Therapeutic Intervention: An Initiative to Improve Early Recognition and Response to Patients in Escalating Behavioral Crises

Dorrie Edgeston-Jones

College of Nursing, East Carolina University

Doctor of Nursing Practice Program

Dr. Dianne Marshburn

July 10, 2023

Abstract

Direct care clinical staff on non-mental health units are at risk of abuse, harassment, assault, and disruptive behavior when caring for medical patients with mental or behavioral issues. Early recognition of escalating behaviors and the ability to de-escalate can reduce aggressive and threatening situations. Often, medical staff members are not trained to manage behavioral crises. Staff are uncertain of available resources and the correct activation levels for behavioral response teams. The lack of knowledge, skill, and experience has led to inundated activations and the overutilization of resource teams. This project aimed to implement an educational initiative to increase staff knowledge and skill, decrease activations, maintain patient safety, decrease staff injuries, and manage resources related to therapeutic interventions and behavioral emergencies. The Plan, Do, Study, Act (PDSA) continuous quality improvement process was implemented at a 970-bed, private, not-for-profit medical center. Established goals were achieved by utilizing key members of the behavioral response team in educating clinical staff through real-time training, disseminating tip sheets and pocket handouts, and reinforcing organizational policy. Qualitative and quantitative results support the initiative's significance as clinical staff felt more confident in recognizing and caring for patients demonstrating escalating behaviors. Response activations trended down. Staff injuries remained stable and were rarely associated with crisis interventions. The efficient use of organizational resources promoted comprehensive care and effective cost management that supports safe practices, scalability, and sustainability.

Keywords: mental health, therapeutic intervention, behavioral crisis, de-escalation, early recognition, response teams

Table of Contents

Abstract ………………………………………………………………………………………. 2

Section I: Introduction ..……………………………………………………………………… 5

Background……………………………………………………………………………… 5

Organizational Needs Statement……………………………………………………… 5

Problem Statement……………………………………………………………………..9

Purpose Statement…………………………………………………………………….. 9

Section II: Evidence………………………………………………………………………...10

Literature Review……………………………………………………………………...10

Evidence-Based Practice Framework…………………………………………………15

Ethical Consideration and Protection of Human Subjects………………………………16

Section III: Project Design……………………………………………………………………18

Project Site and Population……………………………………………………………18

Project Team…………………………………………………………………………..19

Project Goals and Outcomes Measures………………………………………………..20

Implementation Plan…………………………………………………………………..23

Timeline…………………………………………………………………………………24

Section IV: Results and Findings……………………………………………………………. 25

Results…………………………………………………………………………………... 25

Discussion of Major Findings…………………………………………………………30

Section V: Interpretation and Implications…………………………………………………32

Costs and Resource Management……………………………………………………..32

Implications of the Findings…………………………………………………………. 33

Sustainability ……………………………………………………………………… 34

Dissemination Plan …………………………………………………………………...35

Section VI: Conclusion……………………………………………………………………… 37

Limitations and Facilitators………………………………………………………………..37

Recommendations for Others………………………………………………………………39

Recommendations for Further Study……………………………………………………… 41

Final Thoughts……………………………………………………………………………...41

References……………………………………………………………………………………..43

Appendices ……………………………………………………………………………….....46

Appendix A: Project Site Approval Letter ………………………………………………46

Appendix B: Initial Survey Questions …………………………………………………...47

Appendix C: Pre- and Post-Questions for Clinical Staff ..………………………………48

Appendix D: Response Team Follow-up Survey …………………………………… 49

Appendix E: Project Education Tip Sheets ..…………………………………………… 50

Appendix F: Data Collection Spreadsheet for Staff Injuries and Response Team Activations …………………………………………………………….... 51

Appendix G: Daily Behavioral and Therapeutic Response Team Activation Data Collection Spreadsheet …………………………………………………52

Appendix H: Project Timeline……………………………………………………………...53

Appendix I: Pre- and Post-Survey Comparison Chart…………………………………...54

Appendix J: Response Activations …………………………………………………….…..55

Appendix K: Staff Injuries…………………………………………………………………56

Appendix L: Injuries Related to Behavioral Crises ………………………. …………57

Appendix M: Itemized Budget ...……………………………………………………..58

Section I. Introduction

Background

A quality improvement project for educating clinical staff in managing patients with escalating behaviors was implemented at a 970-bed academic tertiary care center. The partnering organization is private and not-for-profit. In support of the hospital system's mission and commitment to improving the health and well-being of the community, the organization's policy focused on initiating behavioral crisis response teams is under review. The current response to patients in an escalating behavioral crisis involves two levels depending on the patient's degree of agitation and aggression (director of mental health services, personal communication, June 15, 2022). Level one, therapeutic intervention, is activated when a patient has acute mental status changes resulting in agitation and is not responsive to verbal de-escalation. Level two, behavioral emergency, is activated when the patient has an acute mental status change that produces uncontrollable, threatening behavior, and the patient's condition may harm themselves or others. The response team includes interprofessional members: the clinical administrator, mental health rounding nurse, mental health technician rounder, campus police, and public safety officers. Campus officers respond when level two is activated only. The project was a quality improvement initiative that promoted therapeutic interventions, improvement of early recognition, and proper response to patients in escalating behavioral crises.

Organizational Needs Statement

Observations by response team members and interviews conducted by the emergency management team revealed that direct care staff often need clarification on the difference between behavioral crisis response levels. There was an opportunity to develop knowledge, skill, and experience in effectively caring for medical patients with behavioral issues (system quality

oversight committee, personal communication, May 20, 2022). Staff inexperience and misidentification of escalating behaviors have led to an inundation of calls averaging 250 a month, reflected in the organization's response activation data collected in 2022. The number of calls for response team activation results in the overutilization of resources. Nurses require education on early recognition of escalating behaviors, appropriate de-escalation techniques, and activation of correct response levels.

An evolving literature review supports the need for early recognition and de-escalation of behavioral crises. Zicko et al. (2017) presented background relative to nursing knowledge of behavioral management in non-mental health units. Nurses need to be better educated on behavioral crises, understand escalating features, and how to address threatening or disruptive situations. Healthcare professionals are at serious risk of physical abuse, harassment, threatening, and disruptive behavior (United States Department of Labor Occupational Safety and Health Administration [OSHA], n.d.). In 2018, 73% of healthcare workers suffered from nonfatal injuries in the workplace (U.S. Bureau of Labor Statistics [BLS], 2020). Between 2011 and 2018, 156 fatal incidents involving healthcare workers were reported in the United States. Out of the 156 fatalities, 41 resulted from violence of the patient, client, or customer. Behavioral response teams are formed, policies created, and educational initiatives implemented to counter the potential risk factors associated with inattention to escalating behaviors. Nevertheless, fidelity to the policies and processes depends on staff members being appropriately trained and competent regarding de-escalation techniques and prevention strategies.

Early recognition and de-escalation techniques are effective strategies against potentially aggressive and threatening patient behaviors. These tools can reduce disruptive behaviors, assault, and abuse (Perez-Toribio et al., 2022). Invasive interventions such as seclusion and

restraints can also be minimized using verbal and non-verbal de-escalation techniques. Dixon and Long (2021) implemented a quality improvement initiative targeting registered nurses and mental health technicians to decrease the number of crisis interventions resulting in seclusion or restraint. The initiative aimed to educate all participants in self-awareness, de-escalation techniques, and effective communication between team members. The self-awareness education focused on personal coping skills. Education on de-escalation focused on unceasing respect and dignity towards patients, self-reflection, self-control, and self-preservation. Participants were educated on early recognition, distraction techniques, maintaining situational control, and postintervention techniques should de-escalation efforts fail. Results yielded a significant decrease in seclusion and restraint use over three months. Dixon and Long (2021) reported that education-based interventions for staff would improve patient care outcomes and support safe work environments.

As stated, the project site has an established behavioral crisis response team. These team members have been trained in nonviolent techniques during the organization's orientation process. Staff nurses on medical units are not required to receive such training. There is a need to increase nursing staff knowledge and skills to decrease call activation for behavioral crisis response teams and to maintain patient and staff safety. This need intersects with the Quadruple Aim and Healthy People 2030. The Quadruple Aim was established to enhance healthcare systems by improving the patient experience, supporting better health outcomes, lowering healthcare costs, and bettering the experience and well-being of the healthcare worker (Bachynsky, 2020). Healthy People 2030 is a nationwide initiative to improve the health and well-being of all people in the United States by setting specific goals and objectives relative to

health conditions, behaviors, populations, settings, systems, and social determinants (U.S. Department of Health and Human Services [DHHS], 2021).

The initiative to improve early recognition and appropriate response to patients in escalating behavioral crises addresses all four aspects of the Quadruple Aim by improving the patient experience and clinical experience by supporting the nurse and the patient during behavioral crises. Tools and resources, such as communication strategies, de-escalation techniques, and organizational policy, are required to de-escalate situations and ensure the safety of patients and staff members. These resources are provided when response teams are activated, leading to better outcomes. The project supports lowering costs as resource costs will decrease with appropriate responses to escalating behavioral crises and decreased activations of the call teams.

The project also promotes the Healthy People 2030 initiative to improve quality care outcomes and address health conditions, behaviors, populations, healthcare settings, and systems by increasing nursing staff knowledge, skill, and practice in the early recognition of escalating behaviors. The health condition addressed in the therapeutic intervention initiative is mental health within the adult population in medical-surgical and telemetry units. Behaviors associated with mental health can precipitate workplace violence and injury, which are focused topics for improvement of Health People 2030 (U.S. Department of Health and Human Services [DHHS], 2021). Workplace violence and injury were addressed by key stakeholders involved in the therapeutic intervention initiative. Additional teachings involving appropriate de-escalation techniques and activation of correct response levels decrease workplace violence and injury. Hospital policies support healthcare settings by providing clear guidelines and expectations of staff roles and responsibilities relevant to escalating behaviors, de-escalation strategies, and

activating correct response levels. Enhanced knowledge and experience in the staff caring for medical patients with behavioral health issues improve access to the appropriate resources required for therapeutic interventions and support comprehensive care (Perez-Toribio et al., 2022).

