

# The Role of the Emergency Registered Nurse to Teach Stop the Bleed® in the Community Setting

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## Introduction

Registered Nurses in the Emergency Department often have experience and education in the initial management of life-threatening bleeding. Many have received additional specialized training via programs such as Stop the Bleed®. Traumatic injuries are the leading cause of death in people under 44 years old, with uncontrolled hemorrhage responsible for almost 40% of mortality, and 33%-56% of those deaths occurring in the pre-hospital period, highlighting the need for this training and preparedness in the community (Levy, et al.).

Stop the Bleed® (STB) is an organization and public health campaign that aims to train, equip, and empower those without medical training to assist in a bleeding emergency, through a combination of education and better access to equipment such as tourniquets and hemostatic dressings (Tsui et al., 2020 & Stop the Bleed® Coalition, 2023). Emergency room Registered Nurses (RNs) have the right combination of education, clinical experience, and teaching skills to share this training and knowledge to increase public awareness and preparation in the instance of a bleeding emergency.



## Project Setting



SUNY Brockport is a public university that is part of the State University of New York system located in a Brockport, NY, in the western part of Monroe County just outside of Rochester. It is home to over 6900 undergraduate and graduate students, and more than 1300 faculty and staff. Local health care services include the campus-based Hazen Health Center, and the off-campus free-standing Strong West Emergency Department (SWED) that is an extension of the University of Rochester Medical Center (URMC) emergency medicine services.



URMC is the closest level one trauma center located approximately 30 minutes east in Rochester. The closest and most immediate emergency medical response is SWED, but its services are somewhat limited. An important example of this is that blood products, trauma surgeons, critical care, or inpatient beds are not available in the event of a mass casualty incident (MCI). While critical patients requiring emergent stabilization may initially be brought to SWED, in the event of an MCI, primarily only the "walking wounded" would receive treatment there, and other more seriously injured will need critical care transport to URMC and other local lower-level trauma centers also located several miles away.

## Background & Need

Mass casualty incidents (MCIs) arising from gun violence have unfortunately become a part of almost daily American life on educational institution campuses and other densely populated public places. School shootings have increased, with 51 incidents in 2022 alone, the most since Education Week began tracking such data in 2018 (Education Week, 2022). The ACS and ACS COT recognize this since the Sandy Hook shootings and other similar events, and as such, have developed training designed to help control massive, emergent bleeding, thereby reducing morbidity and mortality rates, and ultimately, saving lives.

College campus gun violence isn't limited to mass shootings alone; other instances include individual attacks, unintentional gunfire, legal interventions, and self-harm. Between 2013 and 2022, there were 242 incidents of gun violence on college campuses; of those 242, there were 114 fatalities (Welding, 2023). According to the American Psychological Association (2013), prevention remains a critical part in the reduction of gun violence, as does treatment of mental health issues.

