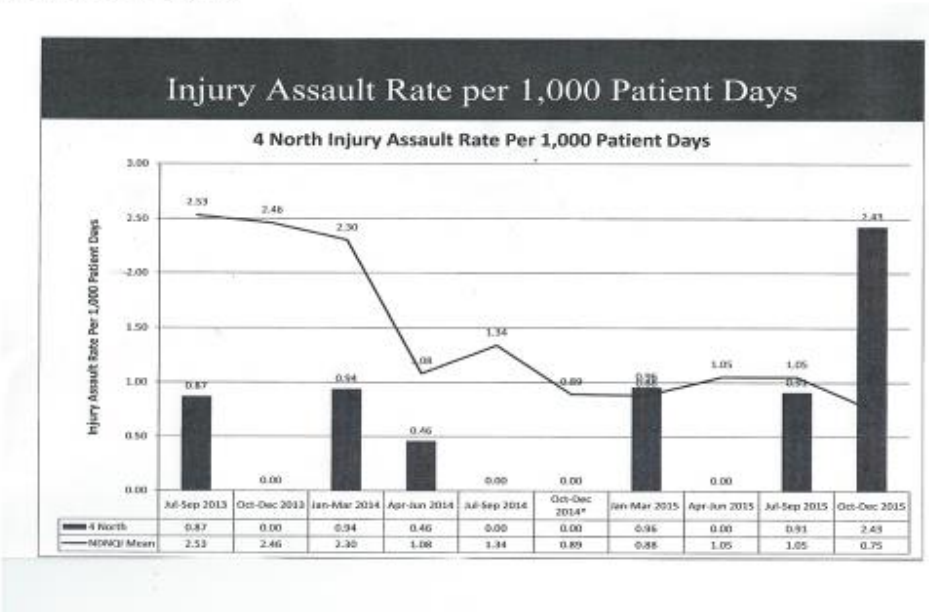
1. Fishbone diagram: Causes of assaults
2. Assault rates per 1,000 patient days
3. SWOT analysis
4. Cost analysis
5. Stakeholder analysis
6. DASA VRA tool
7. MOAS VRA tool
8. BVC VRA tool
9. VRA nurse survey
10. VRA Implementation timeline

1. Fishbone diagram: Causes of assaults

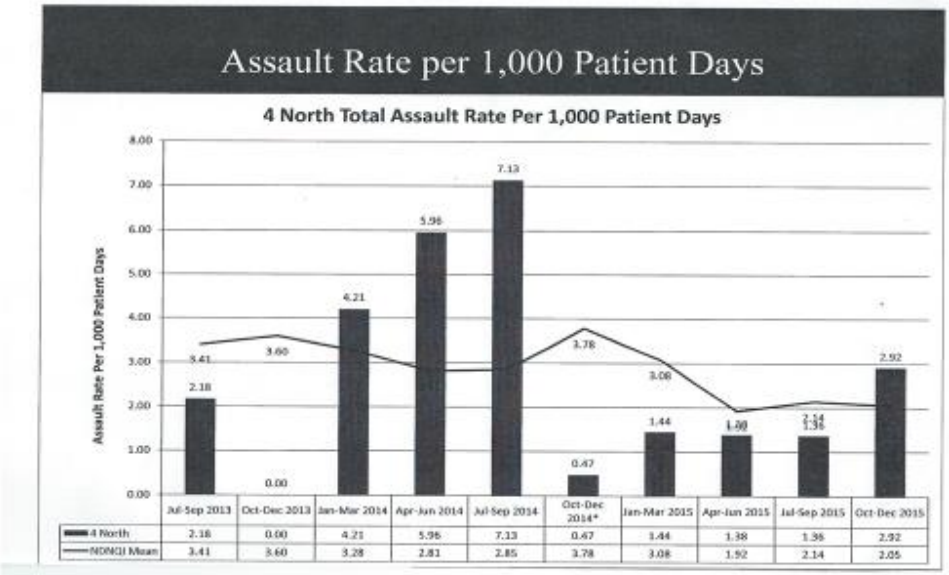


2. Assault rates per 1,000 patient days

Assault Rates



Assault Rates with Injuries



3. SWOT analysis

SWOT Analysis

Strengths	Weaknesses
• Shared Governance • Evidenced based practice is valued • Data supports need for project • Nurses with excellent clinical skills • Support of leadership • Electronic Health Record in place	• Lack of structured assessment tool • Too many assault incidents and injuries have occurred • Change process can be slow because of approvals process • Lack of existing policy
Opportunities	**Threats**
• Implementation of VRA for all admissions and every shift • VRA can be built into E.H.R. • Ability to have desired outcomes to decrease assaults and injuries • Improved Nurse/staff safety and satisfaction	• Approval from authors to use tool (Broset Violence Checklist) if chosen • Cost of use of tool • Delays in implementation

