

Gardner-Webb University

Digital Commons @ Gardner-Webb University

---

Nursing Theses and Capstone Projects

Hunt School of Nursing

---

2018

## Evidence-based Interventions to Address Workplace Violence in the Emergency Department

Gari Leigh Adams

Follow this and additional works at: [https://digitalcommons.gardner-webb.edu/nursing\\_etd](https://digitalcommons.gardner-webb.edu/nursing_etd)



Part of the [Nursing Commons](#)

---

Evidence-based Interventions to Address Workplace Violence in the Emergency

Department

By

Gari Leigh Adams

A DNP Project submitted to the faculty of  
Gardner-Webb University Hunt School of Nursing  
In partial fulfillment of the requirements for the degree of  
Doctorate of Nursing Practice

Boiling Springs, NC

2018

Submitted by:

Approved by:

---

Gari Leigh Adams, MSN, RN,  
CEN

---

Dr. Anna S. Hamrick, DNP, FNP-C

---

Date

---

Date

## Approval Page

This DNP Project has been approved by the following DNP Project Committee Members.

Approved by:

---

Gloria Walters, PhD, RN  
Committee Member

---

Daria Kring, PhD, RN  
Committee Member

---

Cindy Miller, PhD, RN  
Chair, Graduate Nursing Programs

## Abstract

Workplace violence, as a result of violent patient behavior, is a problem in health care settings and the incidence is increasing. The vulnerability of the emergency department (ED) contributes to the high incidence of violence and includes long waits, crowded spaces, high anxiety levels, substance abuse, and a large number of behavioral health patients seeking treatment. ED team members admit they do not always feel safe when caring for patients due to the risk of violent behavior. Workplace violence effects team member productivity, job satisfaction, and burnout. Team members are at risk for injury or harm and coping challenges as a result.

Evidence shows that a triad of interventions can be used to improve confidence and the perception of safety amongst ED team members in an effort to address the challenges of workplace violence. Interventions include policy updates, procedure enhancements, and education. The interventions are an effort to improve communication amongst team members and enhance safety. Policy updates reflect zero-tolerance of workplace violence, reporting, and procedures to follow in the incidence of a violent episode. Procedure enhancements to the electronic medical record (EMR) provide a method to “flag” patients who are violent or have a history of violence, providing team members a sense of awareness of potential risk. Patient “flagging” provides an alert in the EMR and improves safety by notifying public safety and the patient’s care team during each encounter. Education to increase knowledge and raise awareness about workplace violence, zero-tolerance policies, and procedures is a final intervention to improve safety.

*Keywords:* violence, workplace, violent patient, emergency department, ED, interventions, flagging, safety, patient aggression

## Acknowledgements

I appreciate and owe thanks to many individuals who encouraged me and supported me along this educational journey. God put the opportunity in front of me, held me and provided me with strength, wisdom, and guidance along the entire journey. Without Him, this would not have been possible. I am blessed and beyond grateful for my husband and two precious girls who cheered me along the way. Whether I was overwhelmed with life, work, or school, they showed me patience and unconditional love. Other family members that supported me and cheered me along include my loving mother and sister.

I am also very grateful for the support and guidance of my director and mentor, Dr. Daria Kring, who listened, pushed, and provided me with direction and encouragement. Also, Dr. Gloria Walters, Dr. Lesa Smith, Tracey Whitley, and my other colleagues who showed interest in my progress and provided me with knowledge and support. I am grateful for each of them. I would also like to extend a thank you to various committee members and nursing leaders to include Heather Strange, Kathy Haddix-Hill, Jill McKinney, Andrea Keenan, Kyle Dangerfield, and Kip Clark. They each invested time into my project work and continue to assist and support me in some capacity while sustaining my work against workplace violence. Dr. Jason Stopyra is appreciated, as he brought workplace violence to my attention and provided me with a foundation to get my work started. Finally, I want to thank my project chair, Dr. Anna Hamrick, for endless feedback, encouragement, support, and guidance. Dr. Hamrick was committed to my success, anticipated my needs, and pushed me to the finish line. I will forever be grateful for her and know God intentionally placed her in my life.

© Gari Leigh Adams 2018

Table of Contents

SECTION I: PROBLEM RECOGNITION	
Problem Background and Significance .....	1
Problem Statement .....	3
SECTION II: LITERATURE REVIEW	
Literature Review .....	5
Literature Summary .....	13
SECTION III: NEEDS ASSESSMENT	
Needs Assessment .....	14
Population .....	19
Sponsor and Stakeholders .....	20
Organizational Assessment Using a SWOT Analysis .....	20
Available Resources .....	21
Desired Outcomes .....	21
Team Selection .....	22
Cost Analysis .....	22
SECTION IV: GOALS, OBJECTIVES, AND MISSION STATEMENT	
Goals .....	24
Objectives .....	24
Mission Statement .....	24
SECTION V: Theoretical Underpinnings	
Theoretical Underpinnings .....	25
SECTION VI: WORK PLANNING	
Project Plan .....	27

SECTION VII: EVALUATION PLANNING

Evaluation Plan ..... 31

Logic Model Development ..... 33

SECTION VII: PROJECT IMPLEMENTATION

Project Implementation ..... 34

Threats and Barriers ..... 36

Implementation Summary ..... 37

SECTION IX: INTERPRETATION OF DATA

Results ..... 38

Interpretation of Results ..... 45

Limitations ..... 46

Discussion ..... 47

Recommendations ..... 52

Sustainability ..... 53

SECTION X: UTILIZATION AND REPORTING OF RESULTS

Implications for Practice ..... 56

REFERENCES ..... 58

APPENDICES

A. Nursing Needs Assessment Survey ..... 63

B. Project Plan ..... 64

C. Project Timeline ..... 67

D. Pre-Implementation Email Consent with Survey Link ..... 68

E. Pre and Post-Implementation Survey Questions ..... 70



F. Post-Implementation Email Consent with Survey Link .....	72
G. Logic Model .....	74

LIST OF FIGURES

Figure 1: Pre and Post-Implementation Mean of Total Scores Compared With Primary  
Job Role In The ED ..... 43

## LIST OF TABLES

Table 1: Team Member Injuries As a Result of Violent Patient Episodes .....	18
Table 2: ED Needs Assessment Survey Summary .....	18
Table 3: SWOT Analysis for Project Site In Relation To Workplace Violence.....	20
Table 4: Direct and Indirect Cost of Project Work .....	22
Table 5: The Haddon Matrix and Workplace Violence .....	26
Table 6: Comparison of Pre and Post-Implementation Total Scores .....	39
Table 7: Mean and Standard Deviation of Each Survey Question .....	39
Table 8: Demographic Statistics of the Sample .....	40
Table 9: Mean, Standard Deviation, and Range For Job Roles in the ED .....	42
Table 10: ED Team Member Compliance With Safety and Security Alert Flag and Order .....	44
Table 11: ED Team Member Compliance With Safety and Security Alert Flag and Order Separated By Facility .....	45

## SECTION I

### **Problem Background and Significance**

The United States (US) Department of Labor (2017) defines workplace violence as an act or threat of physical violence, harassment, intimidation or other threatening disruptive behavior that occurs at work. The National Institute for Occupational Safety and Health (NIOSH) (2018) states workplace violence can range from verbal, written, or physical aggression. In general, workplace violence is defined as any physical assault, emotional or verbal abuse, or threatening, harassing, or coercive behavior in a working environment that may result in physical or emotional harm (Gacki-Smith, Juarez, & Boyett, 2009). Workplace violence leaves a negative effect on individuals and in the working environment.

Workplace violence has become an increasing concern in the health care setting. From 2002 to 2013, the prevalence of serious workplace violence incidents were four times more common in a health care setting than in a private industry (Occupational Safety and Health Administration (OSHA), 2015). Health care workers are at high risk and have a greater chance of being a victim of violence than other workers in the US (NIOSH, 2018). Health care represents 11.5% of the US workforce and 67% of all nonfatal workplace violence injuries occur in a health care setting (Locke, et al., 2018). In 2013, 80% of violent events reported in health care settings were caused by interactions with patients (OSHA, 2015). Among the different health care settings, emergency departments (EDs) have been identified as a high-risk area. Evidence indicates ED nurses are at a greater risk of violence than other nurses (Kowalenko, Cunningham, Sachs, Gore, Barata, Gates, Hargarten, Josephson, Kamat, Kerr, & McClain, 2012).

Over 1 million ED employees have been impacted by violence, including 117,000 registered nurses (RNs) (Gates, Gillespie, Smith, Rode, Kowalenko, Smith, & Arbor, 2011). The most common form of violence in the ED is patient aggression against nurses (Solorzano-Solorzano-Martinez, 2016). The aggression or violent behavior may come in the form of yelling, spitting, smacking, biting, kicking, punching, pinching, scratching, choking, stabbing, or killing (Taylor & Rew, 2010). From a two-year study, the Emergency Nurses Association (ENA) reported that 12% of ED nurses experienced physical violence and 43% experienced verbal abuse over a seven-day period (2011). Of the participants of this study, 65% did not formally report physical violence and 86% did not report the verbal abuse (ENA, 2011).

Many violent events that take place in the workplace are not always reported. Under reporting of violent events in the ED setting has been an identified concern related to workplace violence. Barriers to reporting include fear of retaliation from leaders or administrations, a perception that reporting is a sign of weakness, the belief that improvements will not occur, and the idea that violence is “part of the job” (Gacki-Smith et al., 2009). Without reporting, hospital administrators are not aware of the problem and cannot facilitate operational improvements to create a safer environment.

Risk factors for violence in EDs can be complex and interrelated. Current research has identified patient, environmental, and staff risk factors as the major precursors of workplace violence initiated by patients (Solorzano-Solorzano-Martinez, 2016). Patient risk factors include behavioral health disorders, substance abuse, and access to firearms. Environmental risk factors include poor security, uncontrolled movement of the public, delays in care or service, crowding, uncomfortable conditions,

and working directly with potentially dangerous people (Taylor & Rew, 2010). Lack of education and training, inadequate staffing, and working alone have been identified as staff risk factors (Taylor & Rew, 2010).

The effects of violence can be significant and long lasting for staff and may include fear of returning to work, low morale, anger, increased stress, loss of confidence, burnout and productivity (Howard & Gilboy, 2009). Violence causes distraction and distraction can lead to nursing errors and possibly, poor patient outcomes (Lock, et al., 2018). Organizations may be affected by violence as a result of decreased productivity, staff turnover, worker's compensation claims, and legal liabilities (Gillespie, Gates, Kowalenko, Bresler, & Succop, 2014).

Workplace violence in EDs will continue to be a concern without acknowledgment of the problem, education, and intervention. Various recommendations for violence prevention and safety encourage multi-faceted approaches. Gillespie, et al. (2014) recommends a triad of policies, procedures, and education in efforts to decrease violence in the ED. The ENA has taken a position to promote healthy work environments for nurses, stating “protection against acts of violence must include effective administration, environmental, and security components” (ENA, 2014).

### **Problem Statement**

ED nurses are challenged with complex patient loads and are not always prepared to handle a patient with violent behavior. Workplace violence, particularly involving patients that display violence toward nurses, has become a significant problem in the health care industry. As a result, ED nurses lack a sense of safety while at work. Health care organizations need clearly defined policies and procedures which institute an

organized plan that guides and supports nurses during this time of crisis. The purpose of this Doctorate of Nursing Practice (DNP) project is to determine whether evidence-based interventions will improve confidence and the perception of safety of team members working in the ED.

## SECTION II

### Literature Review

Gacki-Smith, et al. (2009) partnered with the ENA to address violence against ED nurses through advocacy and research. A cross-sectional study was conducted to investigate emergency nurses' experiences and perceptions of ED violence, the types and frequencies of assaults in the ED, and contributing factors to ED violence (Gacki-Smith et al., 2009). This was the first national study of emergency nurses' experiences and perceptions of workplace violence. The study consisted of a survey developed by ENA and it was made available online through solicitation and announcements to all members. The 69-item survey addressed physical and verbal abuse in the ED, policies and procedures available and the respondent's beliefs about precipitating factors of violence and barriers to reporting violence (Gacki-Smith et al., 2009).