Problem Statement

Staff members on medical-surgical units who provide direct care to patients are often unsure of the difference between response levels when activating response teams for patients in behavioral health crises. Inexperience and misidentification of escalating behaviors have led to inundated calls for response team activation and the overutilization of resource teams. Staff members are not trained in de-escalation techniques or early recognition of escalating behaviors. Staff lacked knowledge, skill, and experience regarding how to care for medical patients with behavioral issues effectively.

Purpose Statement

This project aimed to increase nursing staff knowledge and skill, decrease call activation for response teams, and support patient and staff safety related to early recognition of escalating behaviors, appropriate de-escalation techniques, and activation of correct response levels. Established goals were achieved by educating clinical staff through real-time training, disseminating tip sheets and pocket handouts, and reinforcing policy. In collaboration with the system quality oversight committee responsible for reviewing the patient in crisis policy, an examination of the policy occurred to identify opportunities for improvement. Project implementation goals were to maintain patient safety and decrease staff injuries related to behavioral crises.

Section II. Evidence

Literature Review

A literature review was conducted by determining search terms, utilizing scholarly sources of knowledge, detailing the search process, and selecting relevant sources to retain and apply to the project. Keywords such as “crisis intervention," "therapeutic response, “behavioral health response team," "de-escalation," "staff injury," and “behavioral emergency” were searched utilizing PubMed, Cumulative Index to Nursing and Allied Literature (CINAHL), and ProQuest Nursing and Allied Health databases. Inclusive search factors were sources published within five years in English, full text with abstract, scholarly, peer-reviewed, and evidence-based. Scholarly work based on inpatient settings involving educational initiatives in caring for patients in escalating crises were additional inclusive factors. Sources that did not include these factors were excluded. National and governmental sites such as the U.S. Department of Health and Human Services, U.S. Bureau of Labor Statistics, and United States Department of Labor Occupational Safety and Health Administration were searched to obtain data related to mental health, workplace violence, and associated injuries.

The search resulted in 637 articles. Many terms yielded broad content, which prompted a narrower search utilizing two or more key terms grouped together. Many articles were excluded as the articles were not relevant to staff members caring for medical patients with behavioral issues. Other excluded articles focused on healthcare environments, namely emergency departments, mobile care units, and mental health facilities. A total of 30 articles were selected based on inclusive and exclusive criteria. Article abstracts were re-read, and the levels of evidence pyramid according to Grove and Gray (2019) were reviewed. After the abstract review, additional articles were excluded due to the irrelevancy of the healthcare setting, patient

population, and staff roles. Several articles discussed behavioral response teams but failed to involve current knowledge about educating staff members who lack experience in de-escalation techniques or early recognition of escalating behaviors. The remaining articles ranged from all levels of evidence and were kept. Ultimately, eight articles were chosen as evidence to support the project initiative.

Current State of Knowledge

The literature substantiates the significance of de-escalation when caring for patients with disruptive behaviors. Such behaviors can be precipitated by hospitalization, isolation, increased length of stay, untreated cognitive issues, substance use, mood, anxiety, and psychiatric disorders (Tommasini & Iennaco, 2022). Staff trained and educated in managing behavioral crises can reduce escalations and exposure to assaultive or dangerous situations. Competency in early recognition of escalating behaviors and appropriate therapeutic crisis interventions requires understanding the organization's policies, procedures, and processes to promote evidence-based quality care measures. Staff expectations, roles, and responsibilities must be known to implement successful practices that promote experience and competency in caring for patients with escalating behaviors.

Behavioral health response teams (BHRT) address behavioral emergencies in non-behavioral health units where staff are least likely prepared to manage escalating behaviors (Lockhart, 2020). These teams have been implemented in most hospital organizations within the United States and are essential resources skilled in mental health and experienced in behavioral crisis management. Common titles for these teams are behavioral emergency response teams (BERT) and behavioral action teams (BAT). Much information about implementing these response teams and positive outcomes has been found in the literature. There is limited literature

on educating and training inexperienced staff to care for patients in escalating situations. Zicko et al. (2017) report that 97.4% of nurses in non-behavioral health units are exposed to abusive or threatening behaviors in a year. Recognizing escalating behaviors early and initiating de-escalation interventions can neutralize a potential crisis and minimize injury before activating a response team (Perez-Toribio et al., 2022).

Organizational policies and guidelines are implemented to support safe working environments and aim to identify risk factors for disruptive behaviors, abuse, or threatening situations (Spelten et al., 2020). Policies promote shared understanding, accountability, and efficiency in daily operations. Therefore, policies and guidelines can support educational initiatives that describe the roles and responsibilities of staff members in medical-surgical units caring for patients in behavioral health crises.

Current Approaches to Solving Population Problem(s)

Literature provides supportive evidence that addresses the lack of knowledge, skill, and experience of non-mental health nursing staff when caring for medical patients with behavioral issues. Approaches found that address inexperience and misidentification of escalating behaviors include implementing policies that establish safe processes when managing escalating situations, initiating training programs to improve clinical practices, and utilizing members of behavioral health response teams to educate staff (Christensen et al., 2022; Spelten et al., 2020; Zicko et al., 2017). The partnering project organization has implemented these evidence-based practices except for formal educational strategies and content initiated by response team members as learning opportunities such as appropriate responses to escalating situations, self-reflection, organizational policy, guidelines, and additional resources available to support identified needs, professional growth, and development.

Organizational Policy. The partnering organization has established policies to minimize potential workplace threats. Environmental and risk management teams are in place to prevent and monitor workplace violence. Aggression in the workplace and the potential adverse risks associated with escalating crises can be prevented by creating guidelines, risk assessments, warning alarms, and security systems (Spelten et al., 2020). Specific policies that outline crisis intervention, workplace violence, and incident reporting processes are in place to provide supportive resources. Marketing and communication strategies are made available through signage, pamphlets, and social media to provide information regarding wait times, visitation hours, and the scope of services. Supportive organizations provide protective regulatory structures such as police attendance, security, adequate staffing, and support. Legislative frameworks are enforced to provide awareness of protective measures, policies, and resources to support and sustain safe healthcare environments.

Training Programs. The partnering organization provides three training programs relevant to caring for patients requiring behavioral crisis interventions. Training allows staff to build knowledge, skills, and experience that support effective care practices and safety culture. An article by Christensen et al. (2022) described a de-escalation program to improve clinical practices in the inpatient care setting. Non-behavioral staff training included an education module, a one-hour training session, and pre- and post-questionnaires. The module detailed interaction techniques to promote safety, informed staff on when to activate the behavioral response team, and introduced steps in incident reporting. The one-hour training session included re-enactment scenarios, participative demonstrations, and a debriefing with behavioral experts. The program increased nursing confidence and the ability to care for patients with behavioral health issues. Supportive partnerships were forged between staff, behavioral response team

members, and security. Training staff on risk factors associated with aggression, anxiety, and agitation is essential in preparing the nurse to recognize escalating behaviors early, initiate the appropriate de-escalation strategies, and utilize supportive resources like the behavioral response team (Spencer et al., 2018).

Behavioral Health Response Teams. Behavioral health response team members possess specialized skills in de-escalation, physical interventions, and behavioral care planning. These teams are often relied upon to role model therapeutic crisis intervention skills and provide consultation, education, and debriefing to address learning opportunities in caring for patients with behavioral or mental issues (Zicko et al., 2017). The BHRT process at the partnering agency details roles and responsibilities outlined in the policy. There are limitations to the responsibilities detailed in the behavioral response to patients in crisis policy (director of mental health services, personal communication, October 26, 2021) as the educational content is not defined. Therefore, the approach chosen to improve staff knowledge, skill, and experience was a standardized approach to educating staff on responding appropriately to escalating issues. Staff were also informed of the policies, processes, and resources available to provide additional training to promote effective and efficient care practices.

Evidence to Support the Intervention

The project initiative to improve early recognition and the appropriate response to patients in escalating behavioral crises is supported by current knowledge and approaches as presented in the literature. Tommasini and Iennaco (2022) implemented a behavioral emergency support program to address managing disruptive behavior in the medical setting. The program involved developing a behavioral response team, training team members in managing disruptive situations, and utilizing the expertise of the members to provide support, education, and

consultation to non-mental health staff. The implementation of the model was examined over two years. Utilizing the behavioral response team heightened staff morale, promoted environmental safety, and increased knowledge in caring for the behavioral health population.

Educational initiatives to increase nursing staff knowledge, skill, and experience promote consistent learning experiences and the safety of patients and healthcare workers (Tommasini & Iennaco, 2022). Adding a new education strategy to be performed by response team members was the best intervention for the partnering organization. The organization has an established behavioral health response team composed of key stakeholders, the clinical administrator, mental health rounding nurse, mental health technician rounder, campus police, and public safety officers who frequently engage staff members in medical units and are often consultive resources available to inform staff of policies, procedures, and processes. The team members also connect staff to the appropriate resources and liaise between interdisciplinary care team members, patients, and families. Utilizing the invaluable expertise of response team members during a behavioral crisis builds knowledge and confidence for novice staff.

Evidence-Based Practice Framework

The project was executed using the Plan, Do, Study, Act (PDSA) cycle to continually evaluate the quality improvement initiative process. The PDSA cycle is a continuous quality improvement (CQI) process that originated with engineers in the 1930s and was further developed by Deming (1986) to evaluate quality initiatives in automobile manufacturing. The PDSA improvement cycle incorporates steps to establish a plan, implement the plan, study and evaluate the process after implementation, and act by recommending improved changes (Laverentz & Kumm, 2017). Based on the process evaluation, recommendations are applied and re-evaluated. Expected project outcomes were decreased call activation for response teams and

staff injuries while maintaining patient safety. The established plan was to utilize the behavioral response team to educate staff nurses. Education was provided through real-time training, tip sheets, pocket handouts, and reinforcing policy. Strategies related to early recognition of escalating behaviors, appropriate de-escalation techniques, and activation of correct response levels were offered. During the implementation of the plan, data was collected to evaluate the number of response team activations, staff injuries, and the average cost of each behavioral response team initiation. Results were studied and compared to expected outcomes to facilitate continual learning and improvements. Two PDSA cycles were completed during the implementation phase, as ongoing evaluations assessed nursing knowledge, skill, and quality care outcomes.

