

Reducing Workplace Violence with the Use of a Behavioral Emergency Response Team

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Notes from the Author

The author would like to thank my project site champion for her unwavering support and dedication to this project and process to ensure it was successful. Thank you to the project site staff, especially those on the BERT Task Force that were dedicated to ensuring this project was successful and our patients and staff were safe. To my faculty advisor, thank you for your constructive feedback and suggestions that helped improved this manuscript with each edit.

Abstract

The objective of this project was to create a Behavioral Emergency Response Team (BERT) to ultimately reduce the number of workplace violence (WPV) events and associated teammate injuries by training individuals that can verbally de-escalate potentially violent situations from occurring identified clinical triggers. Workplace violence has continued to increase over the years, especially post-pandemic. It puts hospital staff at an increased safety risk and has caused burnout among healthcare workers. This evidence-based project was conducted reviewing all BERT responses and WPV events during January-April 2024 compared to pre-BERT data for the same four months in 2023. Four nursing departments in a small, rural, community hospital served as pilot units for BERT. Those units were the Emergency Department (ED), Intensive Care Unit (ICU), and two Medical Surgical Units (MSU). During the pilot phase, there were 33 BERT responses and 39 WPV events. Injuries towards teammates during the pilot phase were 19. While it was predicted the number of WPV events and injuries would decrease with the initiation of a BERT, the data did not reveal that at the project site. In fact, WPV events and injuries went up from 2023 data. While the results from the project did not show a decrease in the number of WPV events or number of injuries associated with WPV, it could be due to an increased awareness of reporting violent behaviors. Also, there was a particularly violent patient during the pilot phase that accounted for 15 WPV events and 11 teammate injuries.

Keywords: workplace violence; behavioral emergency response team; behavioral response team; and BERT.

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Section I. Introduction

Background

Workplace violence (WPV) is “any act or threat of physical violence, harassment, intimidation, or other threatening disruptive behavior that occurs at the work site” (Occupational Safety and Health Administration, 2023, para. 2). There is a wide range of reported WPV that occurs in the healthcare sector from verbal abuse to physical assaults (Al-Qadi, 2021). The COVID-19 pandemic only amplified WPV events and has increased the number of events and injuries occurring each year (American Society for Health Care Risk Management, 2023). Reportedly, verbal threats to nurses have increased from 43% before the pandemic to 67% during the pandemic (Croke, 2022). As many as 44% of nurses state they have been physically assaulted since the pandemic compared to pre-pandemic rates being closer to 24%. With the heightened attention to WPV and the overwhelming need to address this global concern, many agencies have published white papers and standards related to WPV prevention and policies to mitigate further WPV events (American Society for Health Care Risk Management, 2023). Without addressing WPV, healthcare workers will continue to be victims of abuse whether it is verbal abuse, bullying, sexual harassment, or physical assault (Al-Qadi, 2021). Workplace violence is a global problem, especially in healthcare. In the U.S, healthcare workers are five times more likely to be involved in a workplace violence event than non-healthcare workers (Copeland & Arnold, 2021). Nurses go into their field of study to help people, yet up to 67% of nurses internationally have been victims of WPV (Havaei, 2021).

Organizational Needs Statement

Workplace violence has been increasing nationally over the last several years since the start of the COVID-19 pandemic. The same phenomenon has held true at this community, non-

profit hospital in the piedmont of North Carolina. Due to the increase in WPV events, many healthcare workers are experiencing injuries, burnout, and have even left their jobs as a result (Stafford et al., 2022). In 2019 at the project site, there were 53 WPV events (J. Booth, personal communication, July 6, 2023). By 2022, there were 70 WPV events, which is a 32% increase. Along with the increase in WPV events is the risk for injuries to patients and teammates. In 2019, there were 15 assaults on healthcare workers during WPV events. In 2022, there were 27 assaults on healthcare workers during WPV events, which is an 80% increase.

Decreasing the number of WPV events at the targeted organization is important for the safety of patients, visitors, and teammates (American Society for Health Care Risk Management, 2023). Nationally, as many as 25% of nurses have reported being physically abused by patients and upwards of 50% have been verbally abused; although, WPV is vastly under-reported (Al-Qadi, 2021). Seventy six percent of the more than 20,000 workers that reported workplace violence were in healthcare or social work fields (Centers for Disease Control and Prevention [CDC], 2022).

To address workplace violence and 500+ other health needs, Healthy People 2030 is an initiative based out of the U.S. Department of Health and Human Services (USDHHS; 2023a). Dating back to 1980, each decade there is a set of goals established to improve quality of life through measurable objectives related to health conditions, health behaviors, populations, settings and systems, and social determinants of health (USDHHS, 2023b). Reducing workplace violence addresses outcomes associated with the element of violence prevention. There is a specific objective to reduce work-related assaults in Healthy People 2030.

The Institute for Healthcare Improvement (IHI) established the Triple Aim for populations in 2007 (Baum, 2021). There are three key elements to the Triple Aim: population

health, per capita cost, and experience of care (IHI, 2023). Focusing on reduction of WPV specifically for the mental health patient population can be accomplished by introducing programs and initiatives that reduce the possibility of a WPV event from occurring by managing the underlying mental health disease with medication and therapy. Addressing per capita costs can be accomplished by reducing costs associated with extended stays in the acute care setting related to additional therapeutic medication regimen and treatments delivered to address behaviors causing WPV. Reducing workplace violence also addresses the aim by enhancing patient experiences when mitigating circumstances that could cause dissatisfaction that often escalates into a WPV event. As the Triple Aim expanded into the Quadruple Aim in 2014, an additional element of staff well-being was added (Grant et al., 2020). Improving the work life of nurses and providers that no longer are recipients of WPV events and injuries is vital to ensure they can care for patients mentally and physically without fear of injury and without symptoms of burnout.

Problem Statement

Since 2019, there has been a 32% increase in WPV events noted at the project site both in the inpatient units and in the Emergency Department (ED) collectively. Assaults on teammates have also increased during the same timeframe by 80%. This increase in WPV events and assaults is causing risk of harm to patients, teammates, and support staff.

Purpose Statement

The purpose of this evidence-based project was to create a Behavioral Emergency Response Team (BERT), which is a team of trained individuals that can respond to an identified patient to assist in de-escalation techniques to prevent a WPV situation from occurring. Using clinical triggers and behavior checklists, teammates will be able to identify patients that would

benefit from a BERT response before a situation escalates to a verbal or physical situation (Dahnke & Mulkey, 2021). By calling a BERT, it will get the right teammates involved early to de-escalate a situation, make recommendations based on protocols for interventions, and decrease WPV events and injuries.

Utilizing a BERT has also been shown to improve the confidence of nurses (Dahnke & Mulkey, 2021). Not all nurses are comfortable taking care of mental health patients or patients that are exhibiting aggressive behaviors. Knowing they have experts in a patient population, specifically trained in de-escalation techniques they can call upon gives them assurance to care for patients without fear of being put in situations alone to deal with difficult patients. The concept of a BERT is not new (Parker et al., 2020). Based off a rapid response team (RRT) model, BERT is designed as a response team to a behavioral health emergency. The purpose of an RRT is to respond and intervene before a patient escalates and goes into cardiac arrest. Similarly, the intent of a BERT is to respond and de-escalate the situation before it gets to a WPV event.

Section II. Evidence

Literature Review

A systematic review was performed on the available information related to BERTs to determine any defined best practices with implementing a BERT, what clinical triggers could be utilized when calling a BERT, and what team members should make up a BERT. The reviewer used search words including “behavioral emergency response team”, “behavioral response team”, and “BERT”. The review focused on studies that were published from 2019-2023. The literature review showed BERT implementation as a positive outcome in the articles reviewed (Afriyie-Boateng et al., 2019; Bruccoli, 2023; Pierre et al., 2023).

Inclusion Criteria

Search methods included full text online, scholarly, and peer reviewed articles. There was a total of 271 results within that search criteria. The reviewer used Ovid, ProQuest, Sage Journals, Medline Complete, and Elsevier Science Direct databases which narrowed the articles down to 218 results. Articles were considered eligible for inclusion if they had been published within the last five years. By utilizing this search criteria, it reduced the number of articles to 105.

Exclusion Criteria

To keep the data relevant to the implementation project site, there were some exclusion criteria established. Any article that was focused on the pediatric patient population was excluded. Keywords that were utilized to remove in the article selections were “pediatric”, “child”, and “adolescent”. The project site is a community hospital that does not have a pediatric unit. The initiation of the BERT would be on the Medical-Surgical Units (MSU), an Intensive

Care Unit (ICU) and the ED. By implementing the exclusion criteria, it reduced the number of articles to 86.

Data Abstraction

Of the 86 remaining articles, the reviewer eliminated 82 based on the setting of the study being outside the acute care space, and outside the United States. Additionally, studies were eliminated that did not address the needed information pertinent for this quality improvement project of: clinical triggers to call BERT, BERT members, and interventions suggested for BERT. Some of the 86 articles were not studies, but literature reviews of previous works. The reviewer noted from the final four articles the design, sample size, setting, outcomes, and limitations of each study. Also, it was noted with each study how the BERT was implemented and team members that comprised the BERT, and lessons learned, if noted. Levels of evidence for each article were noted and ranged from Level V to Level VI (see Appendix A).

Current State of Knowledge

There are several best practices in literature that combat workplace violence. Most of the literature focuses on prevention and mitigating risks of workplace violence (American Hospital Association [AHA], 2023). Nursing staff should report any event that is a threat of violence or has a risk of being a threat of violence. By encouraging staff to report early and often, it gives hospitals data needed to mitigate threats. Prevention programs should be focused on reducing or eliminating WPV (Occupational Safety and Health Administration [OSHA], 2016). The programs should have teammate involvement, an analysis of the facility's data related to WPV, prevention and safety education, and a WPV program evaluation.