Of approximately 31,905 ENA members in the United States (US), 10.9% completed the survey; all 50 states were represented. Findings revealed workplace violence as a commonality among ED nurses and were consistent with research literature internationally (Gacki-Smith et al., 2009). Other results consistent with prior studies found that nurses do not feel safe in the workplace, perceive that violence is unavoidable, identify barriers to reporting violence, desire improved safety measures, and perceive a lack of support from administration in addressing ED violence (Gacki-Smith et al., 2009). Results recognize precipitators to violence and well-known ED problems such as care for the behavioral health patient, crowding, long wait times, misconceptions of staff behavior, perceptions of staff as uncaring, boarding patients, shortage of nurses, and lack of enforced policies (Gacki-Smith et al., 2009). Recommendations from this study focus



on solving large problems, as well as a commitment from leaders to reduce violence and eliminate barriers to reporting violence by creating a safe environment. An interdisciplinary approach is encouraged to identify vulnerabilities and develop a plan to prevent, respond, and report violence (Gacki-Smith et al., 2009). Finally, the study was inconclusive to the effectiveness of education and training on violence prevention and further research is recommended.

Copeland & Henry (2017) conducted a study to investigate the relationships between exposure to violence, reporting of violence, tolerance to and expectation of violence, perceptions of safety, and perceived viability of interventions to reduce violence. The study involved ED staff members (non-providers) and health care providers from various disciplines, adding an interdisciplinary approach. A cross-sectional design was used to survey all ED staff members in a suburban ED. The ED had existing violence prevention strategies in place such as continuous security presence, metal detectors, controlled access, panic buttons, a mandatory reporting policy, immediate triage to exam room minimizing wait times, staffing levels above the national average, a segregated psychiatric ED, individual patient rooms, name badges for visitors, and exclusive hiring of experienced nurses (Copeland & Henry, 2017). A total of 147 people completed an online survey, which resulted in a 63% response rate. Of the respondents, 88% reported exposure to violence within the past six months (Copeland & Henry, 2017). Verbal abuse from a patient was the most prevalent form of violence recorded; although, all forms of violence were experienced and perpetrated by patients. The majority of respondents (98%) reported feeling safe at work and there was no correlation found between perception of safety and tolerance to violence or expectations of violence as part of the

job (Copeland & Henry, 2017). Of the participants who experienced violence in the past six months, only 3% formally reported all incidents. Despite the existing efforts to ensure safety in the department, the respondents were asked to choose interventions they believed would influence a safer work environment. De-escalation training was identified by 47% of respondents and 16% chose a form of identifying patients with a history or risk of violence (Copeland & Henry, 2017). Although this study was limited by sample size and location, conclusions include the following: exposure to violence is not limited to direct providers; ED staff members are exposed to violence frequently despite preventative measures; they expect to be exposed to violence; their tolerance to violence is comparable to peers; they perceived themselves as safe even though they are exposed to violence; and they do not report violence often (Copeland & Henry, 2017). Implications for practice include leader support via policy and procedures that provide clear guidance on how to respond to violence, to feeling unsafe, or to actual harm (Copeland & Henry, 2017).

In 2016, Solórzano-Martinez conducted a literature review to identify current evidence-based interventions to assist nurses in minimizing the incidence of workplace violence. From systematic reviews of the literature, there was strong evidence of prolific workplace violence in clinical settings. Common themes amongst studies include staff, environmental, and patient risk factors associated with workplace violence. Staff risk factors include inadequate or non-existent training in the management of assaultive behaviors, understaffing, and working alone (Solórzano-Martinez, 2016). Common environmental risk factors are poor security, delays in service, and working closely with potentially dangerous individuals (Solórzano-Martinez, 2016). Finally, patient risk

factors include access to guns and substance abuse (Solórzano-Martinez, 2016).

Solórzano-Martinez (2016) also found that nurses perceived that workplace violence was common. Nurses view workplace violence as part of the job and have created a culture of acceptance in some settings (Solórzano-Martinez, 2016). Perceptions were influenced by the response of security guards, appropriate training, and existing conditions in the workplace. Underreporting was another common theme. Studies found that nurses were fearful of losing their jobs and believed reporting would not change current practice (Solórzano-Martinez, 2016).

A variety of interventions were noted by Solórzano-Martinez. One study used a code green response team (CGRT), consisting of interdisciplinary staff, that responded to potentially violent situations. The team managed the situation by using the least restrictive measures to control violent or escalating situations (Solórzano-Martinez, 2016). Eighty-five percent of CGRT calls resulted in successful resolution by using verbal de-escalation skills and non-coercive medication administration. The CGRT also resulted in a decrease in restraint application. Other interventions identified included an alert posted outside the patient's room to inform the clinical team that the patient may have the potential to become violent. Additional measures to protect staff included wearing appropriate clothing, rearranging items in the environment to minimize the risk of injury, maintaining appropriate positioning when approaching patients, keeping a safe distance, sustaining the proper stance, using protective personal equipment, employing de-escalation techniques, and active listening (Solórzano-Martinez, 2016).

Recommendations also included standardized team meetings to increase awareness, bedside handoffs, patient information binders, leadership rounds, critical incident

reviews, education in the form of staff meetings and educational programs, and metal detectors. Negative consequences of workplace violence on nurses were identified and included experiences of anger, frustration, feelings of hopelessness, hyper-vigilance, post-traumatic stress disorder, depression or anxiety, and leaving the nursing profession (Solórzano-Martinez, 2016).

Kowalenko, et al. (2012) identified interventions that focus on education and training to reflect recognizing signs of potential violence, early and appropriate responses to escalating behavior, dealing with violence, crisis intervention training, and reporting of workplace violence. Modification in the physical structure, security, policy interventions, communication, and clear procedures were additional intervention findings. As “prior aggression is a strong indicator of future aggression” the staff must be provided awareness of high-risk patients, to prevent violence (Kowalenko, et al., 2012, p. 527). Kowalenko et al. (2012) highlighted the importance of leader commitment and recommended a worksite analysis to assess for risk factors.

Gillespie and fellow researchers completed several studies pertaining to workplace violence in the ED setting. In 2012, Gillespie, Gates, and Mentzel assessed learning outcomes for a violence prevention program. After a series of focus groups with ED leaders, team members, and patients, a need for workplace violence education was identified. An educational program was created for ED team members and public safety personnel and included the prevention of, management of, and recovery from workplace violence. The program was offered in two methods: web-based learning and web-based learning coupled with a classroom portion. Results discovered that significant knowledge attainment was achieved in ED team members that completed the educational program.

Nursing implications reveal that web-based learning outcomes were not different than web-based coupled with a classroom portion (Gillespie et al., 2012). Recommendations focus on choosing an educational method based on the learner preference and availability of products (Gillespie et al., 2012).

In 2013, Gillespie, Gates, Mentzel, Al-Natour, and Kowalenko identified a gap in existing workplace violence prevention programs. The gap was a limited scope and program evaluation. Gillespie et al. developed a comprehensive approach with the goal to create a safer working environment and to make recommendations for other programs. For the study, a program was developed by academic researchers who partnered with ED clinicians. The program was initiated in three different EDs and included a multicomponent intervention: workplace violence policies, procedures, education, and environmental changes (Gillespie et al., 2013). The policies and procedures for the purpose of the project included strategies for risk assessment, maintaining a safe environment, communication of a risk, response to events, reporting, surveillance, and post incidence care (Gillespie et al., 2013). Education included online courses that covered workplace violence prevention, management, and post incidence recovery. An instructor led class was also offered to interprofessional participants and included the application of the online education. Policies and procedure updates were also disseminated via the intranet, flyers, posters, meetings, and name badge cards (Gillespie et al., 2013). Environmental changes were the result of facility assessments and were site specific. Changes included a process to alert nonclinical staff that a violent person was in the room (eg, environmental services) (Gillespie et al., 2013). Changes also included the addition of panic buttons, locked doors, and cameras. The comprehensive program was

implemented over a three-month period. Formative and summative evaluation methods were used. Formative evaluation took place over a 9 month, post-implementation period. The project leader used a checklist to assess the fidelity of interventions during rounding. Some subcomponents of the program were identified and are as follows: rounding in the ED lobby, screening for early signs of potential escalation, verbal screening for a concealed weapon during triage, and flagging patients with a history of violence or exhibiting signs of potential violence. Summative evaluation included a post course evaluation and participants rated the program benefit using a scale from 0 to 10 (mean, 5.3). A program evaluation meeting was also held with ED leaders. The evaluation had mixed results but patient flagging was used consistently in all three EDs. The online education was found to be too lengthy and participants preferred a classroom-learning environment. Overall, ED leaders found the comprehensive program beneficial in reducing workplace violence.

In 2014, Gillespie, et al. (2014) conducted a study with the aim to assess the effectiveness of a comprehensive program intended to reduce the incidence of assaults and physical threats against ED staff. The study included six emergency departments and 209 participants were included in the sample. Three surveys were used (baseline, monthly, and violent event survey) along with an intervention with three components: environmental changes, policies and procedures, and education and training. A baseline survey was as completed first. After implementation of the interventions, the remaining were conducted, with the exception of the violent event survey, which was completed immediately following a violent event.

One facility in the study enthusiastically supported, adopted, and took ownership of the interventions and experienced a 50% decrease in assaults (Gillespie, et al., 2014). This facility had the highest rate of training participation and management was most effective at implementing program elements such as environmental changes and improved policies and procedures. The results of the study revealed that without leaders and staff who embrace the significance of their role in preventing and managing workplace violence, the incidence would not improve (Gillespie, et al., 2014). Furthermore, “successful outcomes are predicted on programs implemented with full participation and support from all stakeholders” and are “supported by a work culture endorsing employee safety as a top priority” (Gillespie, et al., 2014, p. 591).

Martin & Daffern (2006) performed a study based on the assumption that a comprehensive and integrated organizational approach to patient aggression was required to increase staff confidence and perceptions of personal safety. The researchers surveyed clinicians’ perceptions of personal safety and confidence in managing patient aggression. A modified version of Thackrey’s (1987) Confidence in Coping With Patient Aggression Instrument was used for the purpose of assessing the impact of training on clinician confidence (Martin & Daffern, 2006). Findings concluded that nurses felt safe and confident in working with aggressive patients. Factors that impacted confidence included knowledge, experience and skill, management of aggression training, use of prevention and intervention strategies, and teamwork (Martin & Daffern, 2006). Organizational resources, policies, and frameworks were also concluded to support perceptions of safety and confidence in managing patient aggression. Martin & Daffern (2006) suggested

assessing confidence and perceptions of safety initially, prior to introducing interventions, and then repeating the assessment following the interventions.

### **Literature Review Summary**

The literature review revealed that workplace violence, as a result of violent patient behavior, is a frequent concern in ED settings. Common themes in the literature include underreporting, concerns about safety, a perception that violence is unavoidable and expected, and the importance of leadership to prevent and manage violence. Effective interventions suggested throughout the literature include the identification of patients with a history or risk of violence, use of de-escalation techniques, clear policy and procedures, and education and training. In conclusion, health care organizations need to acknowledge that workplace violence, as a result of patient violence, is a serious concern requiring evidence-based interventions to affect meaningful change.



## **SECTION III**

### **Needs Assessment**

Workplace violence is recognized as a serious and growing problem in the US by professional, regulatory and licensing organizations (Gillespie, et al., 2014). Hospital EDs are among the most vulnerable settings for workplace violence (ENA, 2015). Research reveals that workplace violence in health care settings has negative consequences for employees, which may include injury or acute stress reactions (Gillespie, et al., 2014). The ENA (2014) asserts “emergency nurses have the right to personal safety in the work environment,” “have a right to education and training related to recognition, management, and mitigation of workplace violence” and “ have the right and responsibility to report incidents of violence.” Comprehensive programs are recommended to support the position of ENA and other regulatory organizations that include a triad of policies, procedures and education (Gillespie, et al., 2014).

Workplace violence must be addressed at the organizational level with the adoption of zero-tolerance policies (Wolf, Delao, & Perhats, 2013). The North Carolina Department of Labor (2013) published Workplace Violence Guidelines also emphasizing the necessity of zero-tolerance policies for health care organizations. For the purpose of this DNP Project, two health care facilities were identified as project sites and were assessed. The assessment revealed that both facilities have an existing zero-tolerance workplace violence policy. The existing policy outlines strategies to support team members in providing a safe work environment (Novant Health, 2016). It also specifies that each facility, within the organization, will establish an “individualized action plan” on how to respond if or when violence occurs. Although the policy was adopted at each

facility, the project leader identified a gap between policy and practice. Individualized action plans are not in place. Organizational leaders, including the Director of Public Safety, were made aware that individual action plans were not in place. Due to the gap between policy and practice, the need for a standardized plan, including detailed procedures for responding to workplace violence, was necessary to promote safe working environments.