Ethical Consideration & Protection of Human Subjects

In preparation for the formal project approval process, the project leader completed the Collaborative Institutional Training Initiative (CITI, 2022) Program course for research investigators to promote knowledge of the ethical principles of research and the federal regulations to protect research participants. Selection of a partnering agency and a project site champion was required before approval to facilitate project development, implementation, evaluation, and dissemination. After selection, the project proposal was submitted to the project approval board of the accepting agency. The approval board reviewed the project background, significance, expected outcomes, study design, and method. After review, the accepting agency deemed the project a quality improvement initiative requiring no Institutional Review Board (IRB). See Appendix A for a copy of the approval letter from the agency. An approval tool, a compliance worksheet, and a quality self-certification worksheet detailing project criteria and rationale were submitted to the educational institution for formal approval. The university

process also considered the project a quality improvement initiative, requiring no further IRB review.

Respect for persons, beneficence, and justice are the ethical principles that guide research and protect human rights (Grove & Gray, 2019). Respect for persons supports autonomy and the right to choose participation and preserves informed consent. Beneficence ensures integrity, minimizes risks to participants, and promotes benefits. The researcher is expected to do good. Justice provides the right to equity and equality, ensuring inclusion and exclusion as appropriate and overall fairness. Ethical principles must be considered in each quality improvement project.

The project aimed to improve the practice of caring for patients during a behavioral health crisis within a particular organization and preserved the principles of respect for persons, beneficence, and justice (CITI, 2022). Each participant had the right to choose whether to participate or not. The project intended to do good and ensure quality patient, staff, and organization outcomes. Each intervention provided equal and equitable opportunities for each nurse on medical-surgical and telemetry units caring for patients with behavioral or mental health issues. The operational framework consisted of well-accepted practices supported by evidence. Educational interventions were safe and involved minimal risk to staff as the probability of harm was unchanged compared to routine patient encounters. Participants were treated as anonymous agents, and there was no potential for any exploitation or discomfort of participants during project implementation.

Section III. Project Design

Project Site and Population

The project was supported by an academic tertiary care center dedicated to innovative healthcare delivery and advanced care services. The project's facilitators were members of the clinical research institute (CRI), the project site's research department. The CRI approved and supported project initiatives. The mental health and well-being nursing services director was the project site champion and staff mentor. The site champion and CRI members guided project implementation, data collection, and barrier-related recommendations. The leadership teams of the units participating in the project helped to drive staff participation and identify opportunities for improvement during the project implementation. Potential project barriers were the representativeness of the target population and limited participation. The project lead promoted participation by remaining present on participating units, communicating the project aim, engaging unit leadership and clinical staff, and keeping project team members well-informed on project processes.

Description of the Setting

The partnering organization was a 970-bed, private, not-for-profit medical center. The organization served Wake County, located in the north-central region of North Carolina, providing care to a large number of Medicaid, uninsured, and underinsured patients (director of revenue cycle, personal communication, June 7, 2022). The project was implemented throughout four medical-surgical and four telemetry units in the hospital inpatient setting. The four medical-surgical units were intermediate care units with medical, renal, orthopedic, oncology, general surgery, and trauma patient populations. The number of beds on each unit ranged from 29 to 39 beds. The four telemetry units were intermediate care units with cardiovascular and surgical

patient populations. The number of beds on each unit ranged from 19 to 41 beds. The nurse-to-patient ratio was 4:1 and 5:1 based on patient acuity.

Description of the Population

Participants included a convenience group of employees. The primary participant focus was on each unit's core clinical nursing staff. Additional participants included travel or contract nurses, nursing assistants, and medical assistants. Nursing staff members, including travel and contract, were approximately 450. The number of nursing assistants and medical assistants was approximately 150. All employees worked primarily on medical-surgical and telemetry units. The employees provided bedside care for medical patients with behavioral health issues.

Project Team

The project team included the project lead, site champion, university faculty advisor, and response team members. The project lead established the processes needed to produce the expected outcomes, executed the process plan, collected and evaluated data, and determined applicable changes to improve process outcomes. The project lead was the primary driver of the project initiative and was responsible for updating stakeholders and project team members by way of routine meetings, emails, and purposeful rounds on participation units. The project site champion and university faculty advisor offered guidance and expertise throughout project planning and implementation to ensure appropriate resources were available to support the project lead and project success. The site champion made certain that resources were available through the project site as appropriate and was a project advocate. The university faculty advisor ensured the project lead received appropriate training supporting quality improvement plans and processes. The advisor monitored the project's progress and validated ethical principles and evidence-based practice frameworks presented by the project lead. The response team members

were the clinical administrator, mental health rounding nurse, mental health technician rounder, campus police, and public safety officers. Each member was experienced in de-escalation and received training in crisis intervention as required, according to the role description. Depending on the level of response required, two or more of these members responded to a behavioral response activation. A clinical administrator or a mental health rounding registered nurse was present at each response and offered education and guidance.

Project Goals and Outcome Measures

The project goals were to increase nursing staff knowledge and skill associated with the early recognition of escalating behaviors, appropriate de-escalation techniques, activation of correct response levels, decrease response team call activations, decrease staff injuries, and promote patient and staff safety. Methods to achieve goals included educating staff nurses through real-time training, disseminating tip sheets and pocket handouts, and reinforcing policy. A goal to support lowering costs can be achieved through decreasing call activations and appropriate responses to escalating behavioral crises.

Description of the Methods and Measurement

The tools utilized to promote project participation and support measurement were flyers, an initial survey, a pre-survey, a post-survey, and a response team follow-up survey. Flyers briefly described the project's aim, start date, and all surveys' start and end dates. An initial survey was sent to response team members and unit charge nurses. The survey for response team members included two questions regarding barriers encountered when responding to behavioral health response calls and the appropriateness of calls. The survey for unit charge nurses involved three questions regarding barriers encountered when caring for patients with behavioral health issues, the appropriateness of the resources available, and an additional demographic question.

See Appendix B for the initial survey questions. The pre- and post-surveys for all direct care clinical staff consisted of the same questions, which address demographics, reporting processes, participation in educational offerings related to therapeutic intervention, staff experience, and confidence in caring for behavioral health patients and managing escalations. The purpose of the surveys was to evaluate improvement in staff knowledge, skill, and experience in managing behavioral crises, as well as the methods and processes that facilitate improvement. See Appendix C for the pre- and post-survey questions. An additional follow-up survey for response team members addressed observational insight regarding the benefits of tip sheets, pocket handouts, appropriateness of call activations, and average time spent at therapeutic crisis intervention events. See Appendix D for response team follow-up survey questions.

Standardized educational tips in the form of a tip sheet and pocket handout and the organization's behavioral response to patients in crisis policy were additional tools utilized to support project goals. See Appendix E for the details of the educational tips. The educational tips described fundamental strategies required when caring for a patient presenting with mental status changes and escalating behaviors. The document referenced appropriate communication types, de-escalation techniques, and self-awareness strategies when activating the response team, organization resources, and educational offerings. The organization’s behavioral response policy included details regarding the purpose of the behavioral response team, response levels, policy procedures, and team roles. The clinical administrator or mental health rounding registered nurse used the educational tips or policy during every response team activation to educate staff on the appropriate skill and knowledge required to manage escalating behaviors. Pocket handouts were disseminated, and the staff were directed on where and how to access the policy as needed. The project lead also performed purposeful rounds to disseminate and discuss pocket handout

information and informed staff about proper interventional strategies when caring for the medical patient with behavioral health issues.

Discussion of the Data Collection Process

An initial survey was sent to response team members and charge nurses on the participating units to determine barriers to managing patient escalations and concerns when responding to behavioral crises (see Appendix B). Survey questions addressed staff knowledge of the behavioral response policy and identified potential gaps related to appropriate resources for clinical staff. The initial survey results guided the educational content disseminated and addressed by the clinical administrator and mental health rounding nurse when responding to a therapeutic crisis intervention call. Before implementing the project, clinical staff were asked to complete the pre-survey (see Appendix C). Prior to the completion of the project, staff were asked to complete a post-survey. Behavioral response team members, clinical administrators and mental health rounding nurses, were asked to complete the response team follow-up survey. All survey data were collected through Survey Monkey® (https://www.surveymonkey.com). Participants submitted responses anonymously.

The project lead collected and compared survey responses from the data software tool. Reports were created to track and trend the number of response team activations before, during, and after implementation with the assistance of the communications center team. The occupational health department created reports on staff injuries before and after implementation. Although the reports that track the number of response calls and staff injuries were collected at intervals, each report captured bi-weekly data on a separate spreadsheet (see Appendix F). The average cost of a behavioral response team call event was analyzed based on the average pay of response team members and the time spent at each event. Data collection spreadsheets were used

to record the average cost and additional information related to project goals, such as the number of pocket handouts given, the number of response calls, time spent at each therapeutic crisis event, and the appropriateness of the team activation according to policy (see Appendix G). Spreadsheets were kept in a secure location accessible to the clinical administrator team and project lead only. The project leader, clinical administrator, and mental health rounding nurse were responsible for recording relevant information assessed during each event. The project leader monitored data collection methods weekly and as needed to ensure data accuracy and encourage participation.

Implementation Plan

Utilizing the PDSA cycle, both project interventions and measures were implemented. All project team members and facilitators were informed of the project goals, design, method, data collection expectations, and timeframe through scheduled meetings, email communication, and project flyers prior to implementation. Response team members and clinical staff of participating units were asked to complete the initial survey via Survey Monkey® (https://www.surveymonkey.com). Unit leaders were updated on the project implementation dates. Staff were notified of the initiative during purposeful rounds, team huddles, email communication, and project flyers. Staff were encouraged to participate by completing pre- and post-surveys to track productivity and identify improvement needs.

Prior to project implementation, 150 pocket handouts were distributed between the clinical administrators and mental health rounding nurses. The clinical administrator team received 100 handouts, and the mental health nurse rounder team received 50. Approximately 100 handouts were disseminated to direct care clinical staff during project implementation.

The clinical administrator and the mental health rounding registered nurse provided real-time education during each response call utilizing pocket handouts. Key points were highlighted, policy procedures were reinforced, and additional resources were provided for the behavioral situation. During implementation, data were recorded daily to evaluate the number of response team activations and time spent at each event. Results were evaluated and re-evaluated using the PDSA cycle to facilitate opportunities for improvement. Tracked data was reviewed every two to three weeks. Two PDSA evaluation cycles were conducted during the project's implementation phase.