Current Approaches to Solving Population Problem(s)

Simulation training among nursing staff with real life scenarios is one established best practice (Ming et al., 2019). By practicing how to react to hostile, aggressive patients, nursing staff feel more confident in dealing with patients with behavioral issues. This allows staff to feel more prepared in response to violent patients and their actions.

Many organizations are now establishing a zero-tolerance policy for WPV on staff such as the American Organization of Nurse Executives (AONL) and the Emergency Nurses Association (ENA) (Copeland, 2020). They established a joint statement in 2014 claiming a zero-tolerance policy related to workplace violence. The next year, The American Nurses Association (ANA) followed suit and published “a *Position Statement on Incivility, Bullying, and Workplace Violence* declaring that the nursing profession will no longer tolerate violence of any kind from any source” (Copeland, 2020, p. E54).

Establishing a violence prevention program to include a framework that is inclusive of best practices from key regulatory agencies has been established by the American Society for Health Care Risk Management (ASHCRM; 2023). This toolkit notes AONL and ENA guiding principles, as well as recommendations from Centers for Medicare & Medicaid Services (CMS). OSHA standards for WPV are also addressed in the toolkit. The toolkit is divided into categories of readiness for leadership, proactive prevention, and reactive responses to events.

Evidence to Support the Intervention

Based on the project site assessment, project site champion interview, and identification of resources, the development of a BERT was chosen as the best intervention for the project site. The project site is a community-based hospital but does have an onsite behavioral health unit with access to behavioral health nurses 24/7 and a psychiatrist (P. Mook, personal communication, August 2, 2023). With the implementation of a BERT, having the expertise of

nurses and a physician that are trained in caring for behavioral health patients is important (Dahnke & Mulkey, 2021). They have the skills and training to de-escalate this patient population and are all Crisis Prevention & Intervention (CPI) trained. At the project site, the BERT consisted of a behavioral health nurse, a security guard, and an Administrative Supervisor.

Rapid response teams (RRT) have been utilized since 2004 with medical emergencies with the recommendations that came out of the 100,000 Lives Campaign (Parker et al., 2020). The intent behind an RRT is to proactively intervene with a patient that is having a medical emergency before they go into cardiac arrest (Afriyie-Boateng et al., 2019). The responding team responds to the patient and can give interventions to the patient before the patient decompensates. The literature shows that a BERT can be created to respond similarly as an early response team before a behavioral emergency when a patient escalates to the point of causing a workplace violence event. BERTs are being utilized in acute care hospitals to support frontline nursing staff with interventions to de-escalate patients, reduce use of restraints, and increase perception of safety of staff caring for this patient population (Dahnke & Mulkey, 2021).

Evidence-based Practice Framework

This project implemented a framework that utilized a Plan-Do-Study-Act (PDSA) cycle. First described as a 14-point change management process by Dr. Edward Deming in 1986, it eventually became known as the PDSA Cycle (Taylor et al., 2014). The intent of the PDSA cycle is to have a continuous process improvement methodology with structure. The first step of the cycle is “Plan”. During this step, the purpose is to identify or establish the goal for the project. Step two of the cycle is “Do”. In this part of the cycle, it is the implementation phase of the project, or the testing phase. Step three of the cycle is “Study”. During this portion of the cycle, the purpose is to monitor any outcomes from the intervention that was implemented from the

“Do” step. During the “Study” portion of the cycle, an evaluation will determine if the “Do” step was successful or not and compare the data collected with what was predicted to happen. The next step would be to continue to “Act”, which is step four. If determined the “Do” was not successful based on the “Study” cycle, the “Act” would be changed during the implementation cycle by changing the goal or changing the method and starting the PDSA cycle all over again.

Ethical Consideration & Protection of Human Subjects

There are no ethical considerations for this project. The intervention of establishing a BERT is equal and equitable to everyone in the target population, which is all nursing staff on the MSUs, ICU, and ED. The BERT was available 24/7 so no one in the target population was taken advantage of during project implementation. Educational sessions and an education flyer were made available to all nursing staff on the target units, as well as hospital-wide education on when and how to call BERT (see Appendix B). A specific information sheet was created for departments that would be responding as the BERT members, as well as those units that would be calling BERTs including Behavioral Health Registered Nurses (RN), Security, Administrative Supervisors, and Primary RNs. The intent behind this information sheet was to define the roles and responsibilities of each discipline on the BERT (see Appendix C).

The formal approval process for the evidence-based project included completing required CITI modules for East Carolina University (ECU). In addition to ECU CITI modules, there were required CITI modules required for the project site Institutional Review Board (IRB) including courses for biomedical investigators and clinical research study staff modules (K. Shaffer, personal communication, September 12, 2023). The project site IRB process required ECU IRB approval prior to applying for system IRB approval. Approval from ECU IRB was obtained September 14, 2023 (see Appendix D). Submission of a letter of support from the leader of the

clinical area where the project would take place, student's resume, and IRB protocol application were all required to be submitted for review for project site IRB approval. Project site IRB application was submitted October 19, 2023. Project site IRB approval for a non-human subject research quality improvement project was received on October 26, 2023 (see Appendix E & F).

Section III. Project Design

Project Site and Population

The project site is a small, community, rural hospital in the Piedmont of North Carolina within a large health system comprised of more than 60 hospitals across several states (B. Freeman, personal communication, July 10, 2023). It is the only hospital within the county served. The average daily census for this facility is 46 patients. It has a 24 bed Emergency Department (ED), two 35 bed medical-surgical units (MSU), a 17 bed Labor & Delivery and Post-Partum Unit, a 12 bed Behavioral Health Unit, and a ten bed Intensive Care Unit (ICU).

Description of the Setting

The setting of this quality improvement project was on the two MSUs, ICU, and the Emergency Department at a 109 licensed bed community hospital in Piedmont of North Carolina. Due to the population of patients on these units and the historic numbers of workplace violence events, the decision was made to focus the project on these units with the implementation of the BERT. After the initial go-live in these departments, the BERT will be rolled out facility wide.

Description of the Population

The population of this quality improvement project are the staff on the pilot units that would be initiating a BERT. On the two MSUs, it is a shared staff consisting of approximately 85 people including RNs, Licensed Practical Nurses (LPN), Nursing Assistants, and Patient Safety Attendants. The ICU staff is 25 people consisting of RNs and Nursing Assistants. In the ED, there are 60 people comprised of RNs, LPNs, Paramedics, Nursing Assistants, and Psychiatric Technicians. In all these pilot units, anyone on staff can initiate a BERT call. Each

department also has providers, either Physicians, Physician Assistants, or Nurse Practitioners, that care for patients in that area. They will also be able to initiate a BERT.

Project Team

The Project Manager (PM) established a BERT Task Force that was comprised of key stakeholders from various departments. The Task Force met twice a week. The purpose of the Task Force is to review 100% BERT calls for trends in calls, opportunities for improvement in the process, and suggestions to improve BERT responses. Each BERT call was reviewed by the department leader in a case scenario format. Members of the Task Force asked questions such as “Were there identifiable triggers that escalated the patient that we can learn from in the future?”, “Did the staff feel comfortable calling the BERT?”, and “Were there opportunities for improvement identified from the call we can implement moving forward?”. Members of the BERT Task Force included the Chief Nursing Officer (CNO), Directors of Nursing, Patient Safety Officer, Security, Emergency Management, Administrative Supervisor, Nurse Managers from Behavioral Health, MSU, ICU, and ED.

Project Goals and Outcome Measures

The goal of the project was to develop a BERT program within the target organization. The PM developed an educational flyer on what is a BERT, how to initiate a BERT, and in what instances to call a BERT (see Appendix B). This educational flyer was distributed to the entire hospital for situational awareness. The PM went to department huddles on the MSU, ICU, and ED to have more direct conversations with teammates on these pilot units on how to initiate the BERT. The PM developed an additional educational flyer and went to department huddles for Behavioral Health, Security, and Administrative Supervisors to explain their role as members of the BERT and expectations when responding to a BERT (see Appendix C).

Inclusion criteria for the BERT would be any event where a patient is identified as escalating in behavior on the MSUs, ICU, and ED prior to the point of getting physically abusive. Exclusion criteria for the BERT would be any event where it occurs outside the MSU, ICU, or ED, or any BERT that is called as a false alarm. Once the BERT was created and a go-live date of January 1, 2024 was set, BERT team members were instructed to respond to the location of the call and get briefed on the situation. From there, the Behavioral Health RN, as the team leader, would determine how to approach the encounter, whether individually or as a team, depending on the needs of the individual situation. The team lead would devise the best course of action. If verbal de-escalation is not sufficient, the patient's primary RN would contact the attending physician for recommendations on treatments or medications.

Description of the Methods and Measurement

With the implementation of BERT, there were three outcome measures that were measured. The first outcome measure was to decrease the number of workplace violence events, which are tracked through Care Event reporting (Incident Reporting), from a baseline of 18 for January through April 2023 by 10% during the implementation phase (January through April 2024). The second outcome measure was to decrease the number of teammate assaults, which are tracked through Report of Occupational Injury (ROI) Reporting, from a baseline of 14 for January through April 2023 by 10% during the implementation phase (January through April 2024). The third outcome measure was to increase the number of BERT calls, which was tracked through hospital Care Event reporting, from a baseline of zero from January through April 2023 to five BERT calls during the implementation phase (January through April 2024). BERT was a new program for the project site. The actual number of BERT calls can vary based on how quickly the process of calling a BERT is adopted into practice. Anticipation of low BERT calls

to begin with was expected until the team became familiar with triggers and comfortable to call BERTs early before actual WPV events occurred. Results were analyzed initially using descriptive statistics and comparison between pre-implementation data, post-implementation data, and associated data were performed.