As part of the needs assessment, existing safety procedures were evaluated. The project sites share another policy called “Safety and Security Alert Procedures and Documentation” which contains a safety procedure called a “safety and security alert.” A “safety and security alert” is a “deliberate designation in a patient’s medical record to denote an imminent or potential danger or risk to patients, or team members by an individual based on past or present actions or behaviors” (Novant Health, 2015). The policy and procedure provide an additional layer of support in order to keep team members safe. It also provides a process for team members to follow in the situation of a positive screening for intimate partner violence or child abduction risk and for a patient assessment suspicious for abuse. The policy did not clearly address a patient who has a history of violence or becomes violent during their hospital encounter, although the policy purpose lists violence as an indication for the alert. This is a missed opportunity to prevent a violent event and increase team member safety, thus was identified as a gap in safety procedures.

The “Safety and Security Alert Procedures and Documentation” policy included a procedure for entering a “safety and security alert” in the electronic medical record (EMR). When the order is entered the nurse has an opportunity to give details about the

event in which the patient displayed violent behavior. The order then serves as an avenue for communication and awareness to public safety, providers, leaders, and other team members caring for the patient. The communication is in the form of an automatic print out to the public safety department and places a “flag” in the EMR. The EMR “flag” appears on every view of the patient’s medical record during their current encounter as well as future encounters. The “flag,” in this situation, can only be removed from the medical record with nursing consultation with public safety and nursing leaders. Initiation of the order provides team members with prior information and/or current safety and security information relevant to that specific patient in an effort to provide a safe environment (Novant Health, 2015). The order provides communication to all health care team members during the current visit and re-occurring visits via the EMR. Initiating the order and maintaining accurate information in the longitudinal medical record has the potential to mitigate future violent encounters in the health care environment.

There are gaps in practice regarding the “safety and security alert” order. A disconnect in the layout of the order could potentially cause a barrier in practice. The order entry did not require an indication for the alert, thereby not providing sufficient communication to public safety or other team members who have access to the order details. A need to update the order function to provide a distinct reason for the alert was identified. The policy owner and the Director of Public Safety agreed that the changes needed to take place in order to create a safer environment.

Also, in random audits of the EMR, it was found that nurses were choosing to “flag” the patient rather than place the order for the “safety and security alert.” Omitting the order does not provide communication to public safety and nursing leaders and is not

compliant with the current policy. Patient tracking through order management can be an effective way to identify previously violent patients and initiate prevention strategies with “at risk” patients (Gates et al., 2011).

The final solution in addressing a triad of interventions against workplace violence is education. Leaders can support their teams through education to potentially prevent violence, enhance communication to identify patients who are at risk for potential violence, and ensure team members are equipped with necessary resources and tools to respond when violence occurs (Copeland & Henry, 2017). Discussions with ED clinical nurse educators and ED nurse leaders (assistant nurse managers and managers) identified the need to provide guidance in caring for patients who show signs and symptoms of an escalating behavior based on the perceptions of ED nurses. The discussions focused on concerns of how nurses perceive their role as it relates to emergency nursing and caring for patients with violent behavior.

The Director of Public Safety and the Vice President of Emergency Services for the organization and project sites recognized an increase in violent patient behavior and reported an increase in team member injuries as a result. This information was revealed in meetings with each leader. To further investigate, the organization’s occupational health department shared data to reflect team member injuries in the two project sites for 2015 and 2016. In 2015, there were 105 team member injuries, 72% were a result of a violent patient episode. Out of the 105 injuries, 34% occurred in the ED. In 2016, 137 injuries were reported. Sixty-eight percent happened as a result of a violent patient and 51% occurred in the ED (Table 1). Reported team member injuries are increasing with a

greater proportion occurring in the ED. Data suggests the ED is becoming an increasingly dangerous place to work.

Table 1

*Team Member Injuries As a Result of Violent Patient Episodes*

Year	Number of Reported Team Member Injuries	Percentage of Total Team Member Injuries Resulting from Violent Patient Episodes	Percentage of Violent Patient Episodes Occurring in the Emergency Department
2016 (Jan-Dec)	137	68%	51%
2015 (Jan-Dec)	105	72%	34%

Data specific to the project implementation sites revealed that ED team members do not feel safe at all times while at work due to their involvement in caring for patients who are violent. Data were collected through a needs assessment survey (Appendix A). The survey was sent via email to team members in eleven EDs. Team member includes registered nurses, certified nursing assistants, paramedics, and medical unit receptionist. A total of 132 team members responded. Table 2 is a summary of the needs assessment survey results.

Table 2

*ED Needs Assessment Survey Summary (N=132)*

Question	Yes	No
Workplace violence is generally defined as physical assault, emotional or verbal abuse, threatening, harassing, or coercive behavior in the work setting that causes physical or emotional harm. Have you ever been a victim of workplace violence as a result of an aggressive or violent patient?	75%	25%

Have you ever had a patient threaten, grab, spit, and/or hit you?	85.5%	14.5%
Have you ever felt that your safety was at risk due to a patient's violent behavior?	76%	24%
Do you feel that workplace violence is "part of the job"?	56%	44%
Have you ever missed time at work due to an injury caused by a violent patient?	6%	94%
Do you feel that more can be done to prevent workplace violence?	75%	25%

---

The survey revealed that team members do encounter violence and perceive their position as unsafe. The project leader completed unit rounding to speak with team members on different occasions. Through rounding, the need to provide education was identified. Feedback from team members revealed that most are unaware of the "Workplace Violence" or "Safety and Security Alert Procedure and Documentation" policies or the correct processes using the "safety and security alert".

In conclusion, a need was identified to update the "Workplace Violence" and "Safety and Security Alert" policies and procedures to reflect best practice. Additional opportunities identified from the assessment include the need to make enhancements to the "safety and security alert" order and provide education to team members about each change. The recommended triad of interventions to include policy, procedure, and education was identified as a need in the EDs of the project sites.

### **Population**

Although outcomes of the DNP Project may affect all team members within the health care system, ED team members at two acute care facilities were the initial targeted

audience for the DNP Project. Two of the organization’s largest EDs were chosen as the project sites. The project sites included a 921-bed tertiary medical center and 622-bed tertiary medical center located in the southeastern part of the United States. There are approximately 600 ED team members employed in the emergency departments including full time, part time, and PRN registered nurses, paramedics, certified nursing assistants, physicians, physician assistants, nurse practitioners, and medical unit receptionists. All 600 team members were invited to participate in the DNP Project.

### **Sponsor and Stakeholders**

This DNP Project impacted multiple stakeholders at the implementation sites. The primary targeted stakeholders were the ED team members. In addition, nursing administration, organizational leadership, clinical education, EMR analysts, and organizational public safety services were active stakeholders in the design and implementation of the project.

### **Organizational Assessment Using a SWOT Analysis**

An analysis of the project site’s strengths, weaknesses, opportunities and threats (SWOT) provides information to support the project’s development. A SWOT analysis is provided in Table 3.

Table 3

#### *SWOT Analysis For Project Site In Relation To Workplace Violence*

Strengths	Weaknesses
<ul style="list-style-type: none"> <li>• Existing workplace violence policy</li> <li>• Existing “Safety and Security Alert” policy</li> <li>• Existing “Safety and Security Alert”</li> </ul>	<ul style="list-style-type: none"> <li>• “Workplace Violence” policy missing action plan (procedure)</li> <li>• “Safety and Security Alert” policy protocol does not focus on violent</li> </ul>

<ul style="list-style-type: none"> <li>• procedure established within EMR</li> <li>• Leader support</li> <li>• Team members use “Safety and Security Alert” “flag” in EMR</li> <li>• Clinical education department</li> <li>• EMR department accepts requests for</li> </ul>	<ul style="list-style-type: none"> <li>• patient.</li> <li>• Utilization of “Safety and Security Alert” order</li> </ul>
<p>Opportunities</p> <ul style="list-style-type: none"> <li>• Research reveals safety interventions can decrease the incidence of team member injuries</li> <li>• Joint Commission Sentinel Event Alert requires implementation of safety interventions that address patient violence</li> </ul>	<p>Threats</p> <ul style="list-style-type: none"> <li>• Organizational leaders working in silos to address workplace violence</li> <li>• Organizational leadership politics</li> </ul>

### **Available Resources**

A variety of resources were utilized during the planning, implementation, and evaluation of the DNP Project. Support from organizational leaders was vital for policy changes. The contribution of knowledge, expertise, and approval from leaders, nurse managers, assistant nurse managers, were identified resources. Support and partnership from the organization’s public safety department was also identified for implementation of policy changes and procedures. The most complicated resource was found to be support from the EMR team. The project’s organization includes an independent department that manages the entire operation of the EMR. Support and willingness to make changes from this resource was vital to the project’s success.

### **Desired Outcomes**

The desired outcome for the DNP Project was determining whether evidence-based interventions would improve confidence and the perception of safety of team



members working in the emergency department who care for patients with violent behavior. The interventions included policy updates, enhancements to procedures, and education. The project also compared and correlated levels of perceived confidence with specific demographic variables. Another outcome was to enhance procedures for decreasing workplace violence, as evidenced by the increased use of a “Safety and Security Alert” order.

### **Team Selection**

The individuals chosen to participate and contribute to the success of the DNP Project include a variety of health care professionals. Nursing directors, a nurse scientist, EMR team members, team members from public safety, and ED leaders of the project site were chosen. Each contributed, in some capacity, in the planning, implementation, and completion of the project.

### **Cost Analysis**

The cost of the project is included in the current organizational budget as a result of the projected team member salaries. The estimated cost of each team member to contribute to assigned responsibilities is included in the direct costs.

Table 4

*Direct and Indirect Cost of Project Work*

Budget Item	Description	Estimated Total	Currently Integrated Into Facility Operation Budget (yes/no)
Direct costs			
Salary-Registered nurse who processes policy changes	Registered nurse Average salary \$35.00/hour Estimated hours processing time =	\$140.00	Yes

	4 hours		
Salary- EMR analyst	EMR Analyst Average salary= \$40.00/hour Estimated time of data collection = 4 hours	\$160.00	Yes
Salary – EMR team member	EMR Team Member Average salary \$40.00/hour Total meeting time = 15 hours (\$600.00) Total time assisting with EMR changes (order changes and functionality updates) = 8 hours (\$320.00)	\$920.00	Yes
Indirect costs Communications	1 Clinical Nurse Educator (First-to- Know Editor) Average salary= \$35.00/hour Estimated time for meeting and publishing education = 1 hour meeting, 2 hours to publish	\$105.00	Yes

---

## **SECTION IV**

### **Goals**

The intent of this project was to create a safer environment for nurses working in the ED. The goal was to change policy, change procedures and educate team members. The components of each intervention were steps to improve communication amongst team members and enhance safety.

### **Objectives**

The first objective of the DNP Project was to improve the confidence and perception of safety among ED team members through the implementation of evidence-based interventions. Interventions include updates to policies, procedure enhancements and education. The second objective was to enhance procedures for decreasing workplace violence, as evidenced by the increased use of a “Safety and Security Alert” order.

### **Mission Statement**

Workplace violence, as a result of violent patient behavior, is a problem in health care and particularly in EDs. This DNP Project’s intent was to improve ED team member’s confidence and perception of safety through the implementation of evidence-based interventions that include clear policies, procedures, and education. The triad of interventions is intended to influence confidence and the perception of team member safety by providing awareness and support to those who are in the front line of patient care.

## SECTION V

### Theoretical Underpinnings

Conceptual models serve as a vehicle to provide perspectives and present an understanding of a phenomenon by reflecting an assumption or philosophical view (Polit & Beck, 2017). The Haddon matrix originated from Dr. William Haddon Jr. and was created to serve as a conceptual model. The original Haddon matrix addresses the problem of traffic safety and injury prevention. The original model provides a framework for understanding the origins of injury prevention and identifies numerous elements to address the problem (Runyan, 1998). The matrix combines concepts of host-agent-environment as a focus of change with the ideas of primary, secondary, and tertiary prevention (Runyan, 1998). Factors defined in the matrix refer to interacting factors that contribute to a process.

Similar to the work completed by Gates, et al. (2011), the Haddon matrix is used for the purpose of this practice project. The Haddon matrix can be used to identify and categorize factors and intervention. The Haddon matrix combines concepts of the host, agent/vehicle, and environment with the concepts of primary, secondary, and tertiary prevention, to identify and categorize intervention strategies as it relates to the reduction of violent patient episodes (Ramacciatie, Ceccagnoli, Addey, Lumini, & Rasero, 2016). In the Haddon matrix (Table 4), the host are factors associated with the health care worker (team member) who is susceptible to physical and psychological injury, the agent or vehicle are patient or injury-producing factors, and the environment includes the physical environment and the social environment. The matrix also identifies intervention strategies such as modification in policies and procedures for preventing violence

perpetrated by patients (primary prevention), during (secondary prevention), and after (tertiary prevention) an assault. Application of the Haddon Matrix for workplace violence, table 5, provides a description of the problem in an all-inclusive way.