4. Cost analysis

Cost Analysis of VRA Implementation

Item	Costs
Planning meetings	$4,000
Presentation of Project to Committees	$4,600
Test of change; pilot	$7,560
Projected Items	**Projected Costs**
Follow up meeting	$2,000
E.H.R. build	$4,000
l	**Total Costs**
	$22,160
Projected Benefits of Project	
Savings in nurse retention	$100,000
Savings in missed days of work	$187,200
Savings in staff/patient injury care	$20,000
	Projected Total Savings
	$307,200

5. Stakeholder analysis

Stakeholder Analysis of VRA Implementation

Stakeholder Name	Importance of Stakeholder	Current Level of Support	What do we want from stakeholder	What is important to stakeholder	How could stakeholder block the project	What is the strategy for enhancing stakeholder support
Medical Staff	Medium	High	Support of the project Support in physician orders for increased patient observation level if needed	Patient Safety	Disapproval of project	Present project and benefits of project
Nursing Leadership	High	High	Support of the project, time, and resources	Patient Safety Staff satisfaction	By not providing resources	Present project and benefits of project
Staff RNs	High	High	Support of the project Adjusting to the change process	Staff safety and satisfaction. Limit time documenting	By resisting change and "more to chart"	Present project and benefits of project such as safety
Patients/Families	High	High	Adherence with admission and assessment process	Unit/Pt safety	Declining to answer assessment questions	Inform patients and families during admission and every shift
E.H.R. Department	High	High	Support of the project Completion of changes to E.H.R.	Expedient in communicating and completing desired changes	Not giving project time and priority	Work with informatics department to enhance EHR
Performance Improvement Department	High	High	Support of the project Data analysis	Identify need. Meet desired outcomes	Slowing process by not providing data	Meet with PI to discuss desired outcomes
Magnet Committee	Medium	High	Recognition of project	Demonstrating and documenting EBP	Requiring additional data to support project.	Document process and discuss how this will help magnet journey

6. DASA VRA tool

Dynamic Appraisal of Situational Aggression

Name:_____

Week beginning:____/____/____

The following ratings are based on your knowledge and observations of the patient during the PREVIOUS 24 HOURS. Well-known patients are scored a 1 for an increase in the behaviour described, the patient's usual behaviour while being non-violent is scored as 0.	Monday (Circle One)	Tuesday (Circle One)	Wednesday (Circle One)	Thursday (Circle One)	Friday (Circle One)	Saturday (Circle One)	Sunday (Circle One)
Irritability The patient is easily annoyed or angered. The patient is unable to tolerate the presence of others.	0 1	0 1	0 1	0 1	0 1	0 1	0 1
Impulsivity The patient displays behavioural and affective instability (i.e., dramatic fluctuations in mood, or general demeanour; inability to remain composed and directed).	0 1	0 1	0 1	0 1	0 1	0 1	0 1
Unwillingness to Follow Directions The patient tends to become angry or aggressive when they are asked to adhere to treatment or to the ward's routine.	0 1	0 1	0 1	0 1	0 1	0 1	0 1
Sensitivity to Perceived Provocation The patient tends to see other people's actions as deliberate and harmful; they may misinterpret other people's behaviour or respond with anger in a disproportionate manner to the extent of provocation.	0 1	0 1	0 1	0 1	0 1	0 1	0 1
Easily Angered When Requests are Denied The patient tends to be intolerant, or is easily angered when they make a request that is denied or when they are asked to wait.	0 1	0 1	0 1	0 1	0 1	0 1	0 1
Negative Attitudes The patient displays antisocial and negative attitudes and beliefs which may relate to violence and aggression.	0 1	0 1	0 1	0 1	0 1	0 1	0 1
Verbal Threats The patient displayed a verbal outburst, which is more than just a raised voice, and where there is a definite intent to intimidate or threaten another person.	0 1	0 1	0 1	0 1	0 1	0 1	0 1
Total	/7	/7	/7	/7	/7	/7	/7
Final risk rating Based on the DASA score and clinical assessment rate (H) high, (M) medium or (L) low risk for the next 24 hours.							
Record of aggression During the previous 24 hours has the patient behaved aggressively in any of the following ways? (Please mark with a cross in the appropriate box)							
Physical Aggression against OBJECTS Slams door, throws objects down, kicks furniture, breaks objects, smashes windows, sets fires, throws objects.							
Verbal Aggression against OTHER PEOPLE Shouts angrily, insults, curses viciously, uses foul language in anger, or makes clear threats of violence to others.							
Physical Aggression against OTHER PEOPLE Makes threatening gesture, swings at people, grabs at clothes, strikes, kicks, pushes, pulls hair, or attacks others.							

7. MOAS VRA Tool

The Modified Overt Aggression Scale (MOAS)*
Patient_____ Date_____ Shift_____
DIRECTIONS:
Rate the patient's aggressive behavior ***over the past shift***. For each category of aggressive behavior, check the ***highest*** applicable rating point to describe the most serious act of aggression committed by the patient during the specified observation period.