Discussion of the Data Collection Process

Data from BERT calls were collected through incident reports, called Care Events at the project site. Every time a BERT was initiated, the primary nurse was instructed by the BERT team lead to complete an incident report for tracking purposes. Any injuries that may have occurred during the BERT were captured through completion of a ROI form. A copy of all Care Events related to BERTs were sent to the PM and were reviewed at the BERT Task Force meetings twice a week.

Implementation Plan

The implementation plan was set in two phases: pre-data collection phase and during data collection phase. During the pre-data collection phase, the reviewer assembled the BERT Task Force, created the educational flyers, educated the pilot departments, educated the BERT members, provided facility-wide situational awareness of BERT, and conducted mock BERT codes. During the data collection phase, all BERTs were reviewed twice a week, feedback from the BERT calls were reviewed, utilizing the PDSA model, and changes were made to the process as appropriate.

The IRB approval process was completed and obtained October 26, 2023 (see Appendices D, E, & F). In November 2023, the PM convened a BERT Task Force. The intent behind this was to begin the planning phase of implementation for education for MSU, ICU, and ED, as well as to plan education for those teammates that would be responding to the BERT. It

was imperative to do early and often education for the BERT members for them to feel comfortable with responding to a new emergency response team and ensure they understood their roles. Separate meetings were set up with Behavioral Health, Administrative Supervisors, and Security for this reason. Once they received education, any WPV event that happened in November or December, they were invited to respond to get familiar with where various units were outside their home department and comfortable with staff they would be interacting with in the future. Mock BERT calls were scheduled in December 2023 on days, nights, and weekends for the BERT members to practice scenarios that may happen once BERT was live. Members of the BERT Task Force were invited to be a part of the mock BERT calls. Each mock BERT call was discussed at the BERT Task Force in the same format as BERT calls were upon go-live. Go-live of BERT began January 1, 2024. Data collection took place from January through April 2024 (see Appendix G).

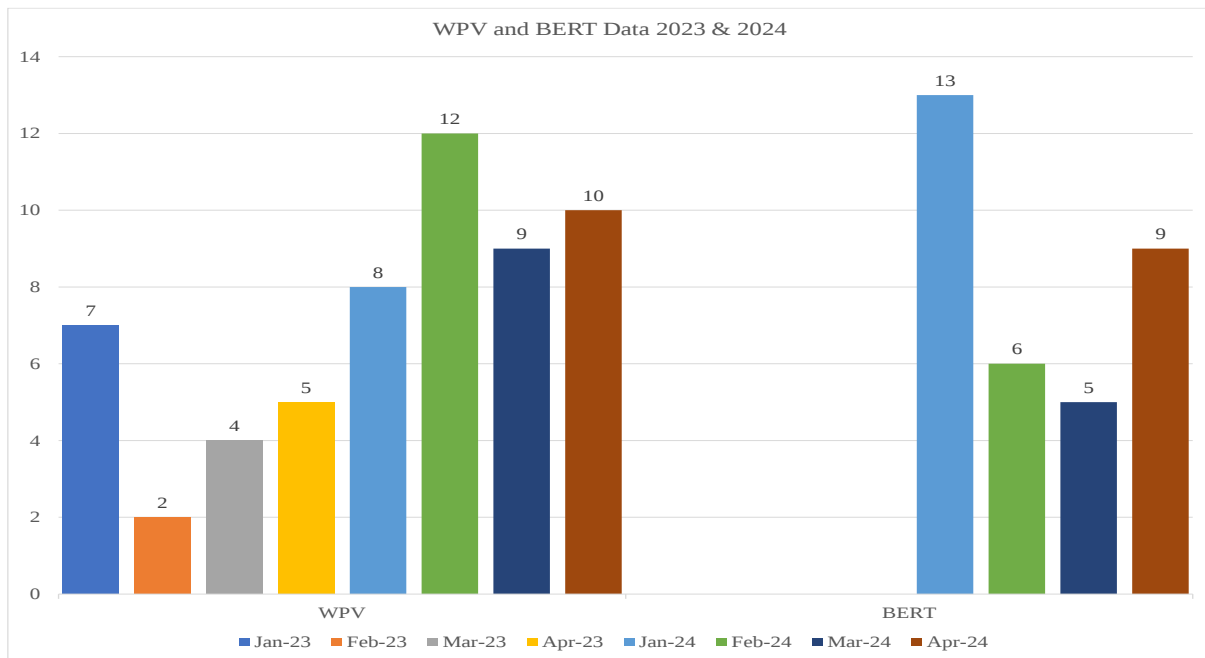
Section IV. Results and Findings

Results

During the pilot phase, January-April 2024, there were a total of 39 WPV events (see Figure 1). Compared to the same four months in 2023, there were 18 WPV events which is a 117% increase in WPV events called. During this same timeframe of the pilot phase there were 19 teammate injuries related to WPV events reported. During the same four months of 2023, there were 14 injuries, which is a 36% increase. While there were no BERTs in 2023 since there was no established program, during the pilot phase of the program, there were a total of 33 BERTs during January-April 2024.

Figure 1

WPV and BERT Data for 2023 & 2024



Note. The left side of the bar graph depicts WPV events by month Jan-Apr 2023, as the baseline data and Jan-Apr 2024, as the pilot phase. On the right side of the bar graph are BERT events, which did not start until Jan 2024.

Discussion of Major Findings

The pilot proved positive for assisting teammates dealing with escalating patients that are becoming aggressive. Anecdotal comments received from the debriefs from bedside nurses included: “The BERT helps me feel safer with these patients.”, “I love the teamwork between nursing and security now. “I know they have my back.”, and “It is great having the doctors readily available to order medications, if needed.”.

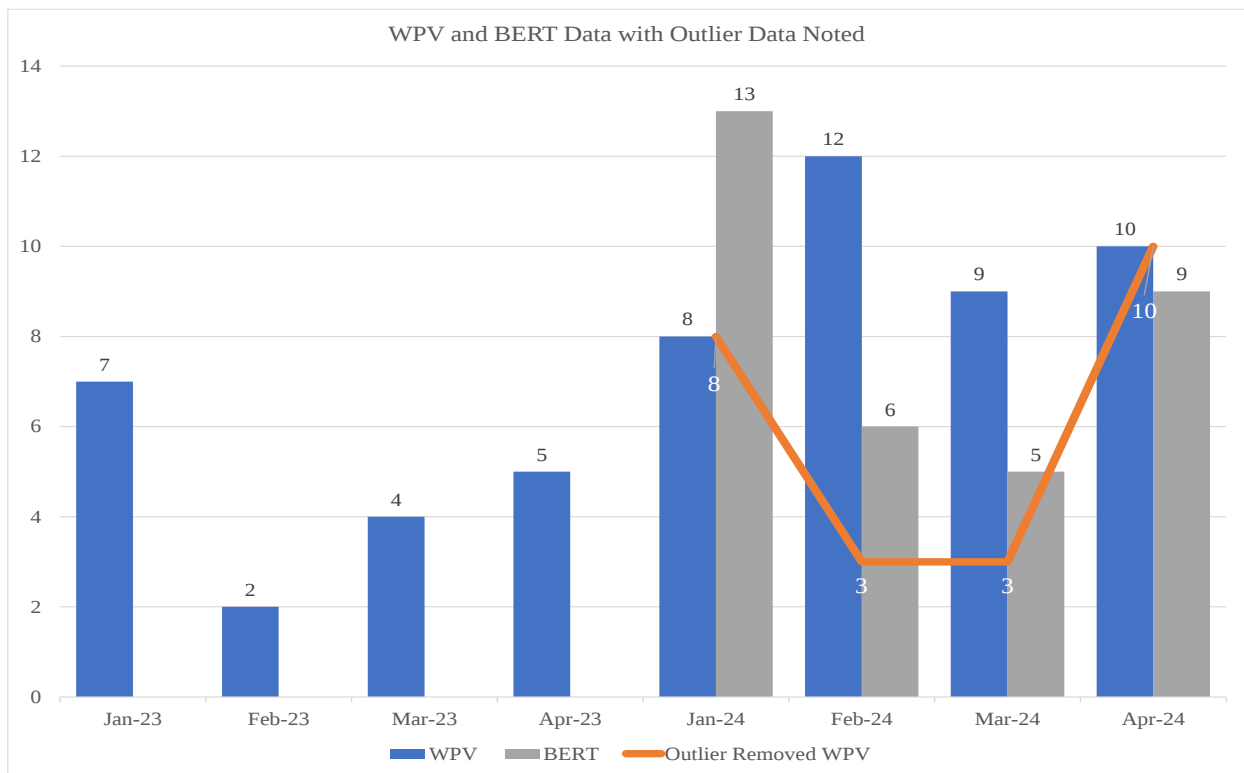
After reviewing the data collected during the pilot phase on the pilot units, there were more WPV events than anticipated. The expected outcome of the project was to see a ten percent decrease in WPV events during the pilot phase from the January-March 2023 baseline rate of 18. The literature supports implementing a BERT will decrease WPV events (Dahnke & Mulkey, 2021). There was also an expected ten percent decrease in injuries based on the literature (Parker et al., 2020). However, during the pilot phase, there were more injuries than the baseline timeframe of January-April 2023. The literature shows that implementing a BERT and responding early to verbally de-escalate patients reduces the likelihood of patients becoming physically violent.