Table 5

*The Haddon Matrix and Workplace Violence*

Phase	Host (Team member factors)	Agent/Vehicle (Patient factors)	Physical & Social Environment
Primary Prevention (Pre-event)	<ul style="list-style-type: none"> <li>• Education &amp; training</li> <li>• Locate safety &amp; security alert</li> <li>• Assure safety &amp; security alert order updated (re-ordered)</li> <li>• Communicate with public safety</li> <li>• Behavior de-escalation and conflict resolution</li> <li>• Managing behavior</li> </ul>	<ul style="list-style-type: none"> <li>• Search belongings if needed</li> <li>• Communicate plan of care while in department and expectations during visit</li> <li>• Minimize anxiety through communication</li> <li>• Keep door open</li> </ul>	Triad of Interventions: <ul style="list-style-type: none"> <li>• Policy: modify organization’s “Workplace Violence” and “Safety &amp; Security Alert” policy</li> <li>• Procedure: partner with organization’s EMR team to modify safety &amp; security alert order and enhance nursing notifications to reflect best practices around patients who act violently</li> <li>• Education: provide education to ED team members on workplace violence and updated policies and procedures</li> </ul>
Secondary Prevention (Violent event)	<ul style="list-style-type: none"> <li>• De-escalation techniques</li> <li>• Restraints</li> </ul>	<ul style="list-style-type: none"> <li>• Isolate patient from others</li> <li>• De-escalate</li> <li>• Medicate</li> <li>• Restrain</li> </ul>	
Tertiary Prevention (Post-event)	<ul style="list-style-type: none"> <li>• Reporting</li> <li>• Debriefing</li> <li>• Enter safety &amp; security alert order</li> <li>• First aid</li> </ul>	<ul style="list-style-type: none"> <li>• Ensure safety</li> <li>• Provide comfort</li> <li>• Disposition to appropriate level of care</li> </ul>	

## SECTION VI

### Project Plan

This DNP Project design focused on a triad of events that included policy, procedures, and education as recommended in the literature. The ENA (2011) recommends the presence of a zero-tolerance policy, as there are lower odds of physical violence and verbal abuse when such policies are in place. The American Nurses Association (ANA) (2015) endorses a zero-tolerance policy in a position statement on workplace violence. Prior violence is a strong indicator of future violence (Kowalenko, et al., 2012). Procedures in place that provide staff with clear, actionable steps to manage patients at risk for violence aids in prevention and serves as another level of safety (Kowalenko, et al., 2012). Education is needed in order for staff to help promote a safe work environment thru primary, secondary, and tertiary prevention strategies.

The triad of interventions was planned and carried out in an organized approach. A project plan (Appendix B) and timeline (Appendix C) were approved by the nursing leaders in the organization and the University's project chair. Once the project plan was approved, the Institutional Review Board (IRB) approval was obtained both from the organization and the University. No more than minimal risk or anticipated harm to the participants was identified and therefore the evidence-based practice project met the criteria of exempt status.

The "Workplace Violence" and "Safety and Security Alert Procedure and Documentation" policies were identified as needing improvements. Due to lengthy time lines and multiple steps required to make organizational policy changes, planning began early to assure project implementation dates and policy go live dates aligned. Steps in a

policy change involved meeting with stakeholders and content experts. During meetings with the Workplace Violence policy owners, the project leader was not given permission to make changes. Instead, the Workplace Violence policy owner appointed a team member with whom the project leader was asked to collaborate. The project leader was not able to control the progress of the Workplace Violence policy changes but instead, initiated meetings throughout the planning phase to assess progress. Once finalized, the “Workplace Violence” policy will contain the following critical elements: clear steps for team members to follow in the prevention, management of, and following workplace violence. It will include resources for team members, leaders to contact, and the steps in reporting violent events.

The “Safety and Security Alert” policy owners offered support and granted the project leader permission in making necessary changes. Changes included updating the policy scope and purpose to address a patient at risk or with a history of violent behavior. The other change involved updating the procedure steps in placing the order and activating the “safety and security alert.”

After multiple meetings, next steps included contacting the organization’s policy and procedure department and requesting a drafted, working copy of the “Safety and Security Alert” policy. Once the edits were made, the policy had to be approved through several different groups. After approvals and continuous editing, the policy was displayed at a centralized, online location for others to view and provide further comments and recommendations. The policy was then returned to the project leader for final editing. At the completion of the final edits, the policy and procedure department assigned a go live

date. It is estimated that this entire timeline from initial conversations to a go live date was approximately 40 weeks.

Early in the planning phase, the project leader contacted the organization's electronic medical record (EMR) department. There were two purposes for contacting this group. One included a request for a data report. At the time, EMR data reports offered real time data regarding compliance in "Safety and Security Alert" order placement. Historical data was needed for pre and post implementation purposes of the DNP Project. The second purpose was to request enhancements and changes in the "Safety and Security Alert" order. In order to make any changes to the EMR, or request a new data report, a tedious approval process had to take place. The request for order changes and for a new data report was made approximately one year prior to project implementation. Executive leaders had to approve the requests in order for the changes to be prioritized. A multitude of meetings between the EMR leaders and analysts were scheduled over the course of a year in order to adhere to the project's timeline and assure the changes were aligned with policy changes and go live dates.

During the planning phase, meetings took place between the project leader and leaders of the DNP Project sites. Meetings occurred via phone, email, and face-to-face conversations. Discussions involved project purpose, time line, and expectations.

Project planning included working with the project site's nurse scientist who assisted with the preparation and creation of pre and post implementation surveys. Project planning also involved creating evidence-based education that reflected current practice, evident through the policy and procedures. The education concentrated on the purpose and content of the Workplace Violence policy, highlighting the importance of reporting.



Education also included changes to the “Safety and Security Alert” policy and order. Planning continued and focused on the distribution of the education to ED team members via a corporate online, computer-based learning newsletter, an ED specialty newsletter, and face-to-face team huddles. The education created by the DNP Project leader was distributed to clinical nurse educators for feedback. The education was then sent to editors of the corporate online newsletter for publishing. The education was placed in an ED specialty newsletter for distribution to team members. The project leader scheduled a time to attend team huddles during various days for both project sites. The purpose of attending team huddles included face-to-face distribution of the same education used in the newsletters.

## **SECTION VII**

### **Evaluation Plan**

Evaluation is used to assess programs or initiatives to maximize and demonstrate value to the organization (Kirkpatrick, 2016). The DNP Project included a quantitative, educational, pre-post implementation survey evaluation design. The DNP Project was designed to implement a three-prong evidence-based intervention through updated policy, procedures, and education. After IRB approval from the facility and the University, but prior to implementation of the DNP Project, baseline data was collected. Data was collected from team members at baseline and post-implementation.

All ED team members were sent an email link to a pre-implementation survey via SurveyMonkey (Appendix D). Completion of the pre-implementation survey was optional. The survey assessed team member confidence and perception of safety in the workplace utilizing the "Confidence in Coping with Patient Aggression Instrument," also known as "Therapeutics for Aggression Tool." Thackrey (1987) originally used the "Confidence in Coping with Patient Aggression Instrument" to assess clinician confidence in coping with patient aggression, while also evaluating the immediate and long-term effects of a training program. The reliability of the tool was demonstrated by a Cronbach alpha of 0.92 (Thackrey, 1987). To establish the validity of the instrument, an initial pool of items that focused on different aspects of the hypothesized domain were tested on a diverse group of expert professionals. Revisions to the original items were then tested on the second group of expert professionals to further test validity. Finally, a factor analysis of the items was completed, establishing that the instrument had a high degree of internal consistency and precision. This tool, used with permission, contains ten

self-assessment questions using a Likert scale from 1 to 11. The pre-implementation survey also requested demographic information (Appendix E). Descriptive and correlational statistics were used to determine whether there is an association between sex, team member roles, years of experience, shifts worked, and for nurses, level of education and the scores of confidence. Differences in scores between the demographic groups were compared using independent t-tests and analysis of variance (ANOVA).

In addition to the team member survey, a retrospective de-identified aggregate data analysis was conducted from the electronic medical record. The data points were generated from the EMR and assessed baseline ED team member compliance with the placement of a “Safety and Security Alert” order on the medical record and placement of an alert “flag” on the medical record. Team members should initiate both (the order and the flag) as indicated per policy. This data analysis was conducted on de-identified patient care dashboards, available through the electronic medical record, for the 2 weeks prior to implementation of the project. The dashboard does not include any patient identifiers. The data analysis determined the percentage of patients who were identified by a “Safety and Security Alert” “flag” that actually had a “Safety and Security Alert” order.

After completion of DNP Project implementation, all ED Team Members were sent an email link to a post-implementation survey via SurveyMonkey (Appendix F). The survey assessed confidence and perception of safety in the workplace utilizing the “Confidence in Coping with Patient Aggression Instrument,” also known as “Therapeutics for Aggression Tool.” The post-implementation survey also requested demographic information (Appendix E). Descriptive and correlational statistics were used

to determine whether there is an association between sex, team member roles, years of experience, shifts worked, and for nurses, level of education and the scores of confidence. Pre and post implementation data were compared.

After implementation of the DNP Project, a retrospective de-identified aggregate data analysis was conducted from the medical record. The data points were generated from the EMR and assessed ED team member compliance with the placement of a “Safety and Security Alert” order on the medical record and placement of an alert “flag” on the medical record. This data analysis was conducted on de-identified patient care dashboards, available through the electronic medical record, for the 2 weeks post implementation of the project. The data analysis determined the percentage of patients who were identified by a “Safety and Security Alert” flag that actually had a “Safety and Security Alert” order.

### **Logic Model Development**

A logic model was created during the DNP Project-planning phase (Appendix G). The model provided a visual to show relationships between the different project components. The model also offered an indication of how the results would unite in order to meet the project objectives.

## **SECTION VIII**

### **Project Implementation**

Upon IRB approvals from the organization and University, pre-implementation data was collected to establish a baseline. Pre-implementation data was collected by the distribution of a survey via SurveyMonkey, an electronic survey software platform, (Appendix F) to assess team member confidence and perception of safety related to workplace violence. Pre-implementation data also included a data analysis conducted from the EMR by an EMR analyst.

Once baseline data was collected, the DNP Project began. Phase one focused on policy updates and included updating two existing organizational policies to reflect evidence-based recommendations in the prevention, event of, and following workplace violence. The “Workplace Violence” policy states that each facility within the organization will have an action plan to manage workplace violence. No action plans existed at either facility. A standardized action plan will be developed and reflected in an updated policy. The policy updates were not completed before the DNP Project implementation phase; therefore, the current policy was used during implementation. The “Safety and Security Alert Procedure and Documentation” policy provides a process called “Safety and Security Alert” for team members to access prior safety information on current patients to provide a safe environment. The policy was updated to reflect patients at risk or with a history of violence and included step-by-step guidance in placing a “Safety and Security Alert” order. Policy updates were made in collaboration with policy owners and the corporate policy team.

Phase two of the DNP Project focused on procedural updates. The updates included the addition of two revisions in the “Safety and Security Alert” order within the EHR. The first revision included a prepopulated list of reasons embedded in the order. The reasons reflect policy and are included in the communication sent to public safety via the order entry. The second revision is a red explanation mark beside the pre-populated reasons. The red explanation mark symbolizes a reason is required to complete the order. The updates were made by EMR team members.

Phase three of the DNP Project was comprised of education for team members. Education included evidence-based recommendations before, during, and following workplace violence, particularly in the event of violent patient behavior. The “Workplace Violence” policy was referenced for this portion of the education. The remaining education provided information about the “Safety and Security Alert Procedures and Documentation” policy. It included steps to follow in placing a “Safety and Security Alert” order, a “Safety and Security Alert” “flag,” and the significance in each. In addition to policy review, education involved procedural updates to the EMR. Education was provided via a monthly corporate ED newsletter and a monthly corporate computer based, on-line learning newsletter. In addition to the newsletters, the DNP Project leader provided the education during regularly scheduled department huddles at the project sites. The education was in a PowerPoint format and used in the newsletters and presented during department huddles. Huddle interactions were the only form of direct ED team member contact during the project implementation. The experience provided face-to-face interaction and stimulated conversations and questions. Approximately 100 team members participated in the huddles. Each huddle took about 15 minutes.

After the project implementation, post assessment data were collected. The same survey instrument (Appendix F) was administered again to assess team member confidence and perception of safety related to workplace violence. The pre and post implementation data were analyzed with the assistance of the organization's nurse scientist. Data were exported from SurveyMonkey to IBM® Statistical Package for the Social Sciences® (SPSS) and descriptive and correlational statistics were extracted. The second form of data collection assessed compliance in the placement of a "Safety and Security Alert" order compared to an "alert flag" activation within the medical record.

