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Working toward Equity in Emergencies through Stop the Bleed: A Pilot Collaborative Health Program with the Somali Community in Seattle

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Abstract

Background—We developed a culturally-adapted program (WE Stop the Bleed) to increase bleeding control knowledge and self-efficacy among Somali individuals, and to build trust between Somali individuals and first responders.

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Methods—WE Stop the Bleed was piloted in the Seattle Somali community with first responders as skills coaches. The program included: 1) adapted ACS *Stop the Bleed program*; 2) cultural exchange. We evaluated knowledge, self-efficacy, and trust between Somali participants and first responders using a pre/post survey.

Results—Attendance exceeded a priori goals (27 community participants, 13 first responders). 96% of participants would recommend the training. Knowledge and self-efficacy improved pre/post (62% to 72%, 65% to 93% respectively). First responders indicated increased comfort with Somali individuals, and participants reported positive changes in perceptions of first responders.

Conclusions—WE Stop the Bleed is a feasible and acceptable program to increase bleeding control knowledge and self-efficacy among participants and build trust between participants and first responders.

INTRODUCTION

Life-threatening hemorrhage is the leading cause of preventable death after an injury.[1] The American College of Surgeons' Stop the Bleed (STB) educational campaign[2] launched in 2015 to teach bystanders basic bleeding control skills in the hopes of saving lives. This campaign, like others, has largely focused on the English and Spanish-speaking populations of the United States. However, approximately 21% of people (61.6 million) living in the United States speak a language other than English at home and more than 8% (25.1 million) are considered to have limited English proficiency.[3] This may limit access to potentially life-saving skills and knowledge. Additionally, limited English proficiency (LEP) and cultural differences between patients and providers can impede prompt involvement of and effective communication with Emergency Medical Services (EMS) during pre-hospital emergencies.[4] There are also well-documented disparities in outcomes related to out-of-hospital cardiac emergencies for patients with LEP,[4–7] which are relevant to time sensitive life-threatening bleeding. Considering the growing immigrant/refugee population in the United States, it is imperative to develop, translate, and integrate culturally appropriate evidence-based interventions. Efforts to culturally adapt and disseminate CPR for persons with LEP are ongoing,[8] but to our knowledge, this has not been done with bleeding control training for persons speaking languages beyond English and Spanish.

During a needs assessment regarding pre-hospital emergencies within the Somali community in King County, Washington (estimated >30,000 individuals), stakeholders identified not only a lack of knowledge of bystander interventions, but also concerns about distrust of first responders (EMS and law enforcement).[9] Stakeholders suggested this may be in part due to prior experiences in Somalia, lack of understanding of the EMS system, and general fear of discrimination or arrest.[9] These findings were similar to results from a prior study among a Chinese community,[10] and focus groups with firefighters (FFs) and paramedics.[11] Therefore, a program to increase knowledge and willingness to perform bystander bleeding control, willingness to access EMS, and trust and familiarity between first responders and communities may be an important step to encourage bystander intervention, quick involvement of EMS, and save lives in bleeding emergencies for individuals with LEP. We aimed to demonstrate feasibility and acceptability of a novel pilot program to deliver a culturally adapted *Stop the Bleed* (STB) curriculum for a cultural/

ethnic minority and limited-English proficiency (LEP) population. Due to findings from our specific needs assessment with the Somali community, as well as high rates of firearm deaths in geographic areas overlapping with high poverty and large numbers of Somali residents,[12,13] we chose to pilot the program in partnership with the Somali community in Seattle.

METHODS

WE Stop the Bleed Program Development

Researchers from the University of Washington partnered with leaders of the local Somali Health Board[14] to design and implement a culturally-adapted collaborative program, building on the ACS *Stop the Bleed* curriculum.[2] The Somali Health Board is a prominent community health organization in Washington State with experience conducting research and implementing programs within the Somali community. Leveraging findings from the qualitative needs assessment with Somali community stakeholders,[9] qualitative focus groups with EMS providers),[11] and feedback on cultural adaptations from a preliminary session with 10 Somali Health providers, this educational program included: 1) complete ACS Stop the Bleed course; 2) roles of EMS and police in emergencies; 3) information on Good Samaritan laws; and 4) small group cultural exchange. For implementation, we divided the program into two components. (Figure 1)

Component I: Education and Skills Training (2 hours)—The first component included an overview of the roles of EMS and police, bystander response, calling 911, and Good Samaritan laws. This was followed by the complete *Stop the Bleed* course.[2] A Somali health provider led the lecture portion in the Somali language, and participants were divided in small groups with first responders teaching participants hands-on bleeding control skills. The official Stop the Bleed slides were intended to be interpreted into written Somali for display, but this was not completed in time for the pilot session and thus English slides were used while content was interpreted verbally. Designated bilingual community partners in each small group assisted with interpretation during the skills session. All first responders were dressed in professional uniforms during the session.