After further review of each individual case, there was one patient that was extremely aggressive that contributed to 15 WPV events and 11 teammate injuries over a three-week period that crossed over the months of February and March 2024. If you take out the outlier data of the one particularly physically aggressive patient that ultimately had to have a paid police presence with her in the acute care setting around the clock due to her behaviors, the data aligns much more with what the literature supports. By removing the outlier from the data, the WPV events during the pilot period showed a 33% increase from 2023 data (see Figure 2). Teammate injuries

related to WPV events aligned with the literature and showed a decrease of 33% from 2023 data when removing the outlier data (see Figure 3).

Figure 2

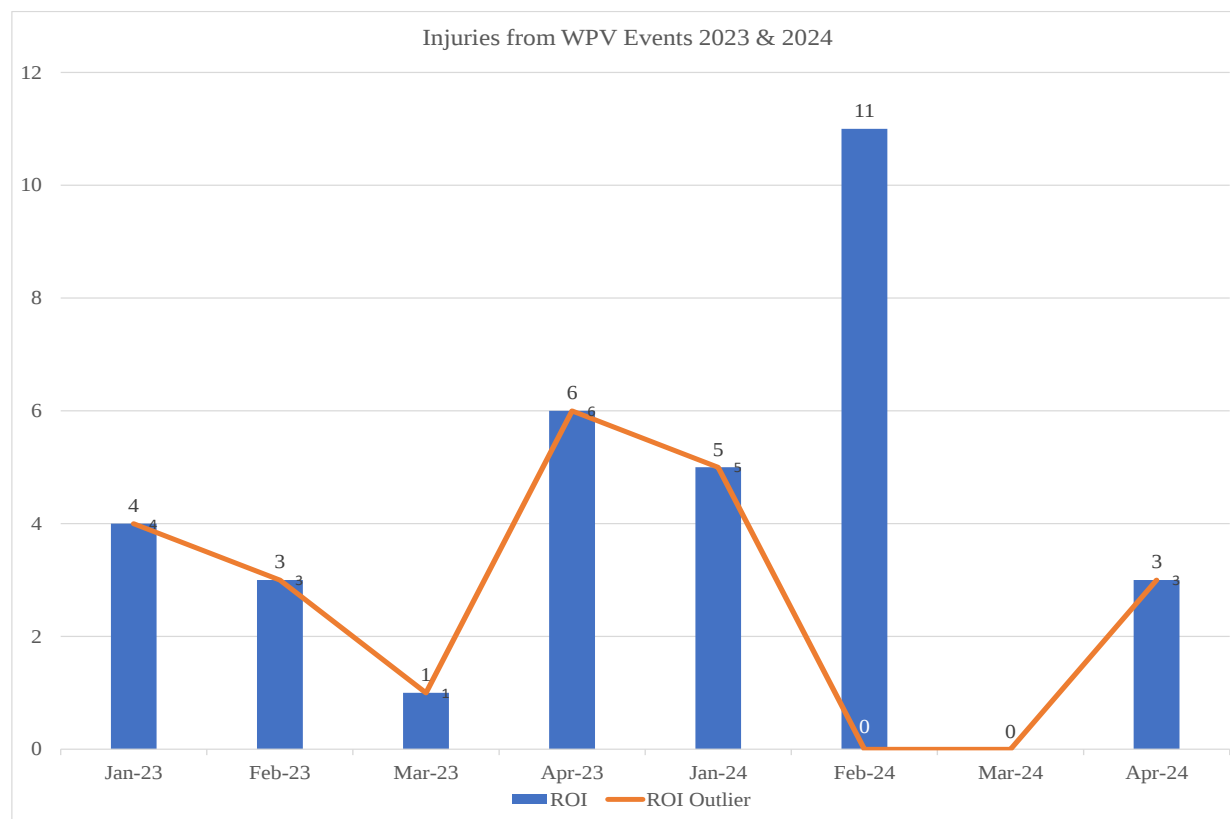
WPV and BERT Data with Outlier Data Removed and Noted with Orange Line Graph



Note. This bar graph depicts both WPV events and BERT events Jan-Apr 2023 and Jan-Apr 2024. The orange line notes the number of WPV events that would have been recorded for the months if one particular patient (outlier) was removed from the data.

Figure 3

Injuries from WPV Events in 2023 & 2024, with Outlier Data Removed and Noted with Orange Line Graph



Note. This bar graph shows injuries from WPV events during Jan-Apr 2023 and Jan-Apr 2024. The orange line also shows the number of injuries related to WPV events with the one particular patient that was violent in February 2024 (outlier) removed from the data. For February 2024 with the outlier removed, there would have been zero injuries instead of 11.

In addition to the aforementioned data, the PM also collected data regarding the time-of-day BERTs were called (see Appendix H). Based on the data, the most frequent time of day for a BERT being called was 11:00am-3:00pm. The next most common time of day for BERT calls was 7:00pm-11:00pm. The longer data is collected on this data point, the PM will be able to evaluate if there needs to be staffing adjustments made based on the time-of-day BERTs are called. The PM also reviewed data to determine if the BERTs were successful at verbally de-

escalating patients or if they had to convert to a WPV event (see Appendix I). Of the 33 BERTs, 73% of them were successful at verbally de-escalating patients and not having to resort to a WPV event. Medications given during BERTs were also tracked (see Appendix J). Of the 33 BERTs, 67% of the events resulted in medications being given to the patient to assist with the management of their behavior. There were times when restraints were needed due to the behavior of the patient (see Appendix K). Twenty-one percent of the BERTs resulted in a patient being placed in restraints.

Section V. Interpretation and Implications

Costs and Resource Management

Developing a BERT from the beginning in a hospital setting can be complicated. Research is necessary to determine best practices on the structure of a BERT, how to initiate the BERT, how to educate the staff on utilizing the BERT, and developing a debriefing tool to utilize. In the setting of a hospital that is within a system, the PM would need to seek out other facilities to see if there are BERTs already formed within the system at other facilities. Using other facilities as resources is a good starting point and can steer the PM in the direction of where to start the evidence-based research.

Researching the structure of BERTs throughout a hospital system could be an investment of time. It would depend on the size of the hospital system, how many hospitals are within the system, and if the PM knows who the point of contacts are at each facility to start the inquiry investigation process. On a conservative level, it would take two hours of interview time per facility to answer the basic questions of how each program is set up and the structure of each team.

The PM would also need to do research to ensure the latest evidence-based practices are being implemented and utilized. This research on BERT structure, team responsibilities, and guidelines for when to call a BERT versus a WPV event would take at least eight hours. Once the research has been completed, it would take additional time to educate teammates and conduct mock BERT codes to ensure teammates utilize BERT and WPV effectively. Each unit where BERT will be rolled out should have a mock code conducted on day shift and night shift to ensure teammates are prepared for how to initiate the process and when to use it. This would take

at least four hours per unit to effectively educate all teammates, answer questions, conduct at least two mock BERTs, and debrief afterwards.

A cost associated with the initiation of the BERT at the project site was to install a teammate badge reader at the stairwell outside of Women's Services (WS) and going into the Behavioral Health Unit (BHU). When a BERT is called, a WS nurse responds to BHU so the BHU nurse can respond to the BERT. The WS nurse was having to go all the way down a hallway to a different stairwell that was not locked or use the elevator to get the third floor which took additional time and was delaying the BHU nurse from being able to respond to the BERT. Also, the WS nurse was not able to enter BHU without someone letting them in with a key. The capital investment of two teammate badge readers was \$5,600 each: totaling \$11,200.

Ultimately, an investment of \$11,200 is justifiable to ensure teammates can respond timely to BERTs and can access the areas of the hospital they need to enter. The indirect costs of time and salary would be a one-time investment to create a playbook. Once the playbook is created, it would ultimately save time, money, and resources in any future facility rollouts since the research has already been done.

Developing a playbook on how to implement a BERT from start to finish for an acute care setting would be ideal. This would save time, money, and resources by not having duplication of efforts. Moving forward, any facility could take the playbook and be able to follow the step-by-step recommendations on how to create a BERT, who should be on the team and their responsibilities, when to call a BERT or WPV, and how to conduct a debrief. This would be a future recommendation to implement the project on a large scale (see Appendix L).

Implications of the Findings

While the number of WPV events did not decrease during the pilot phase of the project, this implementation of BERT was still successful. Increasing the awareness of WPV events and decreasing the tolerance of teammates being verbally or physically assaulted could have contributed to an overall increase in reporting of WPV events (Dahnke & Mulkey, 2021). Workplace violence is under-reported, and some feel it is just part of the job (Nowrouzi-Kai et al., 2019). Increasing the awareness of WPV and the acknowledgement of assaults on teammates not being tolerated could have accounted for the increased reporting of WPV events.

Implications for Patients

The intent of the BERT was to reduce WPV events and to be able to intervene with patients earlier as they start to escalate verbally or show other signs of escalation such as confusion, physical threats, and irritability (Rajwani et al., 2023). By picking up on these early warning signals, patients will feel heard and less likely to act out (Dahnke & Mulkey, 2021). It is also important to identify patients early before they escalate to physical violence to prevent negative outcomes such as restraint usage. The use of restraints can further mitigate the negative behaviors of patients and can lead to injuries, stress, skin impairments, and poor circulation.

Implications for Nursing Practice

Violent patients can cause negative outcomes related to nursing practice. Nurses that must deal with violent patients or family members can become burned out and have low job satisfaction (Dahnke & Mulkey, 2021). Some nurses may try to avoid those violent patients which can lead to poor patient outcomes. With the implementation of BERT, the literature shows it can reduce staff assaults and use of restraints which can result in nursing satisfaction. By initiating BERT early and often, outcome measures can be improved such as decreased staff

injuries, reduce the number of visitors that have to be asked to leave the premises, and increase confidence of staff being able to verbally de-escalate situations.