### **Threats and Barriers**

One barrier to the DNP Project implementation was the inability to facilitate all policy changes within the project's timeline. A gap in the project site's corporate Workplace Violence policy was identified early in the project's needs assessment. The Human Resources department owns the policy and preferred to make the changes suggested by the literature and proposed by the project leader and content expert. Because the policy had yet to be updated, the DNP Project leader used the current policy during implementation. The DNP Project leader and Director of Public Safety will continue to collaborate with Human Resources to assure policy changes will reflect evidence-based recommendations in the prevention, management of, and following workplace violence.

The DNP Project's implementation time frame was only two weeks. This barrier was due to delays in IRB approval, policy readiness, and completion of EMR order enhancements. There are approximately 600 team members between the two project sites. Limited implementation time, coupled with a large number of team members affected,

reduced the amount of face-to-face education offered. The short implementation period also reduced the amount of time that team members were given to read the education in the newsletters.

Another barrier identified during the DNP Project was the unfortunate ability for the EMR team to complete requests within the project's time frame. Although the project site's EMR team members were collaborative and attentive, they were not able to complete the original requests of the project leader. A year prior to the projected project completion date, the project leader began meeting and conversing about ideas and possibilities with the EMR team. Initially, EMR team members were hopeful and offered extensive additions to the "Safety and Security Alert" order. As the project matured and other priority initiatives came about within the organization, the EMR team could only make limited enhancements to the "Safety and Security Alert" order function. The possibility of this barrier was identified early in the project.

### **Implementation Summary**

Implementation of the DNP Project was carried out in three phases. Phase one focused on policy updates. The policy was updated to reflect patients at risk or with a history of violence and included step-by-step guidance in placing a "Safety and Security Alert" order. Policy updates were made in collaboration with policy owners and the corporate policy team. Phase two involved procedural updates and included the addition of two revisions in the "Safety and Security Alert" order within the EHR. Both additions are enhancements to the order function and involve adding a reason for the order entry. Phase three was the dissemination of policy and procedure education to ED team members.



## SECTION IX

### Results

Two forms of data collection were used for the DNP Project. A pre and post project implementation survey (Appendix F) was sent out to ED team members to assess the level of confidence and perception of safety related to violent patient behavior and workplace violence. The pre-implementation survey provided baseline data so that post-implementation survey results could provide comparison data. The second form of data collection assessed ED team member compliance with the “Safety and Security Alert” order entry. This data were also collected pre and post-implementation of the DNP Project.

Pre and post implementation data collection included ED team member survey results. Approximately 600 ED team members were sent an email link to a pre and post-implementation survey via SurveyMonkey. The survey, “Confidence in Coping with Patient Aggression Instrument” by Michael Thackrey (1987), assessed team member confidence and perception of safety in the workplace. A Cronbach’s Alpha was processed to assess the reliability in Thackrey’s “Confidence in Coping with Patient Aggression” instrument. The Cronbach’s Alpha was 0.936, implicating that the instrument is reliable.

A total score was calculated from the survey questions using a linear sum of questions 1-10; lower and higher totals represented lesser and greater confidence. The total score could range from 0 to 110 (lesser to greater confidence). Descriptive and correlational statistics were run on the results and the IBM® SPSS® was used to analyze the data.

Table 6 compares pre and post-implementation data to include the mean of the total scores, standard deviation (SD), and the range.

Table 6

*Comparison of Pre and Post-Implementation Total Scores*

	N	Mean	SD (+/-)	Range
Pre-Implementation	102	62	22	13-110
Post-Implementation	45	63	27	12-107

Table 7 displays the mean and standard deviation for each survey question pre and post project implementation. These averages are based on the Likert scale of 1-11. Team member perception of safety was measured by looking at the single survey question about safety.

Table 7

*Mean and Standard Deviation of Each Survey Question*

Survey Question	Pre Mean	Pre SD (+/-)	Post Mean	Post SD (+/-)
Comfort With Aggressive Patient	6	3	6	3
Level of Training for Psychological Aggression	7	3	7	3
Ability to Intervene Physically	6	3	6	3
Self-Assurance	6	3	6	3

Ability to Intervene Psychologically	7	3	7	3
Level of Training for Physical Aggression	6	3	7	3
Safety	5	3	5	4
Effectiveness of Techniques	6	3	6	3
Ability to Meet the Needs of Aggressive Patient	6	3	6	3
Ability to Protect Self	6	3	6	4

The pre and post implementation survey included demographic information.

Table 8 displays demographic data from the survey sample for the pre and post-implementation survey.

Table 8

*Demographic Statistics of the Sample*

Variable	Pre (N=102) n	Pre (%)	Post (N=45) n	Post (%)
Sex				
Male	21	23	10	22
Female	72	77	33	73
Primary Role				
Registered Nurse	46	52	22	49
Certified Nursing Assistant	15	15	6	13
Paramedic	3	3	1	2
Medical Unit Receptionist	4	4	3	9
Physician	14	15	6	16
Physician Assistant	5	5	1	2
Nurse Practitioner	3	3	3	7

Years of Experience				
5 Years or Less	40	41	19	42
6-15 Years	35	36	18	40
16-25 Years	13	16	5	11
26 or Greater Years	5	6	3	7
Nurse: Highest Level of Education				
Associate Degree in Nursing (AND)	17	19	8	18
Bachelor of Science in Nursing	31	32	12	27
(BSN)	3	5	3	7
Master of Science in Nursing	7	8	5	11
(MSN)				
Other Graduate Level in Nursing				
Primary Shift Worked in ED				
Daytime	43	42	23	51
Evening	23	23	10	10
Nights	27	27	10	10

Pre and post implementation survey total scores were normally distributed; therefore parametric statistical analysis was used to compare the scores between groups. The first group compared male and female total scores. T-tests were used for both pre and post implementation analysis. When comparing groups to male or female, there was no statistical significance (pre-implementation  $t = 0.166$ ,  $p = 0.869$  and post-implementation  $t = -0.781$ ,  $p = 0.44$ ).

The next category included comparing scores between job roles in the ED and the confidence in coping with aggressive patient behaviors. Analysis of variance (ANOVA) was used. In both the pre and post implementation surveys, there was statistical significance between the different roles (pre-implementation  $F = 3.959$ ,  $df = 6$ ,  $p = 0.002$ , post-implementation  $F = 3.543$ ,  $df = 6$ ,  $p = 0.008$ ). Table 9 displays the job roles in comparison to the total score mean, standard deviation, and range. Nurse practitioner total confidence scores improved the most from pre to post-implementation (pre-

implementation mean 61, post implementation mean 85). Physician Assistant's scores dropped the most (pre-implementation 66, post implementation 34).

Table 9

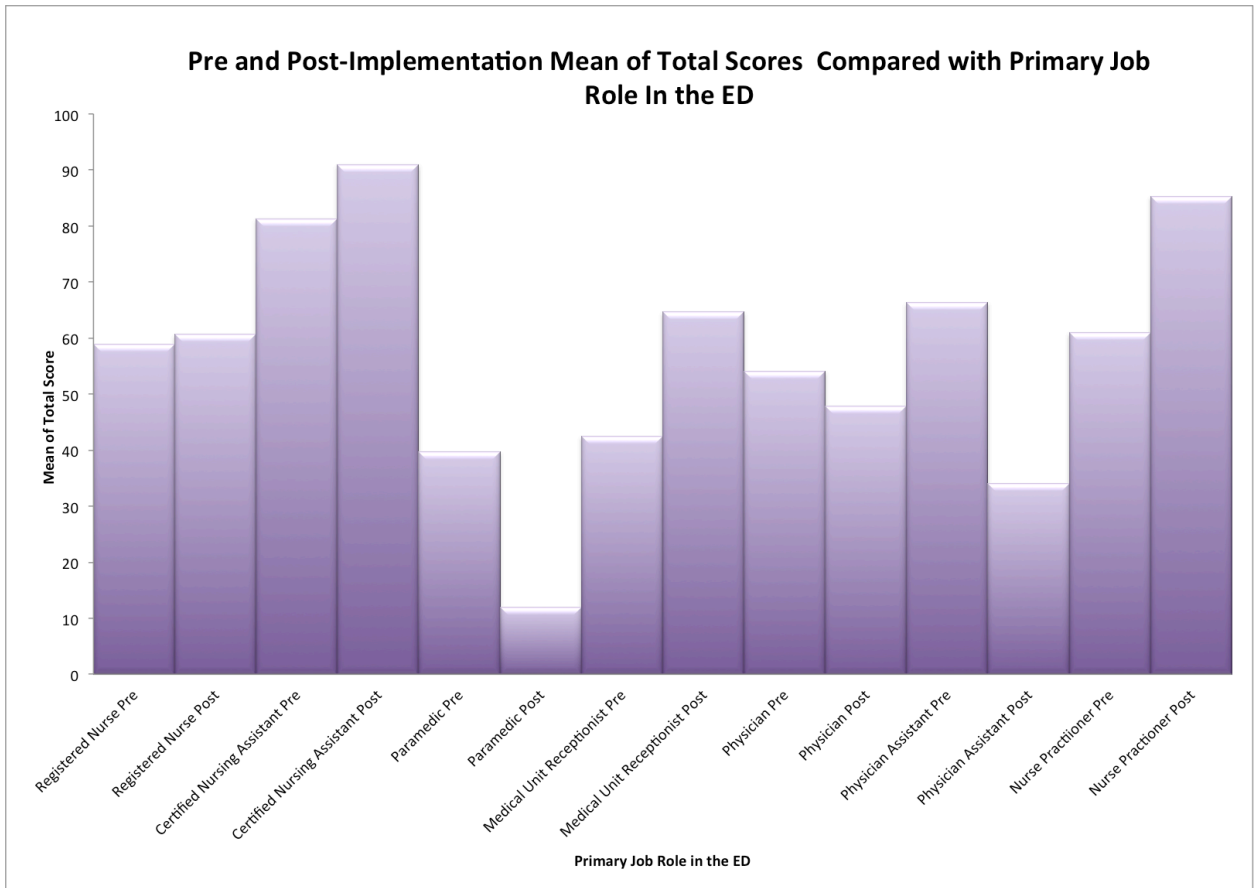
*Mean, Standard Deviation, and Range For Job Roles in the ED*

	Pre Mean	Post Mean	Pre SD (+/-)	Post SD (+/-)	Pre Range	Post Range
Registered Nurse	59	61	22	26	13-101	15-98
Certified Nursing Assistant	81	91	19	17	48-110	60-107
Paramedic	40	12	24		18-65	12-12
Medical Unit Receptionist	43	65	15	30	21-56	31-87
Physician	54	48	15	13	25-71	31-70
Physician Assistant	66	34	24		43-97	34-34
Nurse Practitioner	61	85	11	5	52-73	81-90

Figure 1 displays the mean of total scores compared with primary job roles worked in the ED. Figure 1 is pre and post-implementation. In both pre and post-implementation surveys, certified nursing assistants were the most confident and paramedics were the least confident among the roles.

Figure 1

*Pre and Post-Implementation Mean of Total Scores Compared With Primary Job Role In The ED*



Experience in the ED was evaluated next. ANOVA was used to compare scores between groups with different categories of experience in the ED and neither pre nor post-implementation assessment data was statistically significant (pre-implementation  $F = 1.494$ ,  $df = 3$ ,  $p = 0.222$ , post-implementation  $F = 2.671$ ,  $df = 3$ ,  $p = 0.062$ ). Next, scores between groups of nurses with different education levels were compared using ANOVA. This was also not statistically significant findings (pre-implementation  $F = 0.185$ ,  $df = 3$ ,  $p = 0.906$ , post-implementation  $F = 1.333$ ,  $df = 3$ ,  $p = 0.289$ ). Finally, ANOVA was used to evaluate whether there was differences in scores between work

shifts and there was no statistical significance indicated (pre-implementation  $F = 2.2$ ,  $df = 2$ ,  $p = 0.116$ , post-implementation  $F = 0.466$ ,  $df = 2$ ,  $p = 0.631$ ).

To assess the secondary intended outcome of the DNP Project, a retrospective assessment of de-identified aggregate data was obtained and analyzed from the EMR. The assessment took place two weeks pre-implementation and two weeks post-implementation of the DNP Project. The data was collected through the EMR software by an EMR data analyst. Data was collected to assess ED team member compliance with the placement of a “Safety and Security Alert” order on the medical record and placement of an “alert “flag” on the medical record. There was not a significant improvement in compliance with placing the “Safety and Security Alert” order post-implementation.

Table 10 provides a comparison of the data.