Component II: Cultural exchange and trust building (1 hour)—Using the same small group format from Component I, barriers to care previously identified from focus groups with EMS providers and a needs assessment with the Somali community[9,11] were discussed with a focus on cultural exchange.

This program is based upon the theory of planned behavior and social support theory.[15] Our conceptual model in Figure 2 illustrates how this collaborative learning environment may impact the Somali community and first responders. According to the theory of planned behavior, sharing of knowledge and skills between the Somali community and first responders should increase self-efficacy and perceived and actual behavioral control to perform bystander interventions, as well as improved attitudes toward utilization of EMS. Social support theory suggests this will also increase instrumental support (things others physically do/provide to assist or support an individual) and informational support (information, advice, and suggestions).[15] In addition, increased familiarity in a

non-emergent collaborative learning environment will foster emotional support with the long-term goal of increased trust between the Somali community and first responders, as well as increased comfort of first responders to care for Somali patients.[15] On a large scale, these could have a long-term impact of reducing emergency-related disparities by improving timely utilization of EMS, improving care for Somali patients, and increasing use of emergency bystander bleeding control skills.

Stakeholder Engagement

Researchers met several times over the course of 1.5 years with leaders from the Somali Health Board (SHB) to align all components of the WE Stop the Bleed program with the community priorities previously identified. We also engaged leaders from emergency medical services (fire department, paramedic department) and the police department, specifically involving individuals working in geographic areas with large Somali populations. Lastly, we worked together with the Harborview trauma surgery department to assist with organizing and teaching the Stop the Bleed curriculum.

Cultural Adaptation

Two general forms of cultural adaptation include modifying program content and modifying the form of program delivery.[16] We worked to address both using a heuristic framework, which involves four components: 1) information gathering; 2) preliminary adaptation design; 3) preliminary adaptation tests; and 4) adaptation refinement.[17] We gathered information by conducting a preliminary needs assessment and partnering with the Somali Health Board to design the program. We did a preliminary program adaptation and then held a preliminary Stop the Bleed course with 12 Somali health providers (included a physician, pharmacist, nurses, and CPR instructor). All health providers gave further feedback on cultural adaptation of the program based on three dimensions of adaptation: cognitive information processing, affective motivational characteristics, and environmental characteristics.[16] Their feedback was integrated into the program and is described in the results.

Program Evaluation

We utilized a mixed methods approach to evaluate the WE Stop the Bleed program for the Somali community and for emergency first responders. We report two primary quantitative outcomes to demonstrate feasibility and acceptability of the program: 1) the proportion of minimum goal attendance defined a priori for Somali community members (goal N=24) and first responders (goal N=6); and 2) the proportion of participants that would recommend this training to a friend or colleague (goal>80%). The goal minimum attendance was based upon the physical capacity of the location, funding limitations, the instructor to student ratio required for *Stop the Bleed* (no less than 1 instructor per 8 students), and the number of first responders needed to participate in small group discussions (at least one per small group of 4 to 8 Somali participants). This data was collected through attendance records (sign-in sheet) and a post-intervention anonymous survey respectively. These outcomes were chosen to objectively measure feasibility of participant recruitment, as well as subjectively measure acceptability through participant willingness to recommend the program. Additionally, we collected qualitative feedback on the acceptability of the process of the program from

both Somali individuals and first responders through open-ended questions on the post-intervention survey.

Knowledge, self-efficacy, willingness to perform bystander bleeding control, and willingness to access EMS (Figure 2) for Somali individuals, were evaluated with a quantitative pre/post survey. There is no standard evaluation for the ACS *Stop the Bleed* curriculum, and so we created a survey with the expertise of our surgical partners. Knowledge questions were multiple choice. Based on experience with prior projects, our SHB partners advised that we avoid metrics that utilize Likert scales due to their inability to be translated in a way that retains meaning and applicability to Somali individuals. Given this, we created questions to measure self-efficacy and willingness that utilized a more straightforward “yes” or “no” answering structure. These questions were vetted and approved by the SHB. We believe this was best method to capture the data we were seeking while minimizing stress and frustration for participants. Surveys were verbally interpreted for Somali-speaking participants by our bilingual community partners. Results are reported as proportions of answers correct. Statistical significance tests were not used given that this was a pilot program with the primary aim of demonstrating feasibility and acceptability.