Impact for Healthcare System(s)

Overall, patients that have medical diagnoses with a complicating behavioral outburst have an increased risk for longer lengths of stay, higher hospital costs, and the need to be restrained (Dahnke & Mulkey, 2021). All of these put hospitals at further risk with regulatory agencies and negative patient outcomes. By addressing these concerns, the hospital can be less likely to lose staff related to unsafe working conditions (Dahnke & Mulkey, 2021).

Sustainability

The initiation of the BERT was piloted on four units at the project site; ED, ICU, and two MSUs. The pilot timeframe was for four months; January-April 2024. The sustainability of the project was to rollout the BERT to the remaining nursing units and departments in the project site hospital so that it is a full facility program. The PM remained the leader of the BERT Task Force and continued to meet twice a week to review all BERTs and WPV events. The same education plan and mock BERT code scenarios were used with the remaining nursing units prior to go-live with the full facility. Monthly data for all WPV events and BERTs were evaluated, reviewed, and shared with the BERT Task Force and the hospital leadership team. As data was reviewed, PDSAs were modified as needed to ensure success and sustainability.

To ensure all teammates were aware of BERT moving forward beyond the original education with the pilot units and the rollout to the remaining part of the hospital, the PM began going to all orientation sessions each month. Monthly, the hospital had new nurse orientation that hosted all registered nurses, licensed practical nurses, and nursing assistants. Each month, the hospital also had a new teammate orientation. The audience for this orientation was all non-

nursing clinical and non-clinical teammates. The PM attended both of these orientation sessions monthly to talk about BERT and WPV and reviewed the education material at each meeting (see Appendix B).

Dissemination Plan

There were several avenues where this DNP project was presented for publication. An abstract was submitted for presentation at the American Organization for Nursing Leadership (AONL) in August 2024 for the April 2025 conference. Historically, presentations at this conference address “sustaining workforce, achieving health equity, addressing the mental health crisis, demonstrating expert and influential nursing leadership, and advancing value-informed health care” (AONL, 2024, para. 1). The AONL conference is an industry leading conference for nursing leaders to learn best practices clinically and administratively.

The joint Pathway to Excellence Conference and Magnet Conference accepted abstracts in January 2025 for the October 2025 conference. An abstract was submitted for this conference. This conference is the largest nursing conference that focuses on best practices, innovation, and research (American Nurse Credentialing Center, 2024). The subcategories for submission at this conference are “structural empowerment, exemplary professional practice, new knowledge, innovations, and improvements, transformational leadership, professional development, safety and quality, shared decision-making and leadership, and well-being” (ANCC, 2024, Drop-down list).

This project was submitted to The ScholarShip at East Carolina University (ECU). This was to ensure the project would be preserved for future ECU students, alumni, and staff to view for future needs. This was submitted July 2024.

This project was presented at the ECU College of Nursing presentation day. This was on July 12, 2024. This presentation day was for all college of nursing faculty and students for the DNP student to present the work in person.

Section VI. Conclusion

Limitations and Facilitators

There were several limitations to this project. The WPV data increased during the pilot phase rather than decreased by 10% which was the projected outcome. A barrier to this could have been an overall increase in reporting WPV events. While it did not produce the outcomes desired for this particular project, increasing the number of WPV events reported would still be considered a success. Highlighting the fact that people are more comfortable reporting WPV events and realizing they should not just endure the assaults would be considered a facilitator in the process.

Another limitation to this project would be particularly aggressive patients. When there was an identified aggressive patient, even with trying to adjust medications, the patient was still violent. One particular patient accounted for 11 staff injuries and 15 WPV over a three-week period of time.

Facilitators in the project were the nursing leaders. Leadership was very supportive of the BERT process and encouraged teammates to call the events early and often. Another facilitator of the project was Administration. The hospital president was supportive of the BERT and allocated capital dollars by paying for the badge readers to ensure staff could respond more efficiently and safely to BERTs.

Recommendations for Others

Recommendations for others considering creation of BERTs would be to engage the multidisciplinary team early and get their buy-in (Pierre et al., 2023). Security, nursing, behavioral health, and the physicians should be partners from the beginning to ensure the project is successful. The recommendation for all teammates to take CPI would be highly encouraged

(Bruccoli, 2023). Whether teammates are on the BERT or not, all teammates would benefit from knowing how to verbally de-escalate patients, how to intervene when patients become physical, and how to remove themselves from dangerous situations, all which is taught in CPI. Investing in teammates with CPI is typically an eight-hour initial class and then an annual renewal course which is four hours (W. Wallace, personal communication, May 22, 2024). Teammates would need to be paid for their time.

Recommendations for Further Study

In addition to operating a BERT, utilizing a screening tool to assist in predicting a patient that may escalate could be a future recommendation. There are several prediction tools noted in the research such as the Behavioral Activity Rating Scale (BARS), the Mini-Mental Status Examination, and the Confusion Assessment Method (Pinkhasov et al., 2020). “One of the most studied violence risk assessments” (Dahnke & Mulkey, 2021, pg. 230) is the Brøset Violence Checklist. Another recommendation would be to add a medical provider to the BERT (Choi et al., 2019). Having a provider on the team can ensure real-time medication review, changes, and orders are made. Future recommendations would also include studying perceptions of safety of staff after implementation of BERT (Bruccoli, 2023).

Final Thoughts

The BERT was created to reduce WPV events and teammate injuries associated with WPV events. The project included the creation of a team, process, plan, and debriefing mechanism to verbally de-escalate patients before they become physically violent. During the pilot phase of the project, there were 33 BERTs. Ideally, there would have been a reduction of WPV events during this same timeframe due to intervening early with BERT, but this could be explained by more reporting of violent behaviors that would have typically not been reported.

There was a heightened awareness and focus on reporting WPV events and BERTs and this could have contributed to the additional WPV events.

Based on the reported data, there were more injuries during the pilot phase than there were during the same timeframe in 2023. This is due to one violent patient that accounted for 11 teammate injuries. Taking that into account and removing that outlier data, there would have been a reduction of injury by 33%. While anecdotal statements from the debriefs note teammates appreciation of the BERT, future research is recommended on teammate perception of safety post-implementation of BERT compared to pre-implementation.

References

- Afriyie-Boateng, M., Loftus, C., Wiesenfeld, L., Hunter, M., & Lawson, A. (2019). Proactive psychiatry intervention using a nurse-led behavioral response model for hospitalized patients with behavioral disturbances. *Journal for Healthcare Quality*, 41(5), 267-273.
- Al-Qadi, M. M. (2021). Workplace violence in nursing: A concept analysis. *Journal of Occupational Health*, 63, 1-11. <https://doi.org/10.1002/1348-9585.12226>
- American Hospital Association. (2023). *Building a safe workplace and community*. <https://www.aha.org/system/files/media/file/2023/04/Building-a-Safe-Workplace-and-Community-Mitigating-the-Risk-of-Violence.pdf>
- American Nurse Credentialing Center. (2024). *Educate. Innovate. Celebrate!* <https://magnetpathwaycon.nursingworld.org/>
- American Nurse Credentialing Center. (2024). *Poster sessions*. [https://magnetpathwaycon.nursingworld.org/postersessions#\(grid|filter\)=.New;](https://magnetpathwaycon.nursingworld.org/postersessions#(grid|filter)=.New;)
- American Organization for Nursing Leadership. (2024). *Abstract presentation for AONL 2024*. <https://www.aonl.org/conference/abstracts>
- American Society for Health Care Risk Management. (2023). *Workplace violence toolkit*. <https://www.ashrm.org/system/files/media/file/2023/07/ASHRM-Workplace-Violence-Toolkit.pdf>
- Baum, N. (2021). Moving from the triple to the quadruple aim. *The Journal of Medical Practice Management*, 36(6), 300-302. <https://www.proquest.com/scholarly-journals/moving-triple-quadruple-aim/docview/2555430710/se-2>
- Bruccoli, A. M. (2023). Implementation of a behavioral emergency response team in the

emergency department. *Journal of Emergency Nursing*, 49(3), 395-402.

<https://doi.org/10.1016/j.jen.2023.01.011>

Centers for Disease Control and Prevention. (2022). *The national institute for occupational safety and health home: Occupational violence.*

<https://www.cdc.gov/niosh/topics/violence/fastfacts.html#:~:text=According%20to%20the%20Bureau%20of,required%20days%20away%20from%20work.&text=Of%20those%20victims%20who%20experienced,73%25%20were%20female>

Choi, K. R., Omery, A. K., Watkins, A. M. (2019). An integrative literature review of psychiatric rapid response teams and their implementation for de-escalating behavioral crises in nonpsychiatric hospital settings. *Journal of Nursing Administration*, 49(6), 297-302.

Copeland, D. (2020). A critical analysis of the American Nurses Association position statement on workplace violence. *Advances in Nursing Science*, 44(2), E49-E64.

<https://doi.org/10.1097/ANS.0000000000000345>

Copeland, D., & Arnold, S. (2021). The moral dilemma of interpreting workplace violence. *Nursing Inquiry*, 28, 1-8. <https://doi.org/10.1111/nin.12406>

Croke, L. (2022). Prevention and management of workplace violence. *Association of Peri-Operative Registered Nursing Journal*, 116(2), 5-7.

<https://doi.org/10.1002/aorn.13760>

Dahnke, D., & Mulkey, M. A. (2021). Using a behavioral response team on non-psychiatric nursing units. *Nursing Continuing Professional Development*, 30(4), 229-234.

Grant, S., Davidson, J., Manges, K., Dermenchyan, A, Wilson, E., & Dowdell, E. (2020).