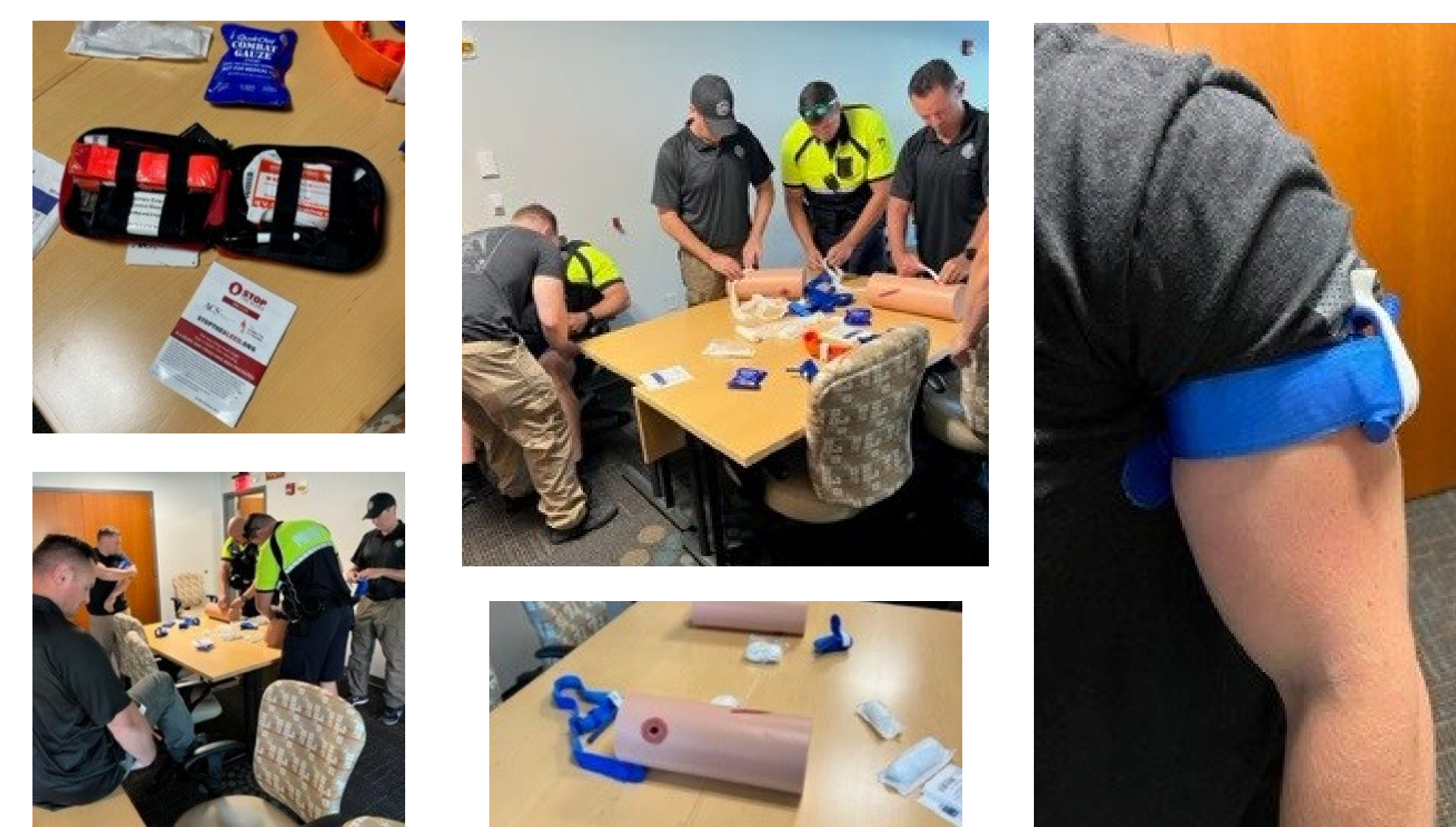
Given those statistics and the relatively remote location of the SUNY Brockport campus from the URMC, and with the worsening strains on and availability of emergency medical services (EMS) response, the need for this type of local and campus-level response to such a situation is apparent. Rapid treatment in a trauma center for morbidity and mortality reduction is well-established, however first responder delays due to MCI scene safety notwithstanding, proximity to the former is also an important factor (Myers, DeSimone & Lorch, 2020).

While non-medical professional training and knowledge of life-saving measures such as cardio-pulmonary resuscitation (CPR) has grown over the past few decades, the provision of massive bleeding control measures is still relatively new to the public. Providing education in how to stop bleeding and perform chest compressions correctly is associated with few disadvantages (Tsui et al., 2020).