Table 10

*ED Team Member Compliance With “Safety and Security Alert” Flag and Order*

	Number of Encounters (n)	Percentage of Encounters “Alert Flag” With a Safety and Security Alert Order	Percentage of Encounters “Alert Flag” Without a Safety and Security Alert Order
Pre-Implementation	162	27%	73%
Post-Implementation	156	21%	78%

Table 11

*ED Team Member Compliance With Safety and Security Alert Flag and Order-Separated*

*By Facility*

	921-bed tertiary medical center	622-bed tertiary medical center
Pre-implementation number of encounters (n)	80	82
Post-implementation number of encounters (n)	69	87
Pre-implementation “alert flag” with a “safety and security alert” order	23%	32%
Post-implementation “alert flag” with a “safety and security alert” order	23%	20%
Pre-implementation “alert flag” without a “safety and security alert” order	78%	68%
Post-implementation “alert flag” without a “safety and security alert” order	75%	80%

**Interpretation of Results**

As a result of this project, a health care system has an awareness of a national problem and has interventions in place to move the organization towards larger solutions. The project work implemented evidence-based practice recommendations that include changes to policy, procedures, and education. This project executed policies and procedures to protect team members and provide a safe working environment. The project laid a foundation for future work and ignited leaders to understand the significance of workplace violence as a result.



The statistical results of this project indicate a minimum to no impact in the confidence or perception of safety among ED team members. Pre and post-implementation total scores reveal a one-point improvement in total scores of confidence. There was no improvement in scores of the pre and post-implementation safety question. There was considerable variability in scores as evidenced by the pre and post implementation ranges. Sex, years of experience, or the shift worked does not have statistical significance related to team member confidence or perception of safety. There was not statistical significance related to the level of education achieved by nurses. There was statistical significance related to the job class of ED team members and the level of confidence or perception of safety.

Interpretation of the results, for both DNP Project sites, indicates a minimum to no improvement in team member compliance with placing a “safety and security alert” order. One project site showed no improvement, in fact, worsened. The other, larger project site stayed consistent with no change in compliance with a “safety and security alert” order and alert “flag” in place and had a 3% improvement of EMRs with an alert “flag” that do not have a “safety and security alert” order.

### **Limitations**

Limitations identified were a large number of ED team members included in the project’s population. The large number created a challenge with communication, distribution of the surveys, and distribution of the education. Email and an online newsletter were helpful in distributing messages to large numbers but there was no reassurance the team members received the information. Providing face-to-face education to a large number of team members was also a challenge due to another limitation, which

included a time constraint on the project's implementation. Team members, affected by the project, work all shifts and may not work everyday. Trying to assure face-to-face time with each team member was also a challenge and created a limitation in the project. The providers that work in the ED do not attend the huddles nor do they have access to the online, corporate newsletter, therefore, only received communication and education via email. This was another limitation. The pre and post implementation surveys were not paired so that a comparison between pre and post-surveys could be analyzed. In fact, there was no way to determine whether the same participants did or did not participate in the pre and post-survey. Additionally, the small sample size that responded to the surveys may not be indicative of the responses for the organization. Another limitation includes post-implementation data was reported only for a two-week period. Further data collection at time points over the next six to twelve months will continue to measure impact. The final limitation of this project was the lack of clinical nurse educator support during the implementation phase. There are approximately 81 miles between the two project sites, which was a challenging distance for the project leader to travel regularly. The project leader did not involve an additional educator in the implementation phase; yet, this would have been beneficial in providing face-to-face education during huddles. Including clinical nurse educators would have added value to the project in their ability to round on the units occasionally but also, in their involvement with new team members and manager support.

## **Discussion**

The objective of the DNP Project was to improve the confidence and perception of safety amongst ED team members through the implementation of evidence-based

interventions. Implementation of policy revisions, procedure updates, and education made a minimal impact on the confidence and perception of safety amongst ED team members. The DNP Project results concur with other published studies in that findings were inconclusive regarding the effectiveness of education and training on violence prevention (Gacki-Smith et al., 2009).

The pre and post implementation surveys assessed ED team member confidence in caring for an aggressive patient. The surveys contained a question particularly asking “how safe do you feel around an aggressive patient” (Thackrey, 1987, p. 58). Team members scored the lowest on both pre and post implementation surveys (a score of 5, on a Likert scale of 1-11, for both pre and post-implementation). This finding perhaps, reveals that ED team members do not feel safe during violent events that involve aggressive patients. Additional information is needed in order to understand reasons for not feeling safe. Various studies consistently indicate that health care workers do not feel safe and are concerned about violence and vulnerability in the workplace (Gacki-Smith et al., 2009). Perception of team member safety and the incidence of violence are interrelated. Literature suggests having policies and procedures in place to support team members and provide a sense of safety (Gates et al., 2011; Gilliespie et al., 2014; Martin & Daffern, 2006). To address the perception of safety, improved communication through “flagging” or tracking of patients, who have a history of violence, is encouraged (Gates et al., 2011). Both, updated policies and procedures and an intervention to improve communication, were implemented as part of the DNP Project. Lack of improvement in the perception of safety and minimum improvement in overall scoring could be related to changes in the environment that could not be visibly detected or obvious. Another reason

could be that team members did not experience violent patient behavior during the two-week project implementation so they could not apply the new changes. Solórzano-Martinez (2016) found that health care personnel have an increased perception of safety when enhanced security measures are in place including quick response times by public safety officers as well as, appropriate security equipment. Perhaps, enhanced security features and support from the public safety department would improve the perception of safety amongst team members. Another approach could include a reduction in the incidence of violent patient behavior through comprehensive program components. Comprehensive programs include a multitude of interventions that address violence through prevention and management. Gates et al. (2011) suggest examining policies, enhancing staff education and training, and improving communication between patients and staff as prevention strategies. Management during and after violent episodes suggested the use of public safety, nonviolent crisis intervention techniques, de-briefing, and reporting (Gates et al., 2011). ENA (2014) suggested a comprehensive program and created a “Workplace Violence Toolkit” to support ED leaders. The toolkit includes steps for an organization to evaluate the ED and develop measures to improve security and safety (ENA, 2010). Comprehensive programs take place over longer periods of time and include a multitude of stakeholders. A more comprehensive approach, with fewer restrictions in completion time, may also improve team member’s perception of confidence and safety. Additional research is recommended to focus on the effectiveness of education, the usefulness of various security measures and environmental controls, and best practices for reducing ED violence and improving the perception of safety (Gacki-Smith et al., 2009).

The DNP Project results found statistical significance in the relationship between ED team member roles and the level of confidence in coping with patient aggression. In both pre and post-implementation surveys, certified nursing assistants scored the most confident and paramedics the least. This finding can help prioritize future interventions. Although nurses are more likely to receive greater offerings of education and training than other roles, certified nursing assistants are thought to have more exposure to patients with violent behavior. The possible reason for an increased exposure is due to the one-on-one sitting requirements, at the DNP Project sites, for patients with certain behaviors or risk of behaviors, including violence. Certified nursing assistants are most likely to fulfill the sitting role and are thought to experience more violence. Gillespie et al. (2014) found that nursing assistants were involved in more violent events when evaluated over an 18-month period. Previous studies by Gates et al. (2011) assessed team member roles, as well as other demographic information, and none of the factors were statistically significant or related to violent events. At the DNP Project sites, formal education and training related to workplace violence is not provided to paramedics, medical unit receptionists, physicians, physician assistants, or nurse practitioners. Education and training are typically obtained through exposure and experience for those roles. Lack of formal education and training correlate to decreased confidence in caring with aggressive patients although, Gillespie (2014) found that ED team members have not fully embraced the significance of their roles related to workplace violence. There are studies that have been performed to compare job roles and the occurrence of violence. Further research is needed regarding confidence in caring for aggressive patients related to job roles.

The results of the DNP Project revealed a need for more impactful interventions to build team member confidence in caring for aggressive patients. Organizational and department leaders are challenged to support operational efforts and team members. Gillespie et al. (2014) found that a reduction in workplace violence is unlikely to occur until ED team members and leaders embrace the significance of their role in prevention and management. Successful outcomes are predicted with programs and interventions that have full participation and support from all stakeholders (Gillespie et al., 2014).

The second intended outcome of the DNP Project was to enhance procedures for decreasing workplace violence, as evidenced by the increased use of a “Safety and Security Alert” order. This objective was not met. Placing the order in the EMR, triggers public safety to report to the ED as an additional layer of support when caring for a patient at risk for violence or with a history of violent behavior. The “Safety and Security Alert” process brings awareness of a possible violent event to all team members and potentially can mitigate a violent event. Improving compliance may not have occurred due to a culture that already exists and is integrated into daily workflows. The “safety and security” flag is not a new feature in the EMR. Nurses are accustomed to seeing the flag and not having additional steps to take. Nurses may not see the benefit in the addition of another step, placing the order; additional steps are typically viewed as more work. An unanticipated finding of the project implementation was team member’s verbalization of their lack of trust in public safety response. The lack of trust and perception that public safety does not respond within a timely manner may have had a negative impact on the project results and failure to improve compliance in order placement. Though this portion of the project was not initially successful, the findings of internal challenges will greatly

influence future decisions by unit leadership. Another explanation includes compliance with best practice alerts (BPAs). EMR workflow for ED team members triggers many BPAs that are often ignored. Nurses “click” through the advisories and do not accept them as part of their recommended patient care options. Due to possible “alert fatigue”, nurses may not have acknowledged the BPA for the “safety and security alert”, therefore the order was not placed and this too may have had a negative impact on the project results.

### **Recommendations**

Recommendations include continuation of the great momentum this project has generated by the adoption of a more comprehensive workplace violence prevention program. Gillespie et al. (2013) recommended a nine-month prevention program. A comprehensive program should include more longitudinal workplace violence policies, procedures, education, and environmental changes (Gillespie et al., 2013). The initial phase of the Workplace Violence policy has been addressed at the DNP Project sites, and additional evaluation and updates will be needed. Recommended procedures include “strategies for risk assessment, maintaining a safe environment, communication of risk, response to violent events, recordkeeping, surveillance, and post-incident care” (Gillespie et al., 2013, p.377). Other procedural considerations include rounding in the lobby, early screening, concealed weapon assessments, flagging patients, post-incident reviews, and surveillance reports (Gillespie et al., 2013). Education should be included in the program and include workplace violence information but also focus on improving team member ability to identify violent behaviors earlier (Copeland & Henry, 2017). Environmental recommendations should be facility specific and determined by operational ability to

make changes. Recommended changes may include the installation of metal detectors, panic alarms, locked doors, or cameras (Gillespie et al., 2013).

Another recommendation is enhanced education and training for team members working in the ED. Gillespie et al., (2012) recommends education on how to communicate effectively, provide comfort and distraction, how to show genuine concern and empathy, policy and procedure components, how to assess for early signs of escalation and role expectations during and after events. It is also recommended that effective forms of education be used. Gillespie et al. (2013) found that providing education in a classroom setting, instead of online training, was preferred from ED team members; classroom training helps to apply the content to practice more effectively. Organizationally, administrators must allot time in budgeting and staffing matrixes to allow increased educational sessions.

### **Sustainability**

The policy and procedure updates and enhancements, as a result of this DNP Project, are part of the organizational mold. The policies and procedures are corporate documents that are used at not only the two project implementation sites but at over eleven medical centers within the health system. The policies will continue to be used beyond the completion of the DNP Project; therefore, they are sustainably providing safe practice guidelines for team members. The updated procedures and EMR enhancements will also remain in place after completion of the project.

Successful outcomes are predicted through organizational processes that address workplace violence with continuous evaluation, feedback and revision, and a culture supporting team member safety as a priority (Gillespie, 2014). As a result of the DNP



Project needs assessment, and implementation the project leader has been invited to provide informational presentations to facility leaders regarding the Safety and Security Alert Procedures and Documentation policy and the “safety and security alert” flag process. Opportunities, as such, support continuous integration of the best practice initiated as part of the DNP Project work. Leader interaction provides an avenue for evaluation, feedback and support. Leaders can convey important messages to team members in addressing violence and promoting safety.

Maintaining a safe work environment is a legal and ethical responsibility of leaders in healthcare (Copeland & Henry, 2017). The ANA (2015) has taken a position against workplace violence and states the nursing profession, along with other health care professionals, will no longer tolerate violence of any kind from any source. Effective interventions to provide a safe and healthy workplace require an ongoing commitment from all health care team members (ANA, 2015). The ENA (2014) is also committed to a safe work environment and stresses that mitigation of workplace violence requires a “zero tolerance” environment enforced and supported by leadership. Both professional organizations offer resources as guidance for organizational leaders to follow in providing safe environments. The Joint Commission published a Sentinel Event Alert (2018) mandating organizational leaders to recognize and acknowledge workplace violence and better prepare team members during the event of and following episodes of violence. As part of this DNP Project, increased organizational consciousness and action has occurred. The energy from the sentinel event alert has already motivated organizational leaders in evaluating current practices pertaining to workplace violence and team member safety. Future interventions in this area will continue to evaluate the

current education and training, prevention strategies, situation management, and post incidence care. The DNP Project intervention laid a strong foundation for future work to be continued by not only this DNP candidate but, the entire organization and other leaders across the health care system.

