Stop the Bleed Bystander Interventions Implemented at the University of Richmond

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Abstract

The national Stop the Bleed® initiative, which teaches lay people how to control and identify life-threatening hemorrhages, was implemented at the University of Richmond through the established on campus EMS agency, UREMS. Leveraging UREMS' extensive instructor network allowed smooth integration of the national course both on campus and in the broader Richmond Community. This improved the visibility of the EMTs serving the campus and helped connect bystanders with first responders. In the first 6 months, over 200 people were trained in tourniquet usage, wound packing, and direct pressure application. Stop the Bleed® on a college campus requires easy access to bleeding control equipment, as well as public knowledge of how to employ these tools. UREMS petitioned for and successfully obtained $8500 in grant money from the American Rescue Plan Act (ARPA) fund, with the eventual goal of placing bleeding control kits in high-trafficked areas on campus. The program continues to grow, with more instructors and certified community members added to our network each semester.

Introduction

In recent years, college campuses have become the epicenter for a number of threats to student safety– active shooter events, mass casualty incidents, natural disasters, and motor vehicle collisions [1]. Injuries sustained from such events can result in severe, life-threatening bleeding. Uncontrolled hemorrhages represent the single biggest cause of preventable death in traumatic injuries, which are responsible for up to 40% of trauma mortalities and are the leading cause of death on college campuses [2]. Further, EMS response times average 7 minutes from a 911 call to scene arrival, with median times increasing to 14 minutes in rural areas. These response times could prove fatal, as a patient can bleed out from an arterial injury in as little as two minutes.

The University of Richmond (UR) is a small campus, with approximately 4,000 undergraduate and graduate students. Approximately 30 UR students make up UREMS, providing 24-hour emergency medical services at the EMT-B level. In the case of a potentially life-threatening bleeding incident, such care could prove critical. However, in the case of an active threat, our providers may not be able to render care in a timely fashion. Improving access to bleeding control equipment and educating campus community members in hemorrhage control, or Stop the Bleed, has the potential to save countless lives. [3]

The Stop the Bleed (STB) initiative empowers laypersons to control and identify life-threatening bleeding and seeks to expand access to bl equipment, which includes but is not limited to gauze,C-A- Bleed instructional booklets, and gloves [4]. Since STB's founding, bleeding control equipment has been placed in airports, stadiums, businesses, schools, and other location Multiple studies have supported the use of bleeding contro equipment in the prehospital setting, reporting improved outcomes after transport to the emergency department.

Figure 1. Stop the Bleed graphic.

Development & Implementation

Inspired by a shooting event near campus, the UREMS executive team took an initial certification course and became certified as Stop the Bleed instructors. UREMS leadership also petitioned the UR Police Department for training equipment, including wound simulation limbs, gauze, and tourniquets. $1,000 in funds were allocated towards the purchase of required materials. Once equipment was obtained, our initial instructors trained and certified the remaining 20 UREMS members as instructors. With a strong instructor base, we were able to offer classes to the larger campus-community.

Figure 2. Images of Stop the Bleed course instruction and events with Richmond fire and ambulance to promote STB.

Five classes were taught in the first semester, free of charge. One instructor led each class, with 2-3 additional instructors assisting with skill demonstrations, facilitating the development of confident instruction. With a 10:1 ratio of students to instructors, each class had the capacity to train between thirty and forty people. Through a combination of advertising at campus announcements, posters, and d-flyers, we recruited both students and faculty for certification. Our instructors also participated in frequent tabling, where they provided brief demonstrations of common bleeding control techniques to the community, unofficially training more community members. A proposal was also written to the UR Police department requesting funding for bleeding control kits in highly trafficked locations on campus. The proposal outlined major buildings on campus, utilizing a threat-analysis and detailing a recommended amount of supplies. This includes retrofitting existing AED sites with the addition of Stop the bleed kits. The Police department submitted the proposal and applied for the American Rescue Plan Act grant, successfully acquiring $8,500.

References

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Discussion

The addition of Stop the Bleed Kits to our campus is a cost-effective solution to ensure the safety of our campus. Our aim is to develop a campus culture of preparation, rather than reactivity; if the unimaginable does occur, we want our campus community to be well-equipped. Improvised tourniquets, such as belts, cravats or wire are less effective and likely to be futile. Equipment in STB kits is essential to the success of the program and makes a significant impact on the success of interventions. We hope to continue to see the growth of the program beyond UREMS through integration into the campus community. This potentially includes training offered during orientation programs, training more departments on campus instead of individuals and working to partner with local organizations such as public school systems. Some difficulties with the program included the increase of price of equipment with the popularization of Stop the Bleed, so that now less kits are able to be acquired than originally outlined. However, the proposal can be adjusted and additional funding can be requested. We hope the program will grow within this established framework and become self-sufficient, leaving a lasting impact on campus beyond our time at UR.

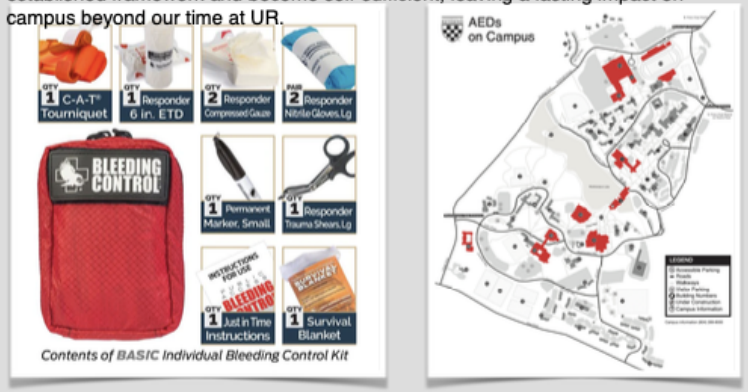

Figure 3. Image of bleeding control kit contents and a map of AED/prominent locations at the University of Richmond.

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