***Verbal Aggression*: Verbal hostility, statements or invectives that seek to inflict psychological harm on another through devaluation/degradation, and threats of physical attack.**
___0. No verbal aggression
___ 1. Shouts angrily, curses mildly, or makes personal insults
___ 2. Curses viciously, is severely insulting, has temper outbursts
___ 3. Impulsively threatens violence toward others or self
___ 4. Threatens violence toward others or self repeatedly or deliberately (e.g., to gain money or sex)

***Aggression Against Property:* Wanton and reckless destruction of ward paraphernalia or other's possessions.**
___ 0. No aggression against property
___ 1. Slams door angrily, rips clothing, urinates on floor
___ 2. Throws objects down, kicks furniture, defaces walls
___ 3. Breaks objects, smashes windows
___ 4. Sets fires, throws objects dangerously

***Autoaggression:* Physical injury toward oneself, self-mutilation, or suicide attempt.**
___ 0. No autoaggression
___ 1. Picks or scratches skin, pulls hair out, hits self (without injury)
___ 2. Bangs head, hits fists into walls, throws self on floor
___ 3. Inflicts minor cuts, bruises, burns or welts on self
___ 4. Inflicts major injury on self or makes a suicide attempt

***Physical Aggression*: Violent action intended to inflict pain, bodily harm, or death upon another.**
___ 0. No physical aggression
___ 1. Makes menacing gestures, swings at people, grabs at clothing
___ 2. Strikes, pushes, scratches, pulls hair of others (without injury)
___ 3. Attacks others, causing mild injury (bruises, sprains, welts, etc.)
___ 4. Attacks others, causing serious injury (fracture, loss of teeth, deep cuts, loss of consciousness, etc.)

SCORING SUMMARY ***(Maximum Score of 40)***

Rating Summary Scale	**Scaled Score**	**Weights**	**Weighted Score**
Verbal Aggression		X1	
Aggression Against Property		X2	
Autoaggression		X3	
Physical Aggression		X4	
Total Weighted Score			

8. BVC VRA Tool

•bvc

The Brøset Violence Checklist © (BVC) - quick instructions:
Score the patient at agreed time on every shift. Absence of behaviour gives a score of 0. Presence of behaviour gives a score of 1. Maximum score (SUM) is 6. If behaviour is normal for a well known client, only an increase in behaviour scores 1, e.g. if a well know client normally is confused (has been so for a long time) this will give a score of 0. If an **increase** in confusion is observed this gives a score of 1.

Patient/Client data

Monday / /	Day	Evening	Night
Confused			
Irritable			
Boisterous			
Verbal threats			
Physical threats			
Atacking objects			
SUM			

Tuesday / /	Day	Evening	Night
Confused			
Irritable			
Boisterous			
Verbal threats			
Physical threats			
Attacking objects			
SUM			

Wednesday / /	Day	Evening	Night
Confused			
Irritable			
Boisterous			
Verbal threats			
Physical threats			
Atacking objects			
SUM			

Thursday / /	Day	Evening	Night
Confused			
Irritable			
Boisterous			
Verbal threats			
Physical threats			
Attacking objects			
SUM			

Friday / /	Day	Evening	Night
Confused			
Irritable			
Boisterous			
Verbal threats			
Physical threats			
Atacking objects			
SUM			

Saturday / /	Day	Evening	Night
Confused			
Irritable			
Boisterous			
Verbal threats			
Physical threats			
Attacking objects			
SUM			

Sunday / /	Day	Evening	Night
Confused			
Irritable			
Boisterous			
Verbal threats			
Physical threats			
Atacking objects			
SUM			

9. Timeline for VRA Implementation

Timeline

Action Item	Responsible Party	Time frame/Date
• Identification of VRA tools to be piloted	CNL, Unit Manager, Evidenced Based Practice Committee	3-28-16
• Train and educate nurses on use of VRA	CNL, Charge nurses	3-30-16 thru 4-10-16
• Begin piloting VRA on unit	CNL, Clinical Nurses	4-11-16
• Completion of pilot project	CNL, Clinical Nurses	6-4-16
• Survey Monkey posted and emailed to all Clinical Nurses	Nurse Educator	6-6-16
• Survey Monkey to be completed by Clinical Nurses	Clinical Nurses	6-26-16
• Aggregation of survey data	Analyst	7-1-16
• Selection of VRA	CNL, Unit Manager, EBP Committee, Nursing Steering Committee	7-11-16
• Implementation of VRA in E.H.R.	CNL, Unit Manager, Informatics Committee, Nurse informatics	8-8-16
• Measure and review outcomes	Analyst, CNL	9-12-16
• Identify additional practice needs to meet outcomes	CNL, Clinical Nurses, EBP Committee	9-23-16
• Re-measure and review outcomes	Analyst, CNL	Monthly, Quarterly
• Present findings, outcomes	CNL	Monthly, Quarterly