## Project Scope & Implementation

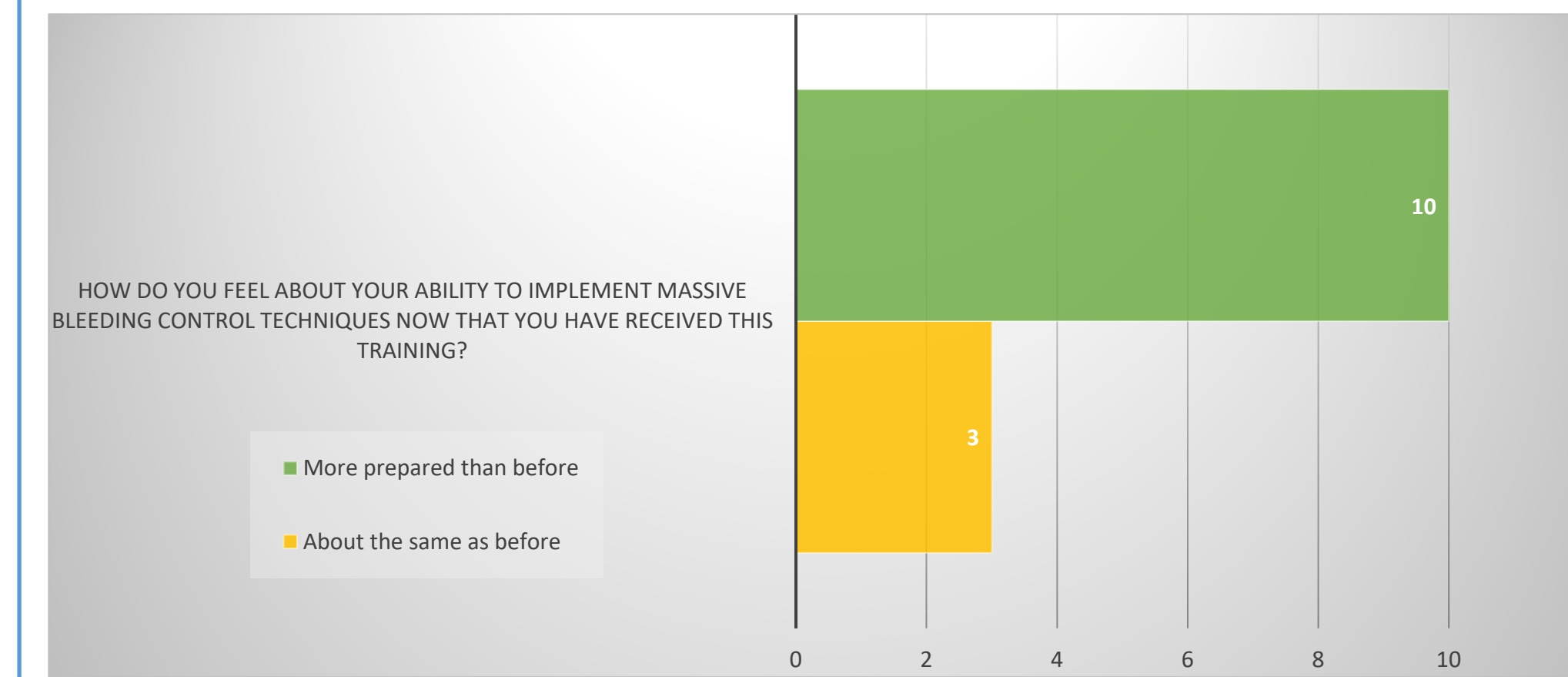
The aim of this project was to improve campus response to potential MCIs by providing SUNY Brockport University Police officers training and certification on emergency bleeding control techniques and with bleeding control kits, utilizing STB education from the ACS and the ACS COT.

Officers were trained during their annual in-service days in July 2023 at Lathrop Hall on the SUNY Brockport campus, a building that houses both the Nursing and the University Police Departments. Two groups of less than 10 allowed for one certified STB instructor to provide both the lecture and hands-on skills portion. Officers received certificates of completion at the end of the course after demonstrating the use of the bleeding control kits and supplies, including combat tourniquets and gauze.