Trust, familiarity, and comfort between first responders and Somali individuals were evaluated with qualitative, open-ended questions on a post-intervention survey for both groups. As previously stated, Likert scale questions which might be used to measure these constructs in English do not translate well for Somali individuals. Dichotomous “yes or no” questions would also likely be insufficient to capture change in trust and comfort, so we utilized open-ended questions to gather more rich information. Surveys were distributed prior to starting the session when participants signed-in, and then again at the end of the session. Given that some participants were anticipated to be illiterate, bilingual community partners were available and ready to assist with completing the written surveys. A $25 gift card incentive was given to community members for survey participation, as well as a certificate of completion. First responders who attended were considered on-duty and received regular pay from their respective departments.

Participant Recruitment

Somali participants were recruited by our research partners on the Somali Health Board through word of mouth at community and religious gatherings and Facebook page advertising (https://www.facebook.com/SomaliHealthBoard/), which is their typical method of communicating with community members. FFs, paramedics, and police officers were recruited from stations/units serving the Somali community with the assistance of EMS and police leadership. The paramedic and police participants strictly volunteered (with pay from their respective departments), while the FF participants were requested by their leadership to attend during their shift with coverage from other stations.

Institutional Review

The program design and evaluation were reviewed and determined to be exempt by our institutional review board.

RESULTS

During our information gathering stage, several cultural concerns regarding emergency pre-hospital care were identified, including concerns about distrust and fear of police and EMS personnel, fear of personal liability when acting as a bystander during an emergency, maintaining modesty of female patients with gender-discordant providers, and removal of shoes/boots when entering Somali homes or Mosques. Several cultural adaptations were made to the WE Stop the Bleed program based upon this information, feedback from the Somali Health Board, and input from the Somali health providers that attended our preliminary *Stop the Bleed* course. (Table 1).

Attendance exceeded a priori goals with 27 community participants (goal N=24) and 13 first responders (goal N=6). A total of 10 EMS personnel and 3 police officers were present at various points throughout the session. Survey response rate for community participants was 89% (24/27) for the pre-survey and 100% for the post-survey. The first responder survey response rate was 62% (8/13) pre-survey and 54% (7/10) post-survey. All first responders who participated in surveys were EMS personnel (3/5 FFs and 5/5 paramedics). Community participants were 75% (18/24) female with a median age of 37 years (range 18 to 90). (Table 2A) Most (92%, 22/24) spoke English less than “very well”, and 71% (17/24) spoke only Somali. All were born outside of the United States. EMS providers were 88% (7/8) male with a median age of 42 years (range 31 to 47). (Table 2B) In addition to English, one spoke Spanish and one spoke German. Police officers were 100% (3/3) male. Further demographic information for police is not available.

Most (96%, 23/24) participants would recommend the training to a friend. Participant willingness to call EMS and to perform bleeding control was 100% on the pre and post surveys. (Table 3) Two participants stated they would call someone else before 911 (8%, 2/24) pre-survey compared to one (4%, 1/27) post-survey. Bleeding control knowledge improved from 62% to 72%, and self-efficacy to perform bleeding control skills improved from 65% to 93% pre-to-post survey. (Table 3) Many believed they would be held responsible if the person they tried to help in an emergency had a bad outcome. While this did improve after the session describing the Good Samaritan laws, these fears were not completely relieved (59% pre vs 42% post).

Qualitatively, most participants conveyed beliefs that EMS providers are an important resource available to help them in emergencies and that they will reach out for help to EMS when necessary. Some indicated a positive change in perceptions of first responders. One participant wrote, “I now know all [FFs, paramedics, and police] are the first people to ask for help and are not bad people” (further comments detailed in Table 4). Similarly, EMS providers in attendance conveyed increased comfort and familiarity with the Somali culture/community and reported increased confidence when working with this community in emergency situations in the future. (Table 4)

The hands-on skills training that is a standard part of *Stop the Bleed* training and the small group cultural exchange were noted by both community participants and first responders as the best parts of the program. Additionally, throughout the session, Somali participants

repeatedly brought up concerns about law, liability and personal safety. Much additional time was required to discuss and address these concerns. These and other lessons learned are described in Table 5. Suggested steps for adaptation and implementation of a WE Stop the Bleed program for other cultural/minority groups are outlined in Table 6.