Timeline

The initial survey was conducted between November 2022 and December 2022. The pre-survey was collected between December 2022 and January 2023. The education, purposeful rounding, and data collection period began during the implementation phase in January 2023 and ended in April 2023. Reports on the number of call activations were completed in January, March, and April 2023. The reports included daily call data over 14 weeks, beginning two weeks before project implementation. A report for the number of staff injuries was collected in January and May of 2023 and consisted of daily injury data over 14 weeks, beginning two weeks before project implementation. PDSA reviews were completed between February 20th and February 27th and March 20th and March 27th. The post-survey was conducted between mid-April 2023 through the end of April 2023. The project was completed in May 2023. The future planning needs to improve initiative effectiveness was identified at the end of the project. Final results and outcomes were presented at the project site from May 2023 through June 2023. The final presentation for the University was in July 2023. See Appendix H for timeline details.

Section IV. Results and Findings

Results

Qualitative and quantitative results from the project support the significance of educating staff on early recognition of escalating behaviors and therapeutic interventions according to evidence-based practices. The reported data reflects an initial survey distributed to the core staff and response team members. Pre- and post-surveys were prepared and disseminated to direct clinical staff on participating units. Responding team members responsible for providing the educational content throughout the project also completed a follow-up survey. Findings validated the necessity for future projects and research into crisis management for patients with mental or behavioral health issues.

Initial Survey

An initial survey focused on unit charge nurses. Fifty charge nurses out of 150 (33%) responded to the initial survey. Safety, inexperience, and limited support systems were the top responses to barriers or concerns encountered when caring for patients with behavioral health issues. Staff expressed safety concerns about limited skills and experience in managing aggressive behaviors. Room design only sometimes provided a safe environment due to the location of computer workstations, bed positions, and exits. Care providers order appropriate medications at random, delaying medication administration until a call for the response team is activated. Fifty percent of respondents felt the appropriate resources needed to care for behavioral patients were unavailable. Respondents attributed the inadequate resources to shortages of in-person constant observers, communication concerns between providers, and response time when a therapeutic crisis call is activated.

A separate survey intended for all response team members received 42 responses out of 85 (49%) individuals. Leading concerns when responding to behavioral health response calls were limited staff engagement, safety, and inappropriate call activations. Response team members noted that the primary nurse caring for the behavioral patient lacked initiative in engaging the provider and attempting to de-escalate behaviors. Communication between the primary nurse and provider regarding medications to stabilize the patient is often initiated during a crisis. Safety concerns were related to staffing inexperience and knowledge in caring for a mental health patient according to policy, such as removing patient belongings, safe-proofing the patient room at admission, and initiating the appropriate response level. Of the 42 respondents, 38% of the response team members also expressed concerns about unwarranted response activations following the behavioral response to patients in crisis policy.

Pre-survey and Post-survey

Of 600 potential clinical staff participants, 131 (29%) responded to the pre-survey. The respondents consisted of 83 (63%) registered nurses and 47 (36%) nursing assistants. Demographic findings reflected that 47 (36%) participants worked 0-2 years, 22 (17%) respondents had 3-5 years of work experience, 16 (12%) worked for 6-10 years, and 46 (35%) worked over 10 years. The post-survey revisited the same questions presented in the pre-survey. Of 600 potential responses from clinical staff, 221 (37%) were received. One hundred and seventy-three (78%) respondents were registered nurses, and 46 (21%) were nursing assistants. Findings reflected that 70 (32%) participants worked 0-2 years, 56 (25%) worked for 3-5 years, 33 (15%) for 6-10 years, and 62 (28%) over 10 years. See Appendix I for the pre- and post-survey comparison chart.

Regarding the frequency of staff experiencing patients with disruptive or threatening behaviors, pre- and post-survey comparison percentages remained close. The majority of the pre-survey respondents (49%) reported experiencing patients exhibiting aggressive or disruptive behaviors weekly. Most post-survey respondents (42%) reported weekly exposure to aggressive patients.

Concerning processes of reporting patients demonstrating aggressive behaviors reflected by pre-survey responses, the majority of respondents (81%) would notify the charge nurse. Only 17 (13%) respondents would activate a response call. Few respondents indicated the notification of the mental health rounding nurse or nurse manager. Zero participants choose to report to the clinical administrator or campus officer. Compared to the post-survey, 171 (77%) of respondents would notify the charge nurse, 31 (14%) would activate a therapeutic response call, and a low percentage would notify the mental health rounding nurse, nurse manager, clinical administrator, or campus police.

Sixty-nine (53%) of pre-survey respondents reported no confidence in caring for patients presenting with disruptive or threatening behaviors compared to 61 (47%) reported confidence. However, 113 (86%) of participating staff felt confident recognizing early escalation signs that may result in aggressive behaviors compared to 18 (14%) participants who did not feel confident in early recognition. In contrast to the post-survey, confidence in caring for patients in behavioral crisis was reported by 137 (62%) of clinical staff compared to 84 (38%) who did not feel confident. Two hundred and seven (92%) of respondents did feel confident in recognizing early escalating signs of agitation that may lead to disruptive and threatening situations compared to 14 (6%) of the respondents who did not feel confident in early recognition.

Classes specific to therapeutic crisis intervention included nonviolent crisis intervention, verbal de-escalation, and trauma-informed care. The majority of pre-survey respondents (66%) reported not attending the nonviolent crisis intervention class compared to 34% (44) respondents who attended the class. As to attending the verbal de-escalation class, 107 (82%) of respondents did not attend compared to 24 (18%) who did. Of the pre-survey respondents, 122 (93%) did not attend the trauma-informed care class, compared to 9 (7%) who indicated attendance. Post-survey responses showed relatively low participation in classes that support therapeutic intervention and behavioral crisis management. The majority of respondents (71%) did not attend the nonviolent crisis intervention class compared to 63 (29%) who did attend. Most of the survey respondents, 179 (81%), did not attend the verbal-de-escalation class, unlike 41 (19%) who did attend. Over two hundred (91%) respondents did not attend the trauma-informed care class compared to 19 (9%) participants who did attend the class.

Response Team Follow-up Survey

The total number of response team members, clinical administrator team and mental health rounding nurses, was 20. Fourteen (70%) of the 20 team members responded to the follow-up survey. All (100%) respondents agreed that the behavioral response tip sheet and pocket handout were beneficial educational tools for clinical staff caring for patients with mental and behavioral health issues. Twelve (86%) of the respondents noted increased staff participation while attending a behavioral or therapeutic call activation, and two (14%) did not. Eleven (79%) reported an increase in appropriate response to escalating behaviors according to the behavioral response to patients in crisis policy, and three (21%) did not. Eight of the fourteen respondents (57%) reported that the average time spent at a behavioral response activation was 15-20

minutes. Nine respondents (64%) reported the average time spent at therapeutic response activation to be 10-15 minutes.

Additional Results

The number of response team activations, relative to participating units only, was recorded two weeks prior to the project implementation phase, January 1, 2023, through January 14, 2023, and biweekly until the end of the project implementation on April 8, 2023 (see Appendix J). Prior to project implementation, level one response activations, also known as therapeutic interventions, were at 7 over 14 days, and level two response activations, known as behavioral emergencies, were at 28 over 14 days. Following project implementation, level one activations slightly decreased, maintaining an average of four biweekly. Level two activations decreased to 17, then to 4, with a peak of 31 during weeks five and six due to increased behavioral health inpatient admissions with extended lengths of stay. After the peak, behavioral emergency activations continued to trend downward at an average of 15 every two weeks.

Mirroring the data collection timeframe for response activations, the number of staff injuries was recorded for two weeks prior to project implementation and biweekly following implementation (see Appendix K). Staff injuries reviewed were associated with direct clinical staff on participating units, the campus officers, and constant observers who are staff members that stay at the patient's bedside due to safety and behavioral concerns. Workdays lost were recorded as well. Two weeks prior to implementation, the number of staff injuries was four. During the first two weeks following project implementation, there were two staff injuries. Injuries remained at two during weeks three through four. Three staff injuries were reported at weeks five through six and seven through eight. Zero injuries were reported at weeks nine through ten, and four injuries were reported during the last two weeks of the project.

The average for staff injuries two weeks before and throughout implementation was two every two weeks. None of the reported injuries to clinical staff were related to behavioral crisis intervention (see Appendix L). All campus officer injuries were attributed to escalating patient behaviors. Only one injury to a constant observer was reported, which was also associated with an aggressive patient. There were no workdays lost over the 14 weeks.

Discussion of Major Findings

Major findings align with the literature and support the relevance of non-behavioral clinical staff's knowledge, skill, and experience when caring for medical patients with mental or behavioral health issues. Learning needs, organizational resources, and barriers to care must be identified to fortify practices that facilitate improvement in quality care. Although there is limited literature specific to educating inexperienced, non-behavioral staff, literature maintains that education in managing behavioral crises and implementing therapeutic interventions can promote safe environments by demonstrating early recognition of escalating behaviors and competent de-escalation techniques (Christensen et al., 2022).

The behavioral emergency response team members were essential in introducing resources required to support safe practices, such as educational and training opportunities and organizational policy. In reference to the follow-up survey, the clinical administrators and mental health rounding nurses acknowledged the utilization of the real-time tip sheets and handouts as important teaching tools and noted that staff were receptive to real-time feedback and education. Staff were engaging and appreciative of the time spent by project team members. Heightened knowledge in managing escalating behaviors and staff involvement during response activations were noted. An increase in correct response activation levels was observed, which supports the staff’s understanding of policy and procedure. Utilizing response members to provide

standardized learning experiences to educate and strengthen policy effectiveness is consistent with the literature and promotes the safety of patients and healthcare workers (Tommasini & Iennaco, 2022). Other team members discovered to be significant resources in the educational initiative were unit charge nurses. According to survey responses, 75% of clinical staff reported notifying the charge nurse when escalating behaviors were observed. Utilizing the experience and training of charge nurses can also assist in staff knowledge and confidence building.