- Creating healthful work environments to deliver on the quadruple aim. *The Journal of Nursing Administration*, 50(6), 314-321.
- <https://doi.org/10.1097/NNA.0000000000000891>
- Havaei, F. (2021). Does the type of exposure to workplace violence matter to nurses' mental health? *Healthcare*, 9(41), 1-11. <https://doi.org/10.3390/healthcare9010041>
- Institute for Healthcare Improvement. (2023). *The IHI triple aim*.
- <https://www.ihl.org/Engage/Initiatives/TripleAim/Pages/default.aspx>
- Ming, J., Huang, H., Hung, S., Chang, C., Hsu, Y., Tzeng, Y., Huang, H., & Hsu, T. (2019). Using simulation training to promote nurses' effective handling of workplace violence: A quasi-experimental study. *International Journal of Environmental Research and Public Health*, 16(19), 3648. <https://doi.org/10.3390/ijerph16193648>
- Nowrouzi-Kia, B., Chai, E., Usaba, K., Nowrouzi-Kia, B., & Casole, J. (2019). Prevalence of type ii and type iii workplace violence against physicians: A systematic review and meta-analysis. *The International Journal of Occupational Environmental Medicine*, 10(3), 99-109.
- Occupational Safety and Health Administration. (2016). *Guidelines for preventing workplace violence for healthcare and social service workers*.
- <https://www.osha.gov/sites/default/files/publications/osh3148.pdf>
- Occupational Safety and Health Administration. (2023). *Workplace violence*.
- <https://www.osha.gov/workplace-violence#:~:text=Workplace%20violence%20is%20-any%20act,physical%20assaults%20and%20even%20homicide>.
- 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), E956-964.
- Pierre, P. E., Loeb, S. J., & Bransby, K. A. (2023). Evaluating a behavioral response team in an acute care hospital. *Med-Surg Nursing*, 32(1), 46-61.
- Pinkhasov, A., Hallo, C., Avishai, A., Akerman, M., & Brand, D. A. (2020). Toward prevention of behavioral emergencies in a general hospital insights from a one-year series. *General Hospital Psychiatry*, 66, 54-58. <https://doi.org/10.1016/j.genhosppsych.2020.06.008>
- Rajwani, A., Clark, N., & Montalvo, C. (2023). Understanding best practices in implementation of behavioral emergency response teams through a scoping review. *Journal of American Psychiatric Nurses Association*, 29(5), 375-388.
<https://doi.org/10.1177/10783903221114335>
- Stafford, S., Avsar, P., Nugent, L., O'Connor, T., Moore, Z., Patton, D., & Watson, C. (2022). What is the impact of patient violence in the emergency department on emergency nurses' intention to leave? *Journal of Nursing Management*, 30, 1852-1860.
<https://doi.org/10.1111/jonm.13728>
- Taylor, M. J., McNicholas, C., Nicolay, C., Darzi, A., Bell, D., & Reed, J. E. (2014). Systematic review of the application of the plan-do-study-act method to improve quality in healthcare. *British Medical Journal Quality & Safety*, 24(4), 290-298.
<https://doi.org/10.1136/bmjqs-2013-001862>
- U.S. Department of Health and Human Services (USDHHS). (2023a). *History of healthy people*.
<https://health.gov/our-work/national-health-initiatives/healthy-people/about-healthy-people/history-healthy-people>
- U.S. Department of Health and Human Services (USDHHS). (2023b). *Reduce work-related*

assaults – OSH05. <https://health.gov/healthypeople/objectives-and-data/browse-objectives/workplace/reduce-work-related-assaults-osh-05>

Appendix A

Evidence Matrix

Authors	Year Pub	Article Title	Theory	Journal	Purpose and take home message	Design/Analysis /Level of Evidence	IV DV or Themes concepts and categories	Instr. Used	Sample Size	Sample method	Subject Charac.	Comments/critique of the article/methods GAP5
Brucoli, A. M.	2023	Implementation of a behavioral emergency response team in the emergency department	N/A	<i>Journal of Emergency Nursing</i>	Implementing a behavioral emergency response team in the emergency department can create a safer environment for staff to reduce WPV and increase safety.	Quality Improvement using evidence-based protocols, descriptive statistics Level V	IV Implementation of BERT DV Level of Safety perception among staff in ED	preimplementation and postimplementation survey which was a modified perception of safety survey from the Emergency Nurses Association (ENA).	43- preimplementation 21- postimplementation	inner-city not-for-profit hospital in central South Carolina.	Preimplementation: 61.9% day shift, 23.8% mid shift, 16.7% night shift 85% trained to report WPV Postimplementation: 66.7% day shift, 9.5% mid shift, 23.8% night shift 90% trained to report WPV	Limitations: Number of participants in study, both pre- and post-implementation. BERT activation was limited in the first 4 weeks, requiring re-education. Usefulness: Use of triggers identified in article is helpful. Noted the team is not freestanding, which means they have regular assignments and respond to the "code" when called upon. CPI training is used for verbal de-escalation. Post BERT call, a debriefing will occur on what went well and what could go better next time. Synthesis: Will consider using a debriefing tool after BERTs to get feedback on what went well and what can go better moving forward as a PDSA cycle change.
Pinkhasov, A., Hallo, C., Avishai, A., Akerman, M., Brand, D. A.	2020	Toward prevention of behavioral emergencies in a general hospital insights from a one-year series	N/A	<i>General Hospital Psychiatry</i>	Identify triggers and early warning signs for when to call a BERT	Cross-sectional study Level VI	IV Patients that had a behavioral rapid response called on them DV Use of Behavioral Activity Rating Scale (BARS) tool	Univariate analyses compared study and control patients, Hosmer-Lemeshow goodness-of-fit test	83	595 bed teaching hospital in metropolitan NYC without a psychiatric unit	mean age 63 years old, 75.9% male, 10.8% substance abuse principle dx, 48.2% substance use disorder hx, 33.7% using one or more psychotropic meds	Limitations: This was a review of medical records, so some information about triggers may have been missing from the medical record or incident report. Continuous presence of security in the emergency department may keep incidents low due to being able to immediately respond to events without having to formally call a BERT. Usefulness: identifying the members of the BERT. Use of Behavioral Activity Rating Scale (BARS) as an early warning systems trigger scoring system. Synthesis: Will look into BARS for implementation in the ED setting.
Pierre, P. E., Loeb, S. J., Bransby, K. A.	2023	Evaluating a behavioral response team in an acute care hospital	N/A	<i>MedSurg Nursing</i>	Implementing a BERT can decrease staff assaults if called early and often.	Cross-sectional study Level VI	IV Creation of BRT DV Management of Aggression and Violence Attitude Scale (MAVAS) survey	Management of Aggression and Violence Attitude Scale (MAVAS) questionnaire	210	Project leader distributed to community hospital staff members and physicians from medical-surgical unit	Preimplementation: 68.3% female, 73.3% RNS, 23.3% ancillary staff, 3.4% MDS Postimplementation: 66.3% female, 62.2% RNs, 30.5% ancillary staff, 5.5% MDS	Limitations: Delay with implementing BERT due to COVID-19 pandemic, which impacted response rate. Non-essential staff were not in hospital during education so communication was difficult with new person on to online. No thorough literature review. Usefulness: Creation of a Task Force for oversight of implementation Synthesis: I will definitely create a BERT Task Force Oversight Committee to oversee the project progress.
Afriyie-Boateng, M., Lofus, C., Wiesenfeld, L., Hunter, M., Lawson, A.	2019	Proactive psychiatry intervention using a nurse-led behavioral response model for hospitalized patients with behavioral disturbances	N/A	<i>Journal for Healthcare Quality</i>	Nurse-led team, called Behavioral Optimization and Outcomes Support Team (BOOST), which is another name for BERT to respond to behavioral emergencies.	Cross-sectional survey Level VI	IV Implementation of BOOST DV Staff perception of safety after implementation of BOOST	Geriatric Institutional Assessment Profile (GAIP)	64	All staff who participated in the Behavioral Optimization and Outcomes Support Team (BOOST) program	Not described in article.	Limitations: Lack of assessment of value at patient and organizational level of the BOOST program Usefulness: Has a clear objective of the BOOST program. Idea of advertising the program to staff about BOOST (in my case BERT) in rounds, huddles, staff meetings, elevators, email, etc. Identified clinical triggers and behaviors to call team. Synthesis: Use of the triggers and examples of behaviors for education will be useful in roll out plan.

Appendix B

Educational Flyer for Hospital Staff and Nurses

Behavioral Emergency Response Team

BERT

ALERT

Avoid Workplace Violence.

Call **34911** if:

- You perceive danger.
- Patient is escalating:
(pacing, tone/volume of voice, staring, mumbling,
verbal threats, cursing, agitation, and
unable to be redirected)

*If patient is already physically violent, use panic
alarm or 34911 to call a Workplace Violence.

Appendix C

BERT Team Roles



Appendix D

ECU IRB Approval

Based on your responses, the project appears to constitute QI and/or Program Evaluation and IRB review is not required because, in accordance with federal regulations, your project does not constitute research as defined under 45 CFR 46.102(d). If the project results are disseminated, they should be characterized as QI and/or Program Evaluation findings. Finally, if the project changes in any way that might affect the intent or design, please complete this self-certification again to ensure that IRB review is still not required. Click the button below to view a printable version of this form to save with your files, as it serves as documentation that IRB review is not required for this project. 9/14/2023

Appendix E

Project Site IRB Approval Email

IRB APPLICATION APPROVED

To:
Study Title: Reduce WPV with implementation of BERT
IRB #: IRB00102803
PI:
Link to Workspace: [IRB00102803](#)

PLEASE DO NOT RESPOND TO THIS EMAIL- Call (336) 716-4542 if you have questions.