## **SECTION X**

### **Implications for Practice**

Workplace violence, as a result of violent patient behavior, is prevalent in health care and EDs have been identified as high-risk settings. Team members working in EDs are vulnerable to violent behavior and admit not feeling safe. The DNP Project implemented evidence-based interventions in an attempt to improve confidence and a perception of safety amongst ED team members. Although the project results did not indicate an improvement, the implemented interventions have delivered evidence-based improvements to an organization's existing policies, procedures, and processes.

Although ED team members will continue to be at high risk for work place violence as a result of violent patient behavior, risk mitigation steps should be in place (Gillespie et al., 2013). The OSHA (2015) recommends comprehensive anti-violence programs that include leader commitment and employee involvement, analysis of existing or potential hazards for violence, measures for violence prevention and control, training for employees, record keeping, and evaluation to determine effectiveness. The Joint Commission's sentinel event has raised a sense of awareness of workplace violence and also recommends organizational evaluations and implementation of processes that prepare team members to handle and address violence. Organizations are encouraged to acknowledge workplace violence and take steps to create safe environments. ED team members need to also take responsibility and participate in learning opportunities so they can better prepare for a violent event and protect themselves.

This DNP Project provided an opportunity to apply evidence-based solutions to an identified problem within a health care system. During the experience, the DNP leader

identified gaps in an organizational Workplace Violence policy, which was the foundation of the DNP Project. The identified gaps served as the hallmark of the project's focus. The DNP Project leader was denied permission to implement the policy changes and had to depend on another team member to implement the changes. Depending on another healthcare team member created delays in implementation and additional gaps related to knowledge deficits about workplace violence. After many attempts, the Workplace Violence policy remains unchanged and the gaps are still present. DNP leaders are responsible for the implementation of findings in ways that change or improve practice and outcomes (Tymkow, 2017). The challenges of this experience allowed the DNP leader to work inter-professionally with other leaders and work through barriers while still executing other evidence-based interventions. Moving forward, the DNP leader will continue collaborating with policy stakeholders and guide recommendations for change. DNP leaders must be empowered to overcome barriers in order to provide optimal outcomes and solutions.

As discovered in the implementation of this DNP Project, much work lies ahead for this health system. The issue of workplace violence is multifactorial and many gaps in policy, procedures, and education still exist that are contributing to no improvement in staff confidence and perception of safety. As part of the increased attention to this topic initiated by the DNP Project, organizational executive leaders have been made aware of these gaps, and increased organizational attention and energy is being devoted to workplace violence. This DNP candidate is confident that the work initiated by the DNP Project will continue to lead toward positive change and best practice for providers in the Emergency Department and will gain incredible momentum in the coming months.

## References

- American Nurses Association. (2015). Incivility, bullying, and workplace violence new position statement. Retrieved from <https://www.nursingworld.org/practice-policy/work-environment/violence-incivility-bullying/>
- Copeland, D. & Henry, M. (2017). Workplace violence and perceptions of safety among emergency department staff members: Experiences, expectations, tolerance, reporting, and recommendations. *Journal of Trauma Nursing*, 24(2), 65-77. doi: 10.1097/JTN0000000000000269
- Emergency Nurses Association. (2010). Emergency department workplace violence toolkit. Retrieved from [https://www.ena.org/docs/default-source/resource-library/practice-resources/toolkits/workplaceviolencetoolkit.pdf?sfvrsn=6785bc04\\_28](https://www.ena.org/docs/default-source/resource-library/practice-resources/toolkits/workplaceviolencetoolkit.pdf?sfvrsn=6785bc04_28)
- Emergency Nurses Association. (2011). Emergency department violence surveillance study. Retrieved from [https://www.ena.org/docs/default-source/default-document-library/practice-resources/work-place-violence/enaedvsreportnovember2011.pdf?sfvrsn=ff262d3d\\_2](https://www.ena.org/docs/default-source/default-document-library/practice-resources/work-place-violence/enaedvsreportnovember2011.pdf?sfvrsn=ff262d3d_2)
- Emergency Nurses Association. (2014). ENA Position Statement: Violence in the emergency care setting. Retrieved from [https://www.ena.org/docs/default-source/resource-library/practice-resources/position-statements/violenceintheemergencycaresetting.pdf?sfvrsn=49343551\\_8](https://www.ena.org/docs/default-source/resource-library/practice-resources/position-statements/violenceintheemergencycaresetting.pdf?sfvrsn=49343551_8)
- Emergency Nurses Association. (2015). The American Organization of Nurse Executives guiding principles: Mitigating violence in the workplace. Retrieved from <https://www.ena.org/docs/default-source/resource-library/practice->

[resources/position-](#)

[statements/jointstatements/mitigatingviolence.pdf?sfvrsn=ae0b949c\\_6](#)

Gacki-Smith, J., Juarez, A., & Boyett, L. (2009). Violence against nurses working in US emergency departments. *Journal of Nursing Administration, 39*(7/8), 340-349.

Gates, D., Gillespie, G., Kowalenko, T., Succop, P., Sanker, M., & Farra, S. (2011) Occupational and demographic factors associated with violence in the emergency department. *Advanced Emergency Nursing Journal, 33*(4), 303-313.

doi:10.1097/TME.0b013e3182330530

Gates, D., Gillespie, G., Smith, C., Rode, J., Kowalenko, T., Smith, B., & Arbor, A. (2011). Using action research to plan a violence prevention program for emergency departments. *Journal of Emergency Nursing, 37* (1), 32-39.

doi:10.1016/j.jen.2009.09.013

Gillespie, G., Gates, D. & Mentzel, T. (2012). An educational program to prevent, manage, and recover from workplace violence. *Advanced Emergency Nursing Journal, 34*(4), 325-352. doi: 10.1097/TME.0b013e318267b8a9

Gillespie, G., Gates, D., Mentzel, T., Al-Natour, A., & Kowalenko, T. (2013). Evaluation of a comprehensive ED violence prevention program. *Journal of Emergency Nursing, 39* (4), 376-383. Retrieved from

<http://dx.doi.org/10.1016/j.jen2012.12.010>

Gillespie, G., Gates, D., Kowalenko, T., Bresler, S., & Succop, P. (2014) Implementation of a comprehensive intervention to reduce physical assaults and threats in the emergency department. *Journal of Emergency Nursing, 40* (6), 586-591.

Retrieved from <http://dx.doi.org/10.1016/j.jen.2014.01.003>

Howard, P. & Gilboy, N. (2009). Workplace violence. *Advanced Emergency Nursing Journal*, 31(2), 94-100.

Kirkpatrick, J. & Kirkpatrick, W. (2016). *Kirkpatrick's four levels of training evaluation*. Alexandria, VA: ATD Press.

Kowalenko, T., Cunningham, R., Sachs, C., Gore, R., Barata, I., Gates, D., Hargarten, S., Josephson, E., Kamat, S., Kerr, H., & McClain, A. (2012). Workplace violence in emergency medicine: Current knowledge and future directions. *The Journal of Emergency Medicine*, 43(3), 523-531. doi:10.1016/j.jemermed.2012.02.056

Locke, L., Bromley, G., & Federspiel, K. (2018). Patient violence: It's not all in a day's work. *American Nurse Today*, 13(5), 10-13.

Martin, T. & Daffern, M. (2006). Clinician perceptions of personal safety and confidence to manage inpatient aggression in a forensic psychiatric setting. *Journal of Psychiatric and Mental Health Nursing*, 13, 90-99.

National Institute for Occupational Safety and Health Division of Safety Research.

(2018). Occupational violence. Retrieved from:

<https://www.cdc.gov/niosh/topics/violence/>

North Carolina Department of Labor. (2013). Workplace violence prevention guidelines and program for health care, long term care, and social services workers.

Retrieved from <http://www.nclabor.com/osha/etta/indguide/ig51.pdf>

Novant Health. (2015). Safety and Security Alert Procedures and Documentation.

Novant Health. (2016). Workplace Violence.

- Occupational Safety and Health Administration. (2015). Workplace violence in health care: Understanding the challenge. Retrieved from <https://www.osha.gov/Publications/OSHA3826.pdf>
- Polit, D. & Beck, C. (2017). *Nursing research: Generating and assessing evidence for nursing practice* (10<sup>th</sup> ed.). Philadelphia, PA: Wolters Kluwer.
- Ramacciati, N., Ceccagnoli, A., Addey, B., Lumini, E., & Rasero, L. (2016) Interventions to reduce the risk of violence toward emergency department staff: current approaches. *Open Access Emergency Medicine, 8*, 17-27.
- Runyan, C. (1998). Using the Haddon matrix: Introducing the third dimension. *Injury prevention, 4*, 302-307.
- Solorzano-Martinez, A. (2016). Managing workplace violence with evidence-based interventions. *Journal of Psychosocial Nursing, 59(4)*, 31-36.
- Taylor, J. & Rew, L. (2010). A systematic review of the literature: Workplace violence in the emergency department. *Journal of Clinical Nursing, 20*, 1072-1085.  
doi:10.1111/j.1365-2702.2010.03342.x
- Thackrey, M. (1987). Clinician confidence in coping with patient aggression: Assessment and enhancement. *Professional Psychology Research and Practice, 18(1)*, 57-60.
- The Joint Commission. (2018). Sentinel event alert: Physical and verbal violence against health care workers. Retrieved from [https://www.jointcommission.org/assets/1/18/SEA\\_59\\_Workplace\\_violence\\_4\\_13\\_18\\_FINAL.pdf](https://www.jointcommission.org/assets/1/18/SEA_59_Workplace_violence_4_13_18_FINAL.pdf)



Tymkow, C. (2017). Clinical scholarship and evidence-based practice in Zaccanini, M. &

White, K. (Eds.), *The Doctor of Nursing Practice Essentials: A new model for advanced practice nursing*. (3<sup>rd</sup> ed.). Sudbury, MA: Jones & Bartlett.

United States Department of Labor. (2017). Workplace violence. Retrieved from

<https://www.osha.gov/SLTC/workplaceviolence/>

Wolfe, L., Delao, A., & Perhats, C. (2013). Nothing changes, nobody cares:

Understanding the experience of emergency nurses physically or verbally assaulted while providing care. *Journal of Emergency Nursing*, 40(4), 305-310.

<http://dx.doi.org/10.1016/j.jen.2013.11.006>

## Appendix A

### Nursing Needs Assessment Survey

Workplace violence is generally defined as physical assault, emotional or verbal abuse, threatening, harassing, or coercive behavior in the work setting that causes physical or emotional harm. Have you ever been a victim of workplace violence as a result of an aggressive or violent patient?

Yes No

Have you ever had a patient threaten, grab, spit, and/or hit you?

Yes No

Have you ever felt that your safety was at risk due to a patient's violent behavior?

Yes No

Do you feel that workplace violence is "part of the job"?

Yes No

Have you ever missed time at work due to an injury caused by a violent patient?

Yes No

Do you feel that more can be done to prevent workplace violence?

Yes No

## Appendix B

### Project Plan

Question	Will the implementation of evidence-based interventions improve the perception of safety amongst ED team members?
Population	ED team members working in two medical centers. ED team members include registered nurses, paramedics, certified nursing assistants, physicians, physician assistants, nurse practitioners, and medical unit receptionists.
Design	Evidence-based practice project
Sample	The goal is to implement interventions to improve team member safety.
Project Design	The DNP Project design focused on a triad of events or interventions that included policy, procedures, and education as recommended in literature. The first intervention required making improvements to the organization's policies and procedures that focus on workplace violence and a safety and security alert. Another intervention involved updates to the "safety and security alert" order within the EMR. Education accompanied each policy and procedure change and was also considered an intervention. Pre and post data will be gathered to assess team member perception of safety as well as compliance in using the Safety and Security Alert order. Demographic information will also be collected and assessed.