An increase in staff knowledge, skills, and experience of non-behavioral clinical staff was noted when comparing pre- and post-survey results about confidence in caring for medical patients with behavioral or mental health issues. Staff confidence in caring for patients exhibiting agitation and aggression increased from 47% to 62%. Confidence in early recognition of escalating behaviors increased from 86% to 92%. The percentage of staff who did not feel confident in caring for a behavioral patient decreased from 53% to 38%, and those who did not feel confident in early recognition decreased from 14% to 6%. As supported by Christensen et al. (2022) de-escalation program, educational initiatives utilizing expert teams build confidence, supportive partnerships, and safe environments.

Once the project was implemented, response activations began to trend down biweekly, reflecting that the learned crisis prevention strategies heightened staff awareness and reduced disruptive behaviors. As predicted by Dixon and Long (2021), educating direct care clinical staff in self-awareness, de-escalation techniques, and effective communication would decrease behavioral crisis interventions. Although the learning strategy to educate staff in real-time facilitated competency development, other educational offerings were not used to the advantage of clinical staff. Survey responses suggest that class participation relative to caring for patients with mental or behavioral health issues remained unchanged.

Section V. Interpretation and Implications

Costs and Resource Management

Valued project outcomes compared to expenditures exhibited effective costs as resources were used and managed efficiently. Project hours and tools utilized in implementing the quality initiative apply to the established roles and responsibilities of the organization’s team members. The team members can effectively manage the resources required to foster safe care environments and support the mental health population and clinical staff caring for patients with mental or behavioral conditions. There is a beneficial opportunity to implement this project on a larger scale as the key educational content and dissemination methods have been created, therefore limiting costs. See Appendix M for an itemized budget.

The project leader committed approximately 140 hours to project research, development, planning, implementation, management, process evaluation, and dissemination of findings. The estimated cost of project tools, including pocket handouts and flyers, was $16.00. The average cost of each event based on the interprofessional response team members and primary staff's average pay and time spent is approximately $50.00 for a therapeutic response and $83.00 for a behavioral emergency. At a minimum, each response comprised a clinical administrator, mental health rounding nurse, mental health technician rounder, campus police, public safety officer, primary nurse, and charge nurse.

Response team injury associated with therapeutic crisis intervention was marginal. There was no cost for staff injuries as all injuries were minimal, requiring no loss of workdays. The average cost of one workday lost relative to the average pay of the team members who respond to behavioral crises is $430.00. Preventing one staff injury supports the project initiative's cost efficiency and practical implications.

Implications of the Findings

The implications for project findings offer the opportunity to explore multiple frames of reference for the patient, nursing practice, and the healthcare system. Environmental safety, staff competence, and effective cost and resource management are beneficial to supporting the project's significance. Project implementation impacted quality patient care, safe practices, and health systems approaches that support the health and well-being of patient populations.

Implications for Patients

Medical patients with mental or behavioral health issues indirectly benefited from improved practices related to staff knowledge of policy and procedures. At each crisis intervention, the patient's safety is the priority of the clinical staff and response team members. During project implementation, staff were receptive to real-time learning opportunities. Access to educational resources facilitated a clear understanding of guidelines, appropriate response levels for therapeutic interventions, roles, and responsibilities. Such knowledge and awareness provided support for collaborative and comprehensive care. Standardized learning improved patient safety by promoting competency and using best practices when providing therapeutic care to patients with escalating behaviors.

Implications for Nursing Practice

Proficient knowledge, skill, and experience provide confidence to clinical staff and support healthy work environments by encouraging information sharing and team collaboration (Tommasini & Iennaco, 2022). An interdisciplinary care team approach is essential in providing exceptional health care delivery. Within a care team, members work collaboratively, respecting individual roles and input concerning patient care needs (Bachynsky, 2020). During project implementation, care team members collaborated to de-escalate and provide safe and effective

care when managing aggressive patient encounters. Through collaboration and engagement, inquiries about caring for mental health patients, available resources, and policies were discussed and addressed. Familiarity with policies, processes, resources, and educational offerings to promote competent care practices helped to support safe practices and avoid abuse or trauma to the patient and staff.

Impact on Healthcare System(s)

Environmental safety, improved adherence to the behavioral response to patients in crisis policy, and the opportunity to utilize real-time educational processes for identifying and managing escalating behaviors systemwide can benefit the organization. Benefits can be achieved by training staff to implement therapeutic interventions competently and confidently to prevent injuries and decrease level two call activations. Injury can be costly and negatively affect the organization through lost workdays, staffing shortages, overtime, and potential litigation costs (Parker et al., 2020). Decreasing level two calls indirectly reduced costs based on the average time spent at the event and the standard pay of each response team member. The cost reduction through the initiative’s processes supports the Quadruple Aim goals to lower costs, promote positive health outcomes, and improve the experience of the patient and healthcare worker (Bachynsky, 2020).

Sustainability

Only a few organizational changes will be needed to continue the project systemwide. Clinical administrators and mental health rounding nurses work throughout the healthcare system and are delegated team leads during response calls. Utilizing these key members of the behavioral response team to support the educational initiative is sustainable. The clinical administrator and mental health rounding nurse work to provide the needed resources to heighten

effective clinical practices and secure the safety of patients and staff members. The response team members are essential resources that will ensure educational opportunities continue.

Real-time educational tips through sheets and pocket handouts are also sustainable. This educational information can be disseminated in cost-effective ways. The cost of pocket handouts is low and can be utilized as needed. Tips sheets can be disseminated electronically by way of unit meetings and huddles through collaboration with unit leadership. As policies are revised and new educational offerings are established, tip sheets and pocket handouts can be updated and utilized progressively.

A component that was no longer available once the project was completed was the project leader. The next step in ensuring that the educational initiative continues is to designate a clinical administrator or mental health rounding nurse responsible for ensuring pocket handouts remain available and are utilized appropriately. Another suggestion would be enlisting unit champions to support the initiative, collaborating with response team members, and arranging routine updates to manage escalating behaviors. The selection of unit champions promotes team collaboration and support for new practices and motivates staff to participate in change processes and quality improvement initiatives (George et al., 2022).

Dissemination Plan

The project was presented to the site research committee by July 2023 and at the University College of Nursing on July 11, 2023. The DNP project paper was submitted to the University Scholarship Repository for public access. Local, state, and national groups such as the North Carolina Nurse Association (NCNA), the Academy of Medical-Surgical Nurses (AMSN), and the American Psychiatric Nurses Association (APNA) would benefit from the project's presentation. These organizations represent the nursing profession and are committed to

promoting exceptional practices through advocacy, scholarship, professional development, and collaboration (NCNA, 2023; AMSN, 2023; APNA, 2023). An abstract for the project presentation will be sent to each organization with the intent to present at annual conferences held by the nursing groups.

Section VI. Conclusion

Limitations and Facilitators

Limitations and facilitators discovered throughout project planning provided insights on implementation, evaluation, and process. Minor project gaps provided opportunities for improvement. Project facilitators contributed to supportive processes and fostered unanticipated accomplishments. Although challenged by barriers, anticipated goals were accomplished through stakeholder support.

Limitations

The limitations contributing to project gaps were survey participation, data collection processes, and project momentum. A planned project implementation goal was a significant survey participation percentage from the target group of nurses and nursing assistants. Percentages for the initial survey were below 30%. Low survey participation can be attributed to staffing workload, clinical hours, and lack of motivation (Booker et al., 2021). Another barrier to survey participation is the potential for new participants in post-survey responses due to new hires, completion of traveling contract assignments, or increased survey awareness.

Another planned goal was to utilize the communications call center, occupational health department, and clinical administration department to collect data on the number of response team activations, staff injuries, number of pocket handouts given, daily response calls, time spent at each crisis event, and appropriateness of activations according to policy. All data collectors sent reports and recorded data as planned. However, the timeliness and consistency in the data collection process needed to be improved, causing delays in analyzing data, project timeline adjustments, and unexpected time spent by the project lead collecting missing data. The project's lead should have considered requesting access to the technology for generating reports utilized

by the call center and occupational health department. If access had been granted, data collection delays might have been avoided.

Maintaining project momentum became a challenge throughout implementation as weekly process assessments at approximately week six revealed decreased handout dissemination and increased call activations. During this timeframe, there was an increase in behavioral health patients on medical units requiring multiple interventions and increased acuity. Most call activations were appropriate, and some were not. The project leader engaged clinical administrators, mental health rounding nurses, and unit leaders to revitalize the initiative's momentum. The stakeholders were encouraged to reengage staff and empower them to commit to the vision and purpose of the project. Leaders were requested to re-introduce the educational tip sheets and reinforce the content. Regardless of the limitations, the 12-week timeline provided sufficient opportunity to address project implementation goals by utilizing essential facilitators.

Facilitators

Key facilitators that supported project processes were the project site clinical research institute (CRI), site champion, leadership teams of participating units, clinical administrators, and mental health rounding nurses. The CRI approved the project initiative by reviewing the background, problem, aim, and goals provided by the project lead. The project site champion advised on proposed implementation plans, data collection processes, and analysis. Unit leadership teams encouraged staff participation and helped to maintain momentum by empowering professional growth and development. Clinical administrators and mental health rounding nurses were pivotal in providing real-time education when responding to a therapeutic crisis. The response team members were onsite to address project processes and any improvement needs.

Facilitators promoted camaraderie between all project team members and clinical staff during routine meetings and interactions at behavioral crisis intervention activations. The interactions required to facilitate educational opportunities allowed project team members to engage with staff and unit leadership. All team members worked together to achieve project goals. Shared goals and collaborative partnerships between interdisciplinary teams positively impacted the mission and values of the organization and the people served by building staff morale and promoting efficient processes.

Recommendations for Others

Recommendations for other organizations that may replicate this project are to consider long-term systemic impact relative to the effectiveness of resource management. An organization’s ability to ensure expenditures are within the financial planning, such as an established behavioral response team, information technology available to enhance processes, and team engagement, will determine resource management efficiency. A proficient team, functioning as a behavioral emergency response team, is trained in de-escalation techniques and prevention strategies for managing patients in behavioral crises. The interprofessional team is essential in ensuring the scalability and sustainability of the educational initiative.

Emergency response teams continue to be implemented throughout healthcare systems to decrease workplace violence and restraint use (Zicko et al., 2017). Response teams are expected to support staff in identifying escalating behaviors and managing aggressive patients. The team will effectively provide the appropriate education and information to care for medical patients with mental or behavioral issues. The organization must consider the cost of a response team if not established and the roles of members if a team is already in place to determine the potential efficiency of the organization to adapt to project educational requirements.