DISCUSSION

With the growing immigrant/refugee population in the United States, it is important to develop and implement culturally appropriate health interventions such as *Stop the Bleed* for diverse communities. Fear and distrust of emergency first responders (EMS and police) are prominent within some LEP communities, which may negatively influence pre-hospital interactions.[10,18,19] Using a heuristic framework, we partnered with the local Somali Health Board, EMS, and police to develop and implement a culturally-adapted program, WE Stop the Bleed. We made several adaptations, including expanding the didactic portion of the *Stop the Bleed* course to include information on the roles of EMS and police in emergencies, Good Samaritan laws, and small group cultural exchange between Somali participants and first responders. Attendance at the pilot session exceeded expectations for both Somali participants and first responders, and nearly all participants would recommend the training to a friend. Results of our pre-post evaluation demonstrated an increase in bleeding control knowledge, self-efficacy, and understanding of personal liability in emergency situations. We also found a qualitative increase in first responders' comfort interacting with Somali individuals, and a positive change in Somali participants' perceptions of first responders.

Cultural adaptation of health programs involves modifying existing interventions that were developed and/or implemented in majority populations to provide access for non-majority communities[17] while maintaining the fidelity of the program.[16] One challenge in evaluating the fidelity of any *Stop the Bleed* program is that there is no standard metric or evaluation. However, one prior study evaluated the impact of the *Stop the Bleed* curriculum on 218 participants' self-efficacy to perform bleeding control ("would use a tourniquet in real life") in an English-proficient population, and found a very similar increase in self-efficacy (64% pre to 96% post) compared to our program.[20] They also noted an improvement in bleeding control knowledge specific to tourniquet application.[20] To our knowledge, there is no other published literature on culturally adapted *Stop the Bleed* programs. Limited published information on health interventions for the Somali population exists in general, though Murray et al. in San Diego did publish their experience adapting an intervention focused on increasing physical activity in the Somali female population.[21] Similar to our program, they also used a heuristic framework and discovered pertinent barriers through working with stakeholders from the community. They were able to adapt the program and significantly increase physical activity among the Somali women involved, demonstrating the importance and efficacy of appropriate cultural adaptation. One specific barrier they identified was maintaining modesty between genders, a concern we also identified. For the WE Stop the Bleed program, this led to an adaptation to separate Somali men and women into separate small groups during the hands-on skills session (having gender-discordant instructors was acceptable). We also chose to address this concern (among others) openly during the small group cultural exchange such that Somali participants and first responders

could discuss how to handle emergencies with gender discordance between providers and patients.

Throughout the didactic lecture portion of our curriculum, participants repeatedly brought up concerns regarding law and liability in emergencies. We had anticipated this concern and described Good Samaritan laws in Washington State as part of our cultural adaptation of the program, but our short explanation was not enough to allay the widespread fear of being arrested or wrongly accused of a crime. The Somali community has strong interpersonal ties and the ability to disperse knowledge to the Somali population across the nation. This is a possible explanation of how one incident involving liability after attempting to help in an emergency in a different state may have impacted an entire community's attitudes regarding helping as a bystander in a medical emergency. With the assistance of police officers in attendance, we clarified that Washington state law protects bystanders who attempt to help in an emergency from being held liable regardless of a good or bad outcome for the injured person. This clarification was helpful, but interestingly, even after the session 42% (compared to 59% pre-session) of community participants still thought they could be held responsible if a person they helped during an emergency had a bad outcome. Our results may represent a larger distrust of the legal and emergency response system that will likely require ongoing efforts from both a community and systemic perspective to ameliorate.

There are several limitations to consider when interpreting the results of our pilot program. Due to time and funding constraints, our presentation slides and surveys for this pilot intervention were not translated into written Somali, but rather were interpreted verbally to Somali-speaking participants by bilingual community partners. There may have been some differences in interpretation of the questions amongst participants. This may have also contributed to a significantly lower response rate for the open-ended questions than for the multiple-choice questions, and responses may not reflect the opinions or perspectives of all participants. Our results may be affected by selection bias, as those who chose to come to the training may be different at baseline than those who did not attend, perhaps illustrated by 100% willingness to call EMS both pre and post survey. Our recruitment methods utilizing online and social media tools may also create selection bias, and while anecdotally most members of the community have access to internet capable phones regardless of socioeconomic status, we did not collect this information. The three police officers were not present at the beginning or end of the session and did not complete surveys, thus our data does not reflect their thoughts or opinions of the program. The paramedics present volunteered to assist with the training and their responses may provide a biased perspective from those who already thought the training would be helpful. The firefighters present were assigned to attend and their responses, including the lower survey response rate, may be less biased. Our overall sample size is small after only one pilot session, and several additional sessions would be required to gather enough responses to be confident in our results.