The Institutional Review Board has reviewed and approved the above referenced research study. Please use the "Link to Workspace" above to access the approval memo, consent forms, assent forms, and other items associated with this study.

Institutional Review Board

Please do not respond to this email by using the "reply" address. This account is configured exclusively for outgoing messages from eIRB.

If you have Citrix portal access, [click here](#). If you

If the link provided does not work, please see the instructions below for accessing eIRB through your web browser.

Please use the following link for academic applications- Education and Research

for access to eIRB click the Research Applications button and then Huron IRB

Choose the following and enter your ame and password

This electronic message is intended only for the use of the individual(s) and entity named as recipients in the message. If you are not an intended recipient of this message, please notify the sender immediately and delete the material from any computer. Do not deliver, distribute or copy this message, and do not disclose its contents or take any action in reliance on the information it contains. Thank you.

 Reply

 Forward

Appendix F

Project Site IRB Approval Letter

HEALTH SCIENCES

Office of Research
Institutional Review Board

MEMORANDUM

To:
Clinical and Translational Science Institute {CTS!}

From:
Analyst Institutional Review Board

Date: 10/26/2023

Subject: Not Human Subjects Research: IRBOO 102803
Reducing Workplace Violence (WPV) Events with the Implementation of a
Behavioral Emergency Response Team (BERT)

Institutional Review Board has reviewed your protocol and determined that it does not meet the federal definition of research involving human subject research as outlined in the federal regulations 45 CFR 46. 45 CFR 46.102(f) defines human subjects as "a living individual about whom an investigator (whether professional or student) conducting research obtains (1) data through intervention or interaction with the individual, or (2) identifiable private information."
The information you are receiving is not individually identifiable. In recent guidance published by the Office of Human Research Protections (OHRP) on the Guidance on Research Involving Coded Private Information or Biological Specimens, OHRP emphasizes the importance on what is being obtained by the investigator and states "if investigators are not obtaining either data through intervention or interaction with living individuals, or identifiable private information, then the research activity does not involve human subjects."

Note that only the IRB can make the determination for its investigators that a research study does not meet the federal definition of human subject research. Investigators do not have the authority to make an independent determination that a study does not meet the federal requirements for human subject research. Each project requires a separate review and determination by the Board. The

Board must be informed of any changes to this project, so that the Board can determine whether it continues to not meet the federal requirements for human subject research. If you have any questions or concerns about this information, please feel free to contact our office at 716-4542.

IRB IS duly constituted has written procedures for initial and continuing review of clinical trials, prepares written minutes of convened meetings, and retains records pertaining to the review and approval process, all in compliance with requirements of FDA regulations 21 CFR Parts 50 and 56, HHS regulations 45 CFR 46 and International

With OHRP/FDA, our IRB registration numbers are [RB00000212t IRB00002432, •RB00002433, IRB00002434, IRB00008492, IRB00008493, iRB00008494, and IRB00008495. WFSM IRB has been continually fully accredited by the Association for the Accreditation of Human Research Protection Programs (AAHRPP) since 2011.



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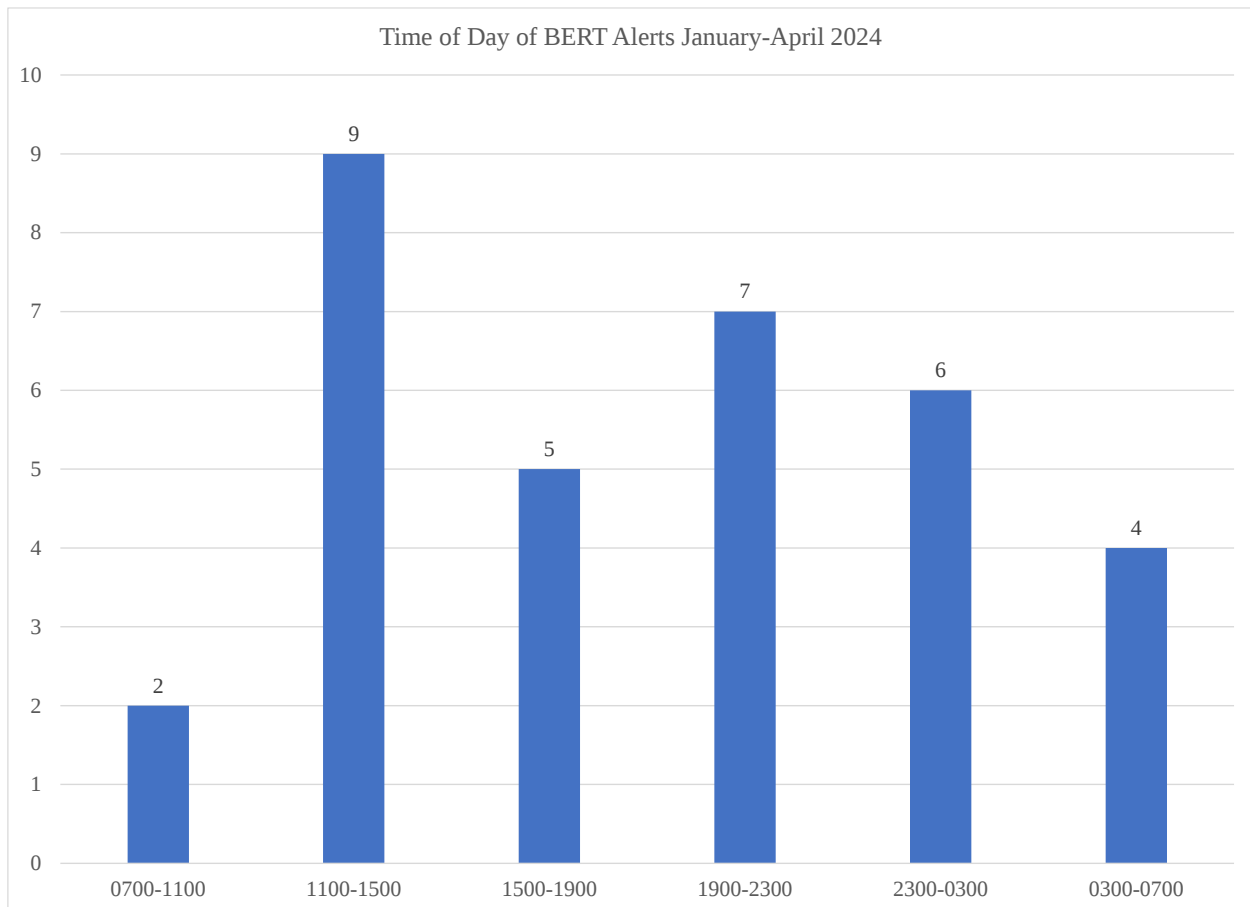
Appendix G
Project Timeline

**BERT IMPLEMENTATION
TIMELINE**



Appendix H

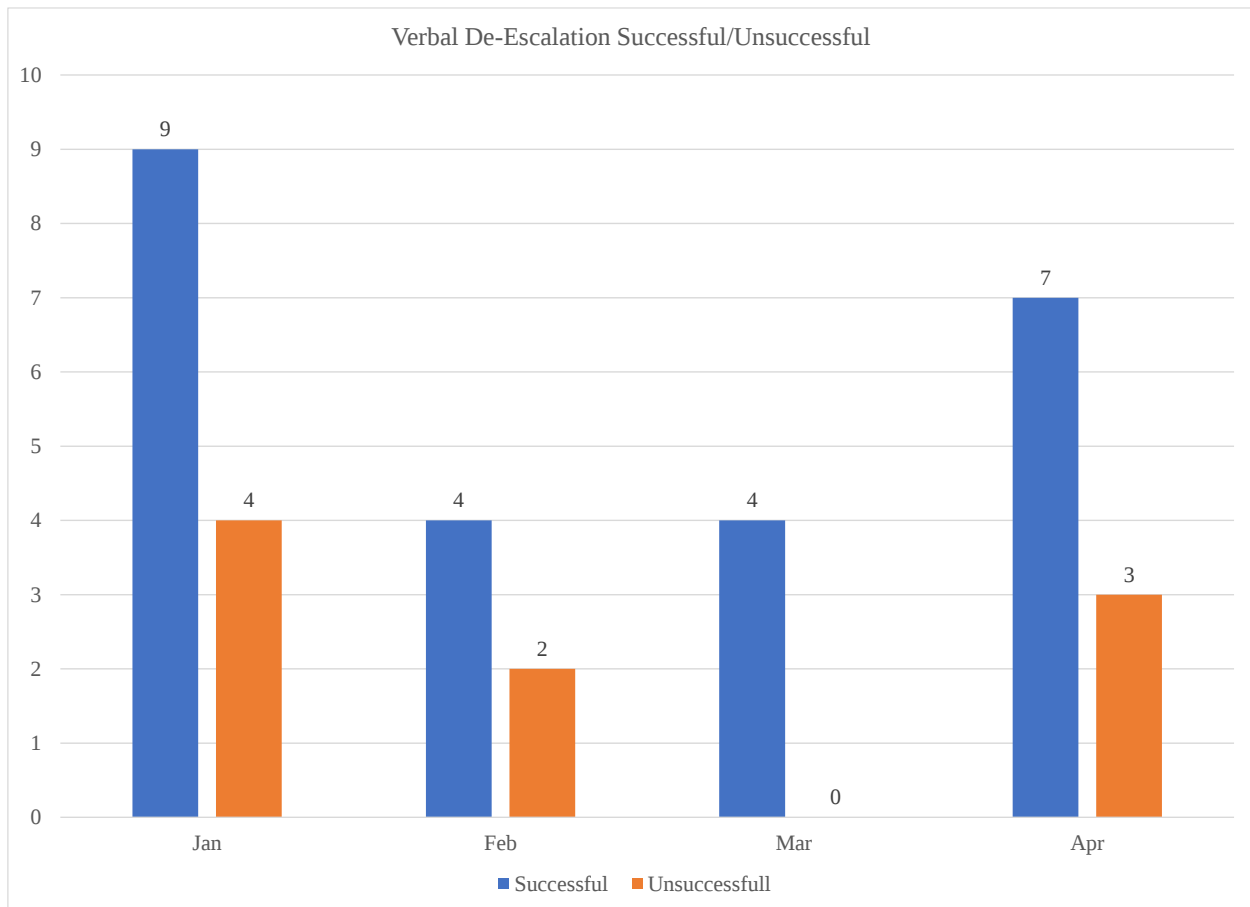
BERT Time of Day



Note. This graph depicts the number of BERT calls by time of day during the implementation phase, January-April 2024. The time of day is grouped in four-hour increments.