Additional recommendations to consider supporting sustainability include utilizing organizational resources such as classes and competency training. Orientation processes for new core staff, contract staff, and nurse travelers must also be examined. The versatility of educational modalities can be designed according to orientation processes. Different learning modalities are face-to-face training, video learning, simulation, virtual training, real-time competency coaching with a preceptor, or the utilization of multiple modalities (Dixon & Long, 2021).

The educational initiative must be customized according to the organization's information technology, work environments, policies, and processes. Consider technology available for storing, retrieving, and sending information relevant to recognizing escalating behaviors promptly, knowing de-escalation techniques, and activating correct response levels when caring for patients with mental or behavioral conditions. Consult departments that utilize technology, such as occupational health or call centers, to facilitate information gathering. Environmental safety for work benefits the patient, staff, and organization as established policies outline staff roles and responsibilities. Policies and processes relative to reporting guidelines, risk assessments, and available resources promote common awareness and accountability among staff (Spelten et al., 2020). Commonalities and a shared vision among team members facilitate team collaboration and engagement. Team engagement will need to be encouraged by leaders within the organization to empower staff and promote project goals and accomplishments.

In retrospect, different approaches for further exploration of the initiatives' effectiveness would have been to implement additional strategies to increase survey response rates, coordinate a more reliable way to gather data and enlist unit champions. The project lead used only one method for survey completion, which was via an electronic database. Other strategies to promote

survey participation are face-to-face meetings, completion of surveys using hard copies, or group-administered surveys (Booker et al., 2021). The data collection process could have been improved by ensuring that expected timelines were confirmed and agreed upon among data collectors and project team members. The selection of unit champions promotes team collaboration and support for new practices and motivates staff to participate in change processes and quality improvement initiatives (George et al., 2022).

Recommendations Further Study

Literature and project outcomes support the relevance of educating healthcare teams on caring for patients with mental or behavioral health conditions. Recognizing early signs of escalating behaviors and implementing de-escalating strategies can significantly reduce threatening behaviors, violence, verbal abuse, and physical assault. Expanding the educational initiative will provide the opportunity to positively impact effective clinical practices, quality care, and safe work environments systemwide. Future projects and research are recommended to explore the effectiveness of utilizing behavioral response team members in variable healthcare settings to educate non-mental health staff on therapeutic interventions to support the mental health population.

Final Thoughts

The therapeutic intervention initiative was implemented to enhance the knowledge, skill, and experience of staff caring for medical patients with mental or behavioral conditions. The project aim was to educate and prepare clinical staff to manage aggressive patient encounters competently. The behavioral health response team members, including clinical administrators and mental health rounding nurses, played an essential role in the project's success by engaging

clinical staff and providing real-time training, disseminating tip sheets and pocket handouts, and reinforcing policy.

The project successfully implemented an educational initiative that supports the recognition of early escalating behaviors, appropriate de-escalation techniques, and access to appropriate resources, including the activation of correct response levels. Project accomplishments and unintended positives contributed to a beneficial impact on quality care and safe clinical practices. Identified limitations and project facilitators provided insight regarding project improvement needs, sustainability, potential expansion, and recommendations for future study in behavioral crisis care management.

References

Academy of Medical-Surgical Nurses. (2023, May 12). *About AMSN.* https://www.amsn.org/about-amsn

American Psychiatric Nurses Association. (2023, May 11). *About APNA.* https://www.apna.org/about-apna/

Bachynsky, N. (2020). Implications for policy: The triple aim, quadruple aim, and interprofessional collaboration. *Nursing Forum, 55*(1), 54-64. https://doi.org/10.1111/nuf.12382

Booker, Q.S., Austin, J.D., & Balasubramanian, B.A. (2021). Survey strategies to increase participant response rates in primary care research studies. *Family Practice, 38*(5), 699-702. https://doi.org/10.1093/fampra/cmab070

Christensen, S.S., Lassche, M., Banks, D., Smith, G. & Inzunza, T.M. (2022). Reducing patient aggression through a nonviolent patient de-escalation program: A descriptive quality improvement process. *Worldviews on Evidence-Based Nursing, 19*(4), 297-305. https://doi.org/10.1111/wvn.12540

Collaborative Institutional Training Initiative (CITI) Program. (2022, May 29). *Group 2.Social / Behavioral Research Investigators and Key Personnel.* CITI Program. https://citiprogram.org

Deming, W.E. (1986). *Out of the crisis*. Massachusetts Institution of Technology, Center for Advanced Engineering Study.

Dixon, M., & Long, E.M. (2021). An educational intervention to decrease the number of emergency incidents of restraint and seclusion in a behavioral health unit. *The Journal of Continuing Education in Nursing, 53*(2), 70-76. https://tinyurl.com/yh2mxrbv

George, E.R., Sabin, L.L., Elliot, P.A., Wolf, J.A., Osani, M.C., Hong, J.M., & Berry, W.R. (2022). Examining health care champions: A mixed-methods study exploring self and peer perspectives of champions. *Implementation Research and Practice, 3*, 1-12. https://doi.org/10.1177/26334895221077880

Grove, S.K. & Gray, J.R. (Eds.). (2019*). Understanding nursing research: Building an evidence-based practice.* Elsevier.

Laverentz, D. M., & Kumm, S. (2017). Concept evaluation using the PDSA cycle for continuous quality improvement. *Nursing Education Perspectives, 38*(5), 288-290. https://tinyurl.com/yc6r2x8r

Lockhart, L. (2020). Behavioral health response teams. *Nursing Made Incredibly Easy!, 18*(6), 56. https://doi.org/10.1097/01.NME.0000717668.82980.0a

North Carolina Nurses Association (2023, May 12). *About NCNA*. https://ncnurses.org/about-ncna/about-ncna/

Parker, C.B., Calhoun, A., Wong, A.H., Davidson, L., & Dike, C. (2020). A call for behavioral emergency response teams in inpatient hospital settings. *American Medical Association Journal of Ethics, 22*(11), 956-964. https://doi.org/10.1001/amajethics.2020.956

Perez-Toribio, A., Moreno-Poyato, A.R., Lluch-Canut, T., Molina-Martinez, L., Bastidas-Salvado, A., Puig-Liobet, M., & Roldan-Merino, J.F. (2022). Relationship between nurses' use of verbal de-escalation and mechanical restraint in acute inpatient mental health care: A retrospective study. *International Journal of Mental Health Nursing, 31*(2), 339-347. https://doi.org/10.1111/inm.12961

Spelten, E., Thomas, B., O'Meara, P.F., Maguire, B.J., FitzGerald, D., & Begg, S.J. (2020). Organizational interventions for preventing and minimizing aggression directed toward healthcare workers by patients and patient advocates. *Cochrane Database of Systematic Reviews, 2020*(4), 1-74. https://doi.org/10.1002/14651858.CD012662.pub2

Spencer, S., Johnson, P., & Smith, I.C. (2018). De-escalation techniques for managing non-psychosis induced aggression in adults. *Cochrane Database of Systematic Reviews, 2018*(7), 1-43. https://doi.org/10.1002/14651858.CD012034.pub2

Tommasini, N.R., & Iennaco, J.D. (2022). A model program to manage behavioral emergencies and support nurses in the medical setting. *Nursing Administration Quarterly, 46*(1), 37-44. https://tinyurl.com/2b92ejbe

United States Department of Labor Occupational Safety and Health Administration. (n.d.). *Workplace violence*. https://www.osha.gov/workplace-violence

U.S. Bureau of Labor Statistics. (2020, April). *Injuries, illnesses, and fatalities: Workplace violence in healthcare 2018.* https://tinyurl.com/2p8wrmtd

U.S. Department of Health and Human Services. (2021, August 2). *Health People 2030 Framework*. https://health.gov/healthypeople/about/healthy-people-2030-framework

Zicko, C. J. M., Schroeder, L. R. A., Byers, C. W. S., Taylor, L. A. M., & Spence, C. D. L. (2017). Behavioral emergency response team: Implementation improves patient safety, staff safety, and staff collaboration. *Worldviews on Evidence-Based Nursing, 14*(5), 377–384. https://doi.org/10.1111/wvn.12225

Appendix A

Project Site Approval Letter

June 30, 2022

Dorrie Edgeston-Jones,

Congratulations! We are happy to inform you that your project entitled: *"Therapeutic Intervention: A Quality Improvement Initiative to Improve Early Recognition and Appropriate Response to Patients in Behavioral Escalation Crisis"* has been approved by the [redacted] APP & Medical Student Research Committee.

As your project is considered Quality Improvement under [redacted] guidelines, you do not need to submit to the [redacted] IRB.

As a condition of this approval, you are expected to present the results of your project to this committee. Please reach out to me at project completion and we will schedule this presentation.

We wish you good luck with your project and look forward to learning of your results.