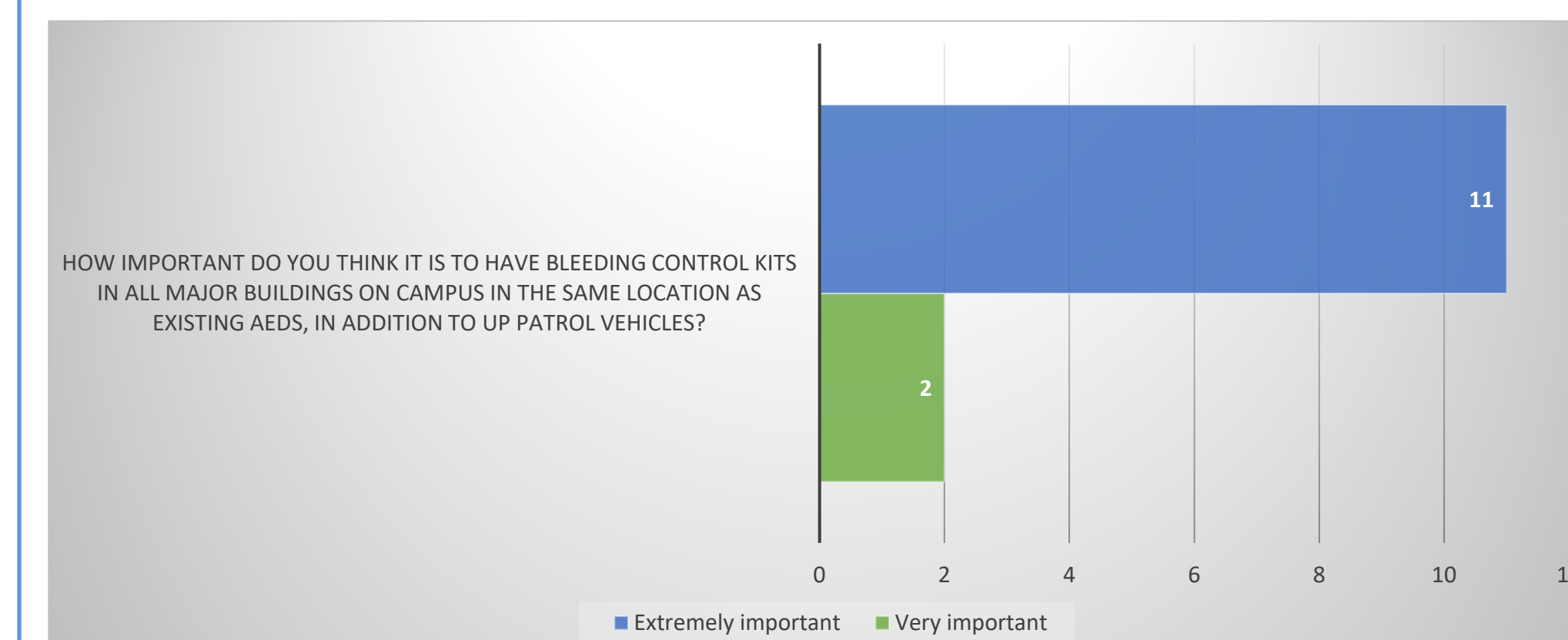
## Results

Thirteen participants were given a post-training survey with a 100% response rate. The majority of respondents had heard of STB (84.6%) and had some previous formal massive bleeding control training (92.3%). They were also asked how they felt their level of preparedness had changed, with 76.9% feeling more prepared and 23.1% feeling about the same.



The initial phase of this project provided for the purchase of eight bleeding control kits using a faculty scholarship award. One kit is housed within the UP department for walk-in emergencies and the remaining seven are kept in patrol vehicles for on-scene response. Each kit has been dated and tagged with a plastic break-away security lock to ensure its integrity.

Participants were also asked how they felt about the need for having more kits distributed throughout major buildings on campus, with 84.6% feeling it was extremely important and 15.4% feeling it was very important. The results suggest that the second phase of this project, procuring additional kits, should be implemented but additional funds will be needed. STB grants and support from local government are two possible sources.



Safety and response to emergencies are top priorities on college campuses. Many higher education intuitions have introduced STB training and/or placed bleeding control kits throughout campus, including the SUNY Albany, Binghamton, Buffalo State, Cobleskill, Cortland, Genesee, Mohawk Valley Community College, University at Buffalo, University of Rochester, and Westchester Community College, to name a few.

This project added SUNY Brockport to that list of campuses that have taken steps increase the response to life threatening bleeding emergencies utilizing STB education from the ACS and the ACS COT.



## Implications/ Conclusions

ED nurses are uniquely qualified to teach life-threatening bleeding control techniques in the community using educational programs such as Stop the Bleed®. Awareness of its importance is growing, as is support in the form of grants and newly introduced legislature on the federal level to provide more funding for education and supplies.

As CPR education has become more accessible and with the increased availability of AEDs in public locations, the next step in addressing medical emergencies involving significant bleeding in the community is providing education on the same. ED nurses should consider the following options for sharing this education:

- Train nursing school faculty as instructors for future education and training of nursing students.
- Train staff at local school districts, and to high school students as part of CPR/AED education.
- Teach local town hall staff and citizens at community centers or through continuing education.

This training can be considered a form of both secondary and tertiary prevention, as it impacts and intervenes in both the immediate and long-term sequelae of bleeding resulting from trauma. By working together as emergency nursing professionals, we increase the potential for life-saving care in the public and the community, thereby reducing morbidity and mortality associated with life-threatening bleeding.

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