### Time Line

June 2017	Began literature review
July 2017	Continued literature review and began identifying stakeholders
August 2017	Completed needs assessment
August 2017	Placed requests for changes to EMR (data report and order enhancements)
August 2017	Contacted policy owners
September 2017	Completed needs assessment
October 2017	Set up regular meetings with Stakeholders

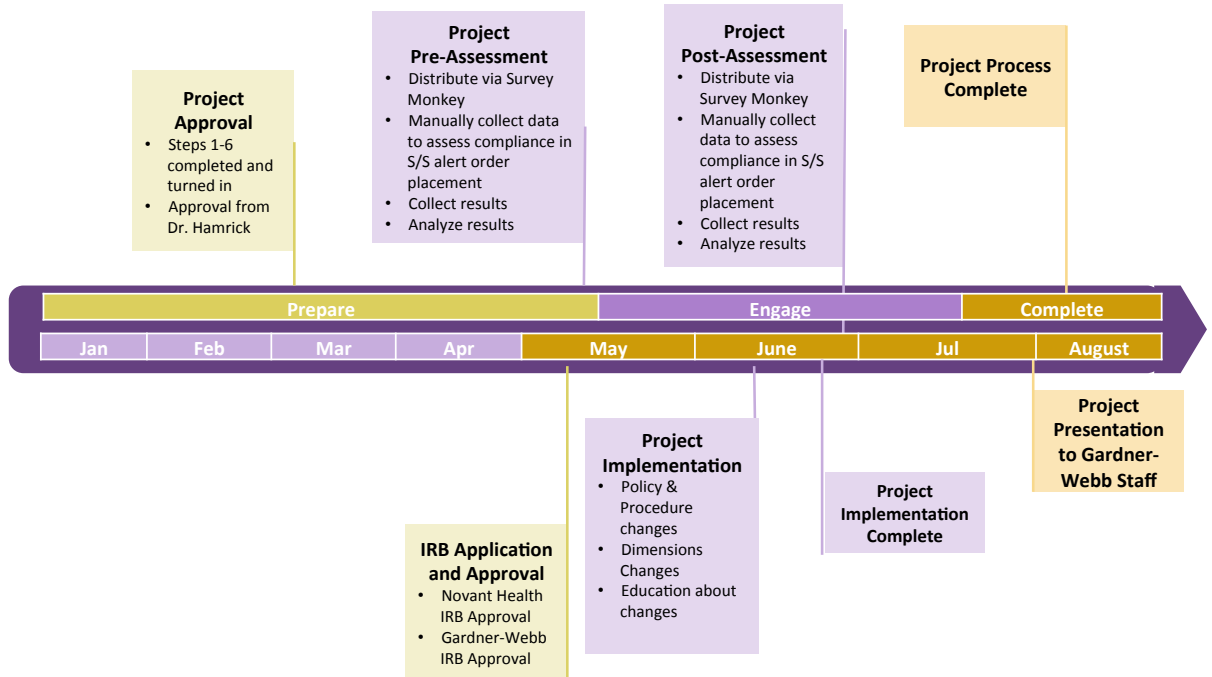
October 2017	Began meeting with nurse scientist
November 2017	Began meeting regularly with EMR team members in response to a request placed for change
December 2017	Began meeting with policy owners and making policy changes.
January 2018	Continued with policy process.
February 2018	Created pre and post implementation surveys
March 2018	Collaborated with nurse scientist and discussed evaluation statistical analysis
March 2018	Created education
April 2018	Institutional Review Board approval
April 2018	Policy final approvals obtained from corporate groups
May 2018	Pre-implementation data collection
May 2018	Scheduled team huddles
June 2018	Project implementation (distribution of education via newsletters and huddles)
June 2018	Post-implementation data collection
July 2018	Completion of DNP Project
Data Collection	Tools used will include pre and post surveys. Analysis of data will be done using The IBM® Statistical Package for the Social Sciences® (SPSS).
Evaluation Plan	The DNP Project will include a quantitative, educational, pre-post implementation survey evaluation design. The pre-post-implementation survey will request demographic information. Descriptive and correlational statistics will be used to determine whether there is an association between sex, team member roles, years of experience, shifts worked, and for nurses, level of education and the scores of confidence. Pre and post implementation data will be compared.
Ethical and Protective Consideration	Institutional Review Board approval will be applied for at both the University and the organization. The project researcher will keep the information confidential and no identifying data or information will be revealed in the results. The DNP Project

Student Leader will maintain data on a password-protected computer until completion of the project.

# Appendix C

## Project Timeline

### Workplace Violence Project Timeline



## Appendix D

### Pre-Implementation Email Consent and Survey Link

ED Team Members,

Workplace Violence is defined by The Occupational Safety and Health Administration (OSHA) as “any act or threat of physical violence, harassment, intimidation, or other threatening disruptive behavior that occurs at work”. Healthcare workers are one of the most at-risk groups for workplace violence and working in the Emergency Department increases the risk.

I am a Doctor of Nursing Practice (DNP) student at Gardner-Webb University in North Carolina. As part of my role as an Emergency Nursing Clinical Practice Specialist and a DNP student, I have vested my time and interests in exploring workplace violence, particularly violent patient behavior. I am on a mission to incorporate evidence-based interventions into practice in order to assist emergency team members in caring for patients with violent behavior.

Below is a link to a survey that will be used to assess ED team member confidence and perception of safety.

This survey is part of an evidence-based project conducted by the Project Leader, Gari Leigh Adams from ██████ Health in conjunction with Gardner-Webb University. This project is designed to improve policy, procedures, and protocols associated with workplace violence in the Emergency Department.

By clicking this link and completing the survey you understand:

1. Your participation in completing the survey is voluntary. You understand that you will not be paid for participation. You may withdraw or discontinue participation at any time without penalty. If you decline to participate or withdraw from the project, there will be no punitive action taken nor will it affect your job in any way.
2. The project leader will not identify participants by name in any documents that are submitted for this evidence-based practice project and confidentiality, as a participant will remain secure. Surveys are anonymous.
3. Participants voluntarily agree to participate in this project by completing this survey at the link below.

Risks and benefits: There are no foreseeable risks or discomforts associated with this project.

Compensation: There will be no compensation for participation in this project.

Confidentiality: Participation is confidential. Surveys are anonymous. No identifiable information is collected.

Voluntary Participation: All ED Team Members are being asked to complete this survey but participation is voluntary. Completion of the survey will imply consent for voluntary participation.

Project Leader: Gari Leigh Adams, MSN, RN, CEN  
For More Information: Contact the Project Leader, Gari Leigh Adams @  
gladams@[REDACTED] or call 336-817-2559. You may also contact the DNP Project  
Chair at Gardner-Webb University, Dr. Anna S. Hamrick, DNP, FNP-C, ACHPN by  
email at ashamrick@gardner-webb.edu or call 704-406-2460.

To voluntarily complete the survey, please “click” on the link and answer each question.

<https://www.surveymonkey.com/r/3T6P73Z>

The survey should take you less than 5 minutes to complete.

I appreciate you, your hard work, and dedication to emergency nursing.

Thank you,

**Gari Leigh Adams, MSN, RN, CEN**

Clinical Practice Specialist

Emergency Nursing

Clinical Education

Novant Health  
4020 Kilpatrick Street, Suite 101  
Winston-Salem, NC 27104

- Office 336-277-6623
- Cell 336-817-2559
- E-fax 336-277-8537

[gladams@novanthealth.org](mailto:gladams@novanthealth.org)

Making healthcare remarkable

The survey is being used with permission from Michael Thackrey.



Appendix E

Pre and Post-Implementation Survey Questions

**Confidence in Coping with Patient Aggression Instrument by Michael Thackrey**

1. How comfortable are you in working with an aggressive patient?  
very uncomfortable very comfortable  

--	--	--	--	--	--	--	--	--	--	--
  
2. How good is your present level of training for handling psychological aggression?  
very poor very good  

--	--	--	--	--	--	--	--	--	--	--
  
3. How able are you to intervene physically with an aggressive patient?  
very unable very able  

--	--	--	--	--	--	--	--	--	--	--
  
4. How self-assured do you feel in the presence of an aggressive patient?  
not very self-assured very self-assured  

--	--	--	--	--	--	--	--	--	--	--
  
5. How able are you to intervene psychologically with an aggressive patient?  
very unable very able  

--	--	--	--	--	--	--	--	--	--	--
  
6. How good is your present level of training for handling physical aggression?  
very poor very good  

--	--	--	--	--	--	--	--	--	--	--
  
7. How safe do you feel around an aggressive patient?  
very unsafe very safe  

--	--	--	--	--	--	--	--	--	--	--
  
8. How effective are the techniques that you know for dealing with aggression?  
very ineffective very effective  

--	--	--	--	--	--	--	--	--	--	--
  
9. How able are you to meet the needs of an aggressive patient?  
very unable very able  

--	--	--	--	--	--	--	--	--	--	--
  
10. How able are you to protect yourself physically from an aggressive patient?  
very unable very able  

--	--	--	--	--	--	--	--	--	--	--

11. What is your sex?
- Male
  - Female
12. What is your primary role in the emergency department?
- Registered nurse
  - Certified Nursing Assistant
  - Paramedic
  - Medical Unit Receptionist
  - Physician
  - Physician Assistant
  - Nurse Practitioner
13. How many years of experience do you have working in the emergency department?
- 5 years or less
  - 6-15 years
  - 16-25 years
  - 26 or greater years
14. If you are a nurse, what is your highest level of education?
- Associate Degree in Nursing (ADN)
  - Bachelor of Science in Nursing (BSN)
  - Master of Science in Nursing (MSN)
  - Other graduate level in nursing
15. What shift do you work primarily in the emergency department (>75% of the time)?
- Daytime
  - Evening
  - Nights

## Appendix F

### Post-Implementation Email Consent with Survey Link

ED Team Members,

Workplace Violence is defined by The Occupational Safety and Health Administration (OSHA) as “any act or threat of physical violence, harassment, intimidation, or other threatening disruptive behavior that occurs at work”. Healthcare workers are one of the most at-risk groups for workplace violence and working in the Emergency Department increases the risk.

I am a Doctor of Nursing Practice (DNP) student at Gardner-Webb University in North Carolina. As part of my role as an Emergency Nursing Clinical Practice Specialist and a DNP student, I have vested my time and interests in exploring workplace violence, particularly violent patient behavior. I am on a mission to incorporate evidence-based interventions into practice in order to assist emergency team members in caring for patients with violent behavior.

Below is a link to a survey that will be used to assess ED team member confidence and perception of safety. You may have completed this survey several weeks ago. Since, you have received education on policy and procedure updates which includes enhancements to the Safety and Security Alert order entry in Dimensions.

This survey is part of an evidence-based project conducted by the Project Leader, Gari Leigh Adams from ██████ Health in conjunction with Gardner-Webb University. This project is designed to improve policy, procedures, and protocols associated with workplace violence in the Emergency Department.

By clicking this link and completing the survey you understand:

1. Your participation in completing the survey is voluntary. You understand that you will not be paid for participation. You may withdraw or discontinue participation at any time without penalty. If you decline to participate or withdraw from project, there will be no punitive action taken nor will it affect your job in any way.
2. The project leader will not identify participants by name in any documents that are submitted for this evidence-based practice project and confidentiality, as a participant will remain secure. Surveys are anonymous.
3. Participants voluntarily agree to participate in this project by completing this survey at the link below.

Risks and benefits: There are no foreseeable risks or discomforts associated with this project.

Compensation: There will be no compensation for participation in this project.

Confidentiality: Participation is confidential. Surveys are anonymous. No identifiable information is collected.

Voluntary Participation: All ED Team Members are being asked to complete this survey but participation is voluntary. Completion of the survey will imply consent for voluntary participation.

Project Leader: Gari Leigh Adams, MSN, RN, CEN

For More Information: Contact the Project Leader, Gari Leigh Adams @ gladams@[REDACTED] or call [REDACTED]. You may also contact the DNP Project Chair at Gardner-Webb University, Dr. Anna S. Hamrick, DNP, FNP-C, ACHPN by email at ashamrick@gardner-webb.edu or call 704-406-2460.

I am requesting your participation in the survey. To voluntarily complete the survey, please “click” on the link and answer each question.

<https://www.surveymonkey.com/r/PKJ6VM9>

The survey should take you less than 5 minutes to complete.

I appreciate you, your hard work, and dedication to emergency nursing.

Thank you,

**Gari Leigh Adams, MSN, RN, CEN**

Clinical Practice Specialist

Emergency Nursing

Clinical Education

Novant Health

4020 Kilpatrick Street, Suite 101

Winston-Salem, NC 27104

- Office 336-277-6623
- Cell 336-817-2559
- E-fax [REDACTED]

[gladams@novanthealth.org](mailto:gladams@novanthealth.org)

Making healthcare remarkable

The survey is being used with permission from Michael Thackrey

# Appendix G

## Logic Model

**LOGIC MODEL Worksheet for Workplace Violence**