Sincerely,

Appendix B

Initial Survey Questions

For Behavioral Health Response Team Members (CA, BHRN, Campus Police, MHT)

1. Please name 2-3 top barriers or concerns encountered when responding to behavioral health response calls.
2. How often do you feel calls were **not** warranted based on the behavioral response to patients in crises policy (i.e., patient responsive to verbal de-escalation, patient **not** presenting with uncontrollable threatening behavior, patient poses no risk of harm to self or others)?
    - Very often
    - Often
    - Sometimes
    - Rarely
    - Never

For Medical-Surgical Unit Staff (RN, NA, MA)

1. Please name 2-3 top barriers or concerns encountered when caring for patients with behavioral health issues.
2. Do you feel you have the appropriate resources to care for patients with behavioral health issues? If no, please comment
3. What is your job role?
    - RN
    - NA
    - MA
    - I choose not to answer

Appendix C

Pre- and Post-survey Questions for Clinical Staff

For Medical-Surgical Unit Staff (RN, NA, MA)

1. What is your job role?
   - RN
   - NA
   - MA
   - I choose not to answer
2. How long have you worked in your current role?
   - 0-2 years
   - 3-5 years
   - 6-10 years
   - Over 10 years
3. How often do you experience patients or visitors exhibiting aggressive or disruptive behaviors?
   - Daily
   - Weekly
   - Monthly
   - Not Often
   - Never
4. When dealing with patients or visitors demonstrating aggressive behaviors how do you report your concerns?
   - Notify Charge RN
   - Notify Nurse Manager
   - Notify BHRN
   - Notify CA
   - Notify Campus Police
   - Activate the Therapeutic or Behavioral Response Teams
   - I do not report
5. I feel confident in caring for patients in behavioral crisis, presenting with disruptive or threatening behaviors
   - Yes
   - No
6. I am confident in my ability to recognize early escalation signs that may result in aggressive, disruptive, or threatening behaviors
   - Yes
   - No
7. I have attended the Nonviolent Crisis Intervention Class
   - Yes
   - No
8. I have attended the Verbal De-escalation: Surviving Verbal Conflict Class
   - Yes
   - No
9. I have attended the Trauma Informed Care Class
   - Yes
   - No

Appendix D

Response Team Follow-up Survey

For Behavioral Health Response Team Members (CA, BHRN, Campus Police, MHT)

1. Behavioral response tip sheets/handouts are beneficial educational tools for clinical staff caring for patients with mental and behavioral health issues.
    - Yes
    - No

2. I have seen an increase in staff participation while attending behavioral and therapeutic call activations.
    - Yes
    - No

3. I have seen an increase in appropriate responses to escalating behavioral crises per the behavioral response to patients in crises policy (i.e., appropriate call activations, communication types, and de-escalation techniques).
    - Yes
    - No

4. Average time spent at a behavioral response activation.
    - 10-15 minutes
    - 15-20 minutes
    - 20-30 minutes
    - 45 minutes

5. Average time spent at therapeutic response activation.
    - 5-10 minutes
    - 10-15 minutes
    - 15-20 minutes
    - 30 minutes

Appendix E

Project Educational Tips

Caring for the Behavioral Health Patient

Just in Time Tips

Communicate to De-escalate!

Be mindful of non-verbal, para-verbal, and verbal communication

- **Nonverbal**: Body language- Respect personal space, actively listen, maintain a nonthreatening posture, and avoid communicating through touch
- **Para-verbal**: How we say what we say- Keep a steady, calm, and respectful tone
- **Verbal**: What we say- Keep messages short and clear

De-escalation Techniques

- There is always a reason for a change in behavior
  - Look for **triggers** and eliminate those triggers
  - Look for **patterns**- If patterns are identified, intervene, and assist the patient in developing positive coping strategies
  - Set **limits** early to promote consistency- Be clear and do not participate in power struggles (questioning authority, defending credibility, personal button pushing, discussing irrelevant issues or ultimatums)
  - Do not take the actions of the patient personally
  - Take every threat seriously!

Self-Awareness

- Know your own limitations and triggers to develop appropriate responses to escalating situations
- Remember your actions and reactions can influence patient behavior
- Always **self-reflect** and debrief after every event to improve individual de-escalation techniques, identify needs, and team approaches

When to Call for Additional Support

When de-escalation techniques are not enough, additional resources are available through the initiation of the Therapeutic Intervention Team (TIT/TRT), the Behavioral Emergency Response Team (BERT/BHRT), and the Campus Police Team

- When to activate the Therapeutic Intervention Team (Behavioral health rounding RN, MHT, clinician)
  - Acute changes in the patient's baseline mental status that result in **increased irritability or agitation**
  - The patient is not responsive to verbal de-escalation including, but not limited to, increased agitation or anxiety or verbal complaints increasing to demands
- When to activate the Behavioral Emergency Response Team (Clinical Administrator, Behavioral health rounding RN, MHT, clinician)
  - Acute changes in patient baseline mental status that results in **uncontrollable, threatening behavior**
  - The patient's condition may result in **harm** to themselves or to others
- When to activate a Security Alert (Campus Police, Clinical Administrator)
  - Immediate threat

To activate response teams 919-350-2222

Additional Resources:

- Administrative Policies: Restraint of Patient, and Elopement
- Environment of Care Policies/Plans
- Security Threat Response Plan
- Violence Prevention Program
- De-escalation Training Policy
- CRG Staff in Emergency Events - Staff Support for Coping

Educational Offerings:

- Nonviolent Crisis Intervention Program
- Verbal De-escalation: Surviving Verbal Conflict Class
- Trauma Informed Care

References:
Behavioral Response to Patients in Crisis Policy No. 1539
Crisis Prevention Institute (2020). *CPI Nonviolent Crisis Intervention Training* (2nd ed.)
DEJ 12/2022

Appendix F

Data Collection Spreadsheet for Staff Injuries and Response Team Activations

Biweekly	Number of Staff Injuries (Med-Surg/Tele, Campus Police, Constant Observers)	Number of Behavioral Emergency Activations	Number of Therapeutic Intervention Activations

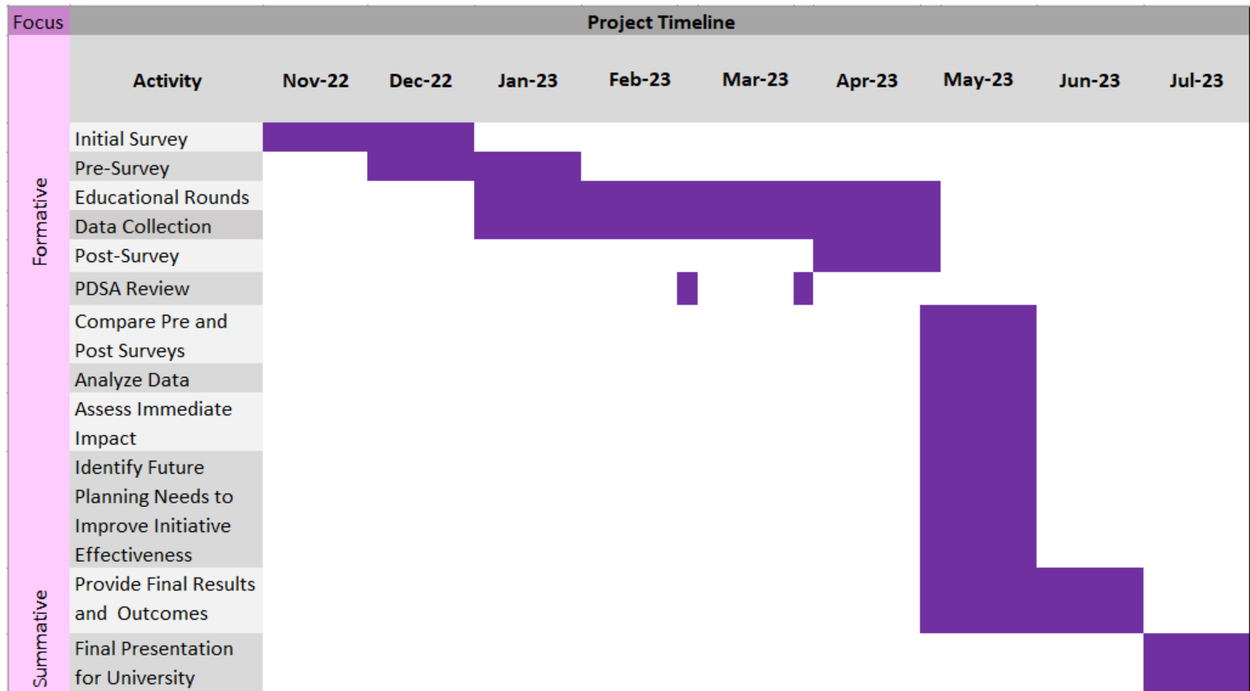
Appendix G

Daily Behavioral and Therapeutic Response Team Activation Data Collection Spreadsheet

Date	Behavioral Emergency Response Team Calls (BERT/BHRT)#	Approximate Time Spent	Do you feel the activation was warranted? *Circle y or n*	Therapeutic Intervention Team Calls (TRT/TIT)#	Approximate Time Spent	Do you feel the activation was warranted? *Circle y or n*	Number of handouts disseminated	Additional Comments
	7A: 7P:	7A: 7P:	Y / N Y / N	7A: 7P:	7A: 7P:	Y / N Y / N	7A: 7P:	
	7A: 7P:	7A: 7P:	Y / N	7A: 7P:	7A: 7P:	Y / N	7A: 7P:	
	7A: 7P:	7A: 7P:	Y / N	7A: 7P:	7A: 7P:	Y / N	7A: 7P:	
	7A: 7P:	7A: 7P:	Y / N	7A: 7P:	7A: 7P:	Y / N	7A: 7P:	
	7A: 7P:	7A: 7P:	Y / N	7A: 7P:	7A: 7P:	Y / N	7A: 7P:	
	7A: 7P:	7A: 7P:	Y / N	7A: 7P:	7A: 7P:	Y / N	7A: 7P:	
	7A: 7P:	7A: 7P:	Y / N	7A: 7P:	7A: 7P:	Y / N	7A: 7P:	
	7A: 7P:	7A: 7P:	Y / N	7A: 7P:	7A: 7P:	Y / N	7A: 7P:	
	7A: 7P:	7A: 7P:	Y / N	7A: 7P:	7A: 7P:	Y / N	7A: 7P:	
	7A: 7P:	7A: 7P:	Y / N	7A: 7P:	7A: 7P:	Y / N	7A: 7P:	
	7A: 7P:	7A: 7P:	Y / N	7A: 7P:	7A: 7P:	Y / N	7A: 7P:	
	7A: 7P:	7A: 7P:	Y / N	7A: 7P:	7A: 7P:	Y / N	7A: 7P:	
	7A: 7P:	7A: 7P:	Y / N	7A: 7P:	7A: 7P:	Y / N	7A: 7P:	