Appendix I

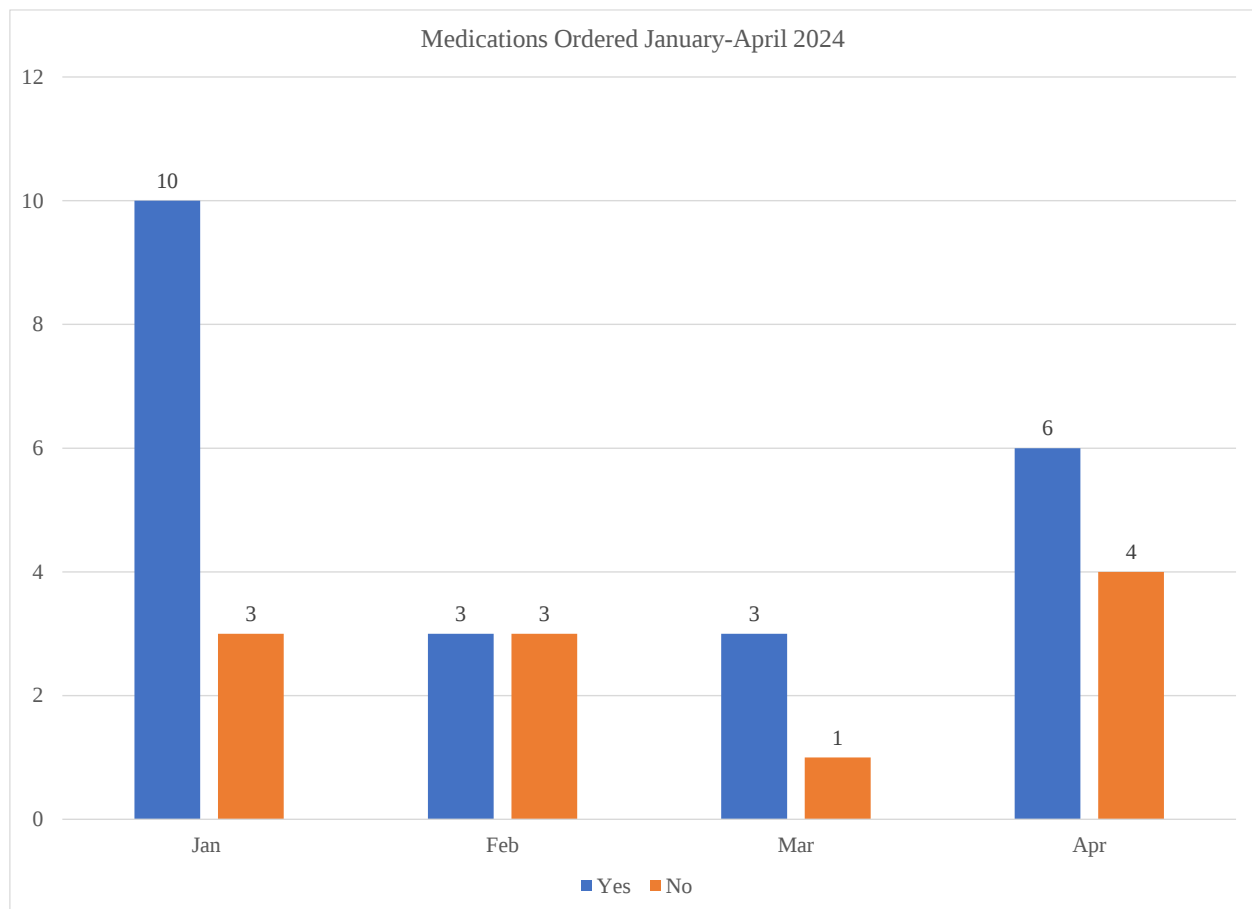
Verbal De-Escalation



Note. This graph depicts whether the BERT calls were successful or unsuccessful with being able to verbally de-escalate the situation without having to move to a workplace violence event by month during the implementation phase, January-April 2024.

Appendix J

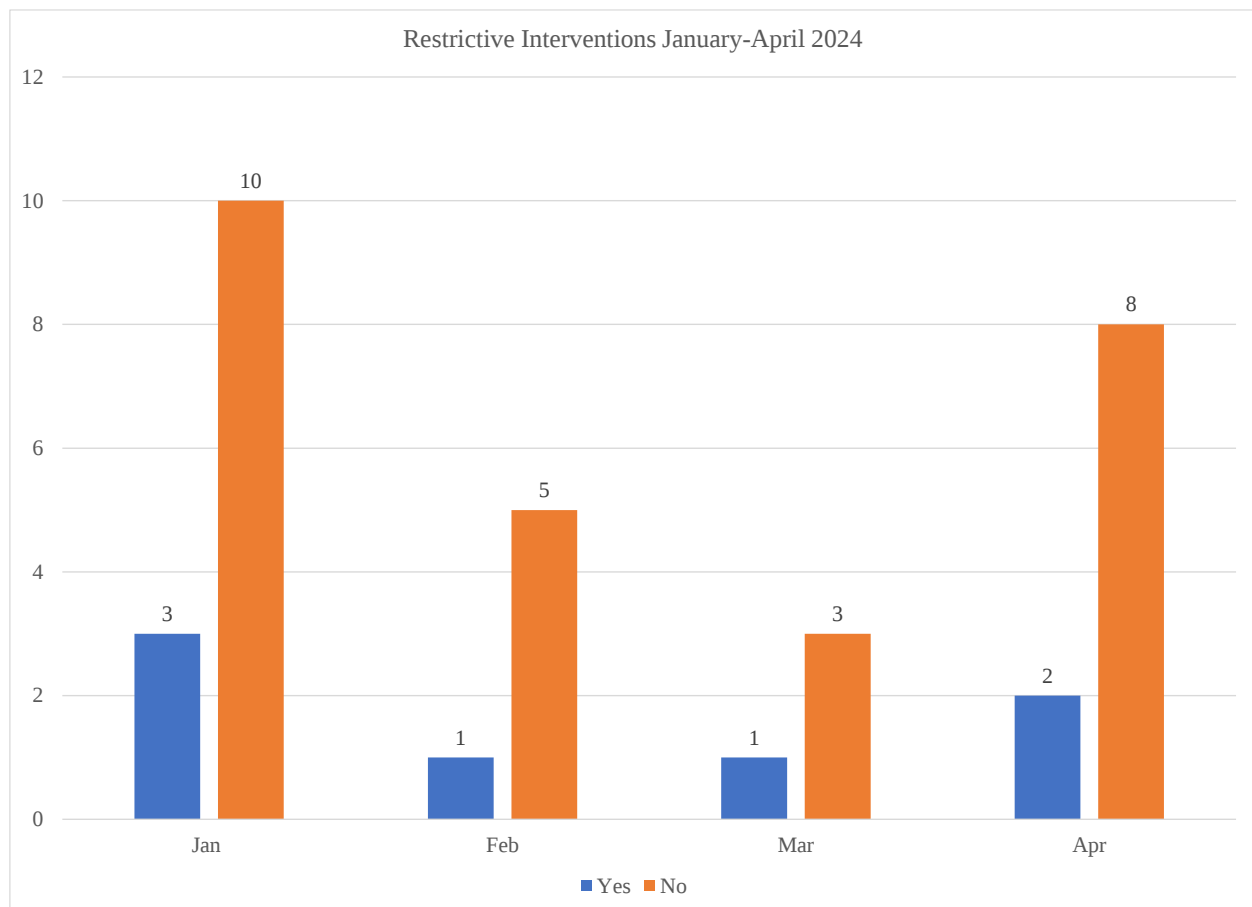
Medications Ordered



Note. This graph depicts whether medication was ordered during the BERT by month during the implementation phase, January-April 2024.

Appendix K

Restrictive Interventions



Note. This graph depicts whether restrictive interventions were ordered or not during the BERT during the implementation phase months, January-April 2024.

Appendix L

BERT Itemized Budget

BERT PROJECT ITEMIZED BUDGET

#	Expenses	Time	Amount per	Total Cost
8	Research time on BERT evidence-based practice	8 hours	\$50/hour	\$400
10	Research time on BERT for facilities within the system (10 within market)	2 hours/facility	\$50/hour	\$1,000
4	Education on each unit where BERT was initiated, including mock BERT codes (4 units)	4 hours	\$50/hour	\$800
2	Installation of badge readers	2 hours	\$5,600	\$11,200
1	Creation of electronic playbook (future plan)	8 hours	\$50/hour	\$400
4	Evaluation of BERT data monthly (pilot phase 4 months)	2 hours	\$50/hour	\$400
Total				\$14,200

#	Monthly Operating Expenses	Time	Amount per	Total Cost
1	Evaluation of BERT data monthly (moving forward)	2 hours	\$50/hour	\$100
Total				\$100