Appendix H

Project Timeline



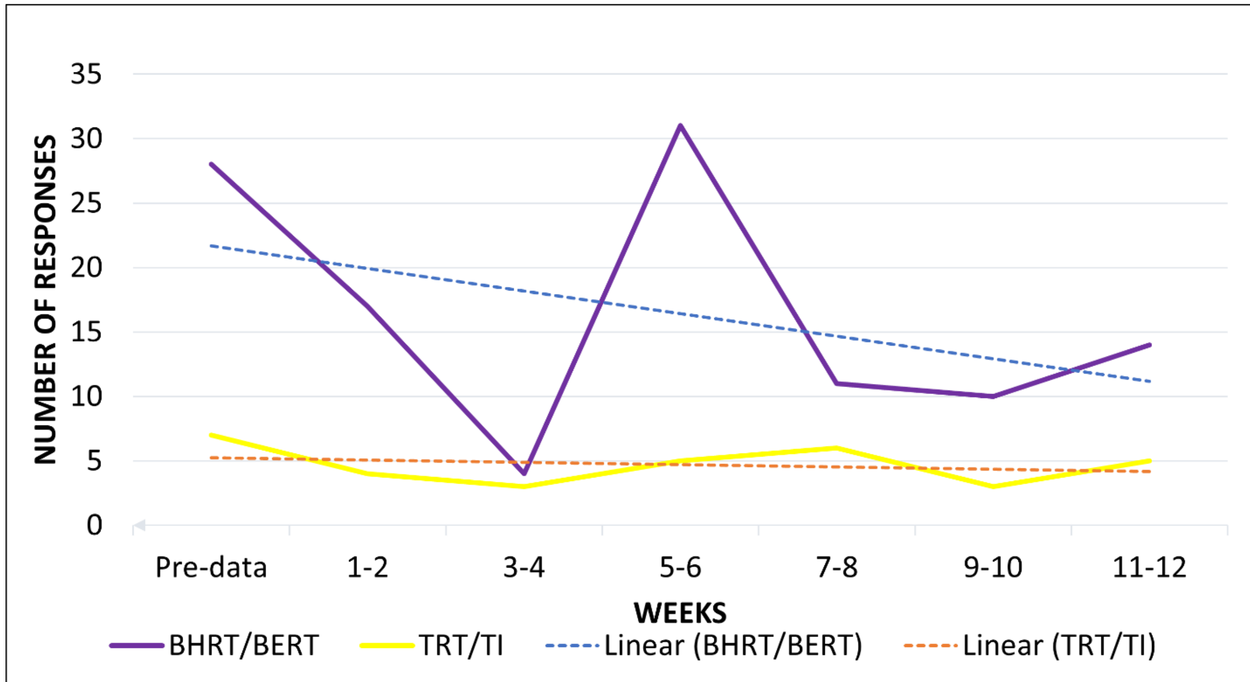
Appendix I

Pre- and Post-Survey Comparison Chart

		Pre-survey		Post-survey	
Number of respondents/Job role		131	**29%**	221	**37%**
	RN	83	**63%**	173	**78%**
	CNA/MA	47	**36%**	46	**21%**
	Choose not to answer	1	**0.76%**	2	**0.90%**
Work experience					
	0-2 Years	47	**36%**	70	**32%**
	3-5 Years	22	**17%**	56	**25%**
	6-10 Years	16	**12%**	33	**15%**
	Over 10 Years	46	**35%**	62	**28%**
How often staff experience patient/visitor with aggressive/disruptive behaviors					
	Daily	27	**21%**	48	**22%**
	Weekly	64	**49%**	92	**42%**
	Monthly	21	**16%**	55	**25%**
	Not Often	19	**15%**	24	**11%**
	Never	0	**0%**	2	**0.90%**
How staff report aggressive behaviors					
	Notify Charge RN	106	**81%**	171	**77%**
	Notify Nurse Manager	2	**2%**	5	**2%**
	Notify BH/MH RN	5	**4%**	4	**1.80%**
	Notify CA	0	**0%**	1	**0.45%**
	Notify Campus Police	0	**0%**	1	**0.45%**
	Activate Response Team	17	**13%**	31	**14%**
	Do not report	1	**0.76%**	8	**4%**
Feeling confident caring for patients in behavioral crises					
	Yes	61	**47%**	137	**62%**
	No	69	**53%**	84	**38%**
Confident recognizing early escalation					
	Yes	113	**86%**	207	**94%**
	No	18	**14%**	14	**6%**
Attended Nonviolent Crises Intervention Class					
	Yes	44	**34%**	63	**29%**
	No	87	**66%**	158	**71%**
Attended Verbal De-escalation Class					
	Yes	24	**18%**	41	**19%**
	No	107	**82%**	179	**81%**
Attended Trauma Informed Care Class					
	Yes	9	**7%**	19	**9%**
	No	122	**93%**	202	**91%**

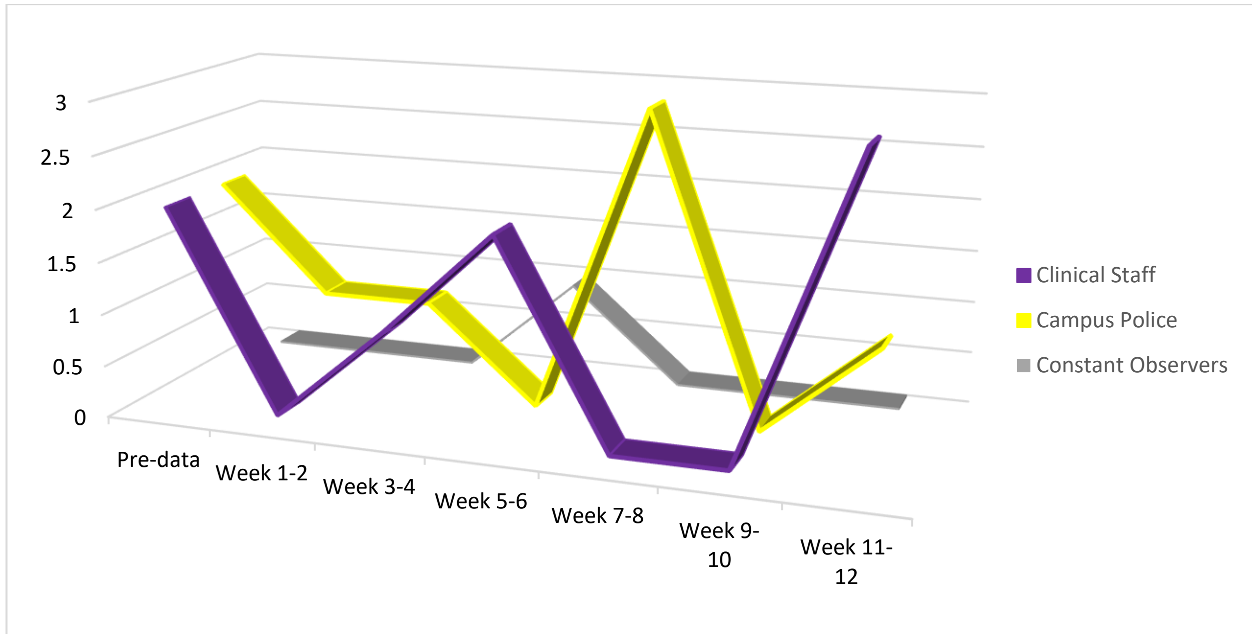
Appendix J

Response Activations



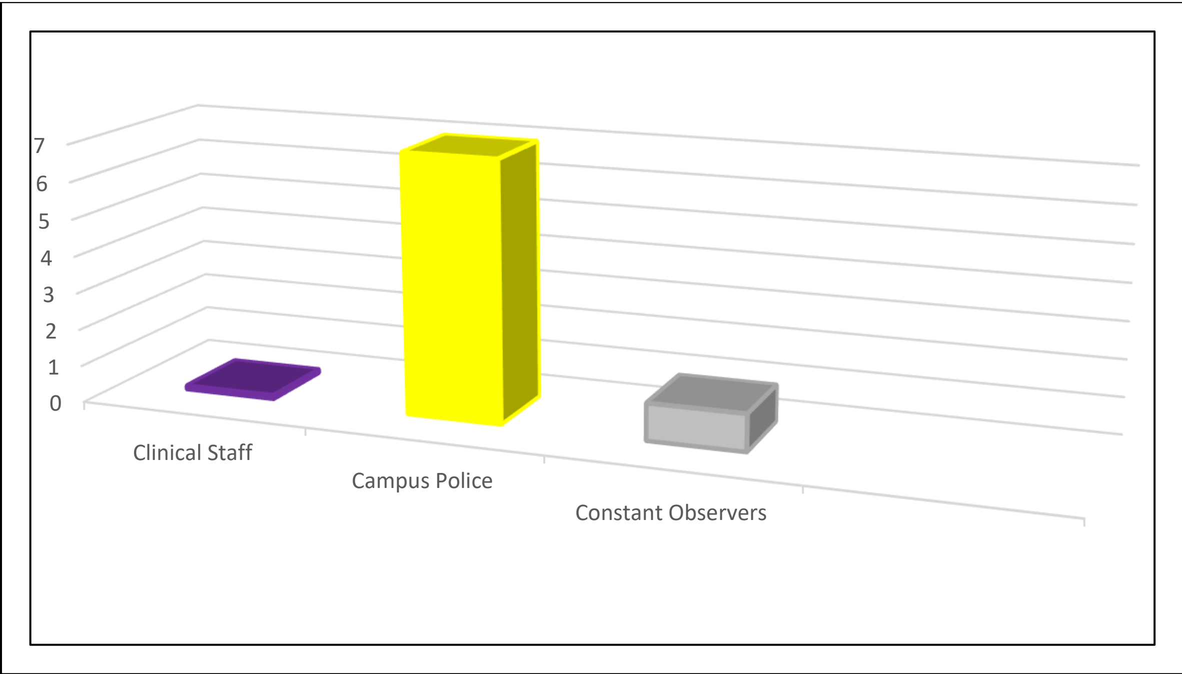
Appendix K

Staff Injuries



Appendix L

Injuries Related to Behavioral Crises



Appendix M

Itemized Budget

Category	Item		
Supplies	150 Pocket Handouts		$15.00
	60 Flyers		$1.20
	Total Cost		**$16.20**
Personnel	**Average Pay for Response Team Members**		
	Clinical Administrator		$53.77
	Mental Health Response Nurse		$42.10
	Police Officer		$28.38
	Public Safety Officer		$21.59
	Mental Health Technician		$22.94
	Total Pay		**$168.78**
	Average Pay for Staff Responders		
	Charge Nurse		$42.14
	Primary Nurse		$40.14
	Total Pay		**$82.28**
Time		**Average Time Spent**	**Average Cost Per Event**
	Behavioral Emergency Response	0.33	**$82.85**
	Therapeutic Response	0.25	**$50.27**