Importantly, while the conceptual model of WE Stop the Bleed was developed to be applicable for many different cultural groups, it has only been adapted for the Somali community at this point. Additional adaptations would be required for implementation for other cultural communities. It is worth noting that fear and distrust of law enforcement and EMS is not unique to the Somali community, and this grassroots program may help combat

biases due to race, ethnicity, and religion through collaboration and familiarity. It may even have ripple effects such as increasing visibility of and access to careers in EMS and law enforcement for underrepresented minorities. However, beyond opening conversations about challenging topics, it cannot address larger systemic issues such as policies regarding undocumented immigrants, structural racism, and socioeconomic inequities. These issues will require ongoing advocacy and policy changes to continue to work toward health equity.

CONCLUSIONS

Our culturally adapted WE Stop the Bleed is a feasible and acceptable program to increase bleeding control knowledge and self-efficacy among Somali individuals, and to build trust between Somali individuals, EMS, and police. The unique component of our program model is the facilitation of a bi-directional learning environment demonstrating that both first responders and members of the Somali community have important knowledge that is worth disseminating. This redistribution of power represents a paradigm shift into a more collaborative health education environment. In this model, EMS and police attendees share not only the responsibility of teaching, but the responsibility of learning as well. This may be particularly important for populations experiencing health disparities and structural socioeconomic barriers to health. We hope that, with refinement specific to different cultural norms, it may become a model for integrating cultural exchange with other health education programs.

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Highlights

- We culturally adapted Stop the Bleed for Somali persons and first responders
- Partnership, preliminary data gathering, and iterative adaptations were instrumental
- Covered Stop the Bleed course, the roles of first responders, and personal liability
- Small group cultural exchange between participants and first responders was valuable
- The program is feasible and acceptable to improve knowledge, self-efficacy, and trust

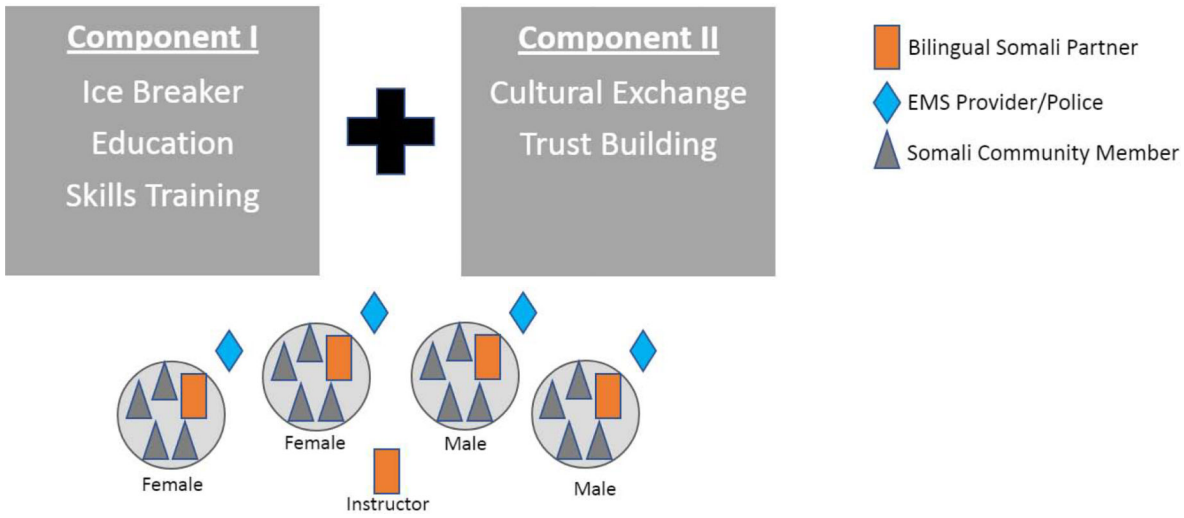

Figure 1.
WE Stop the Bleed Program Components and Implementation Model
(Note to journal: please reproduce in color on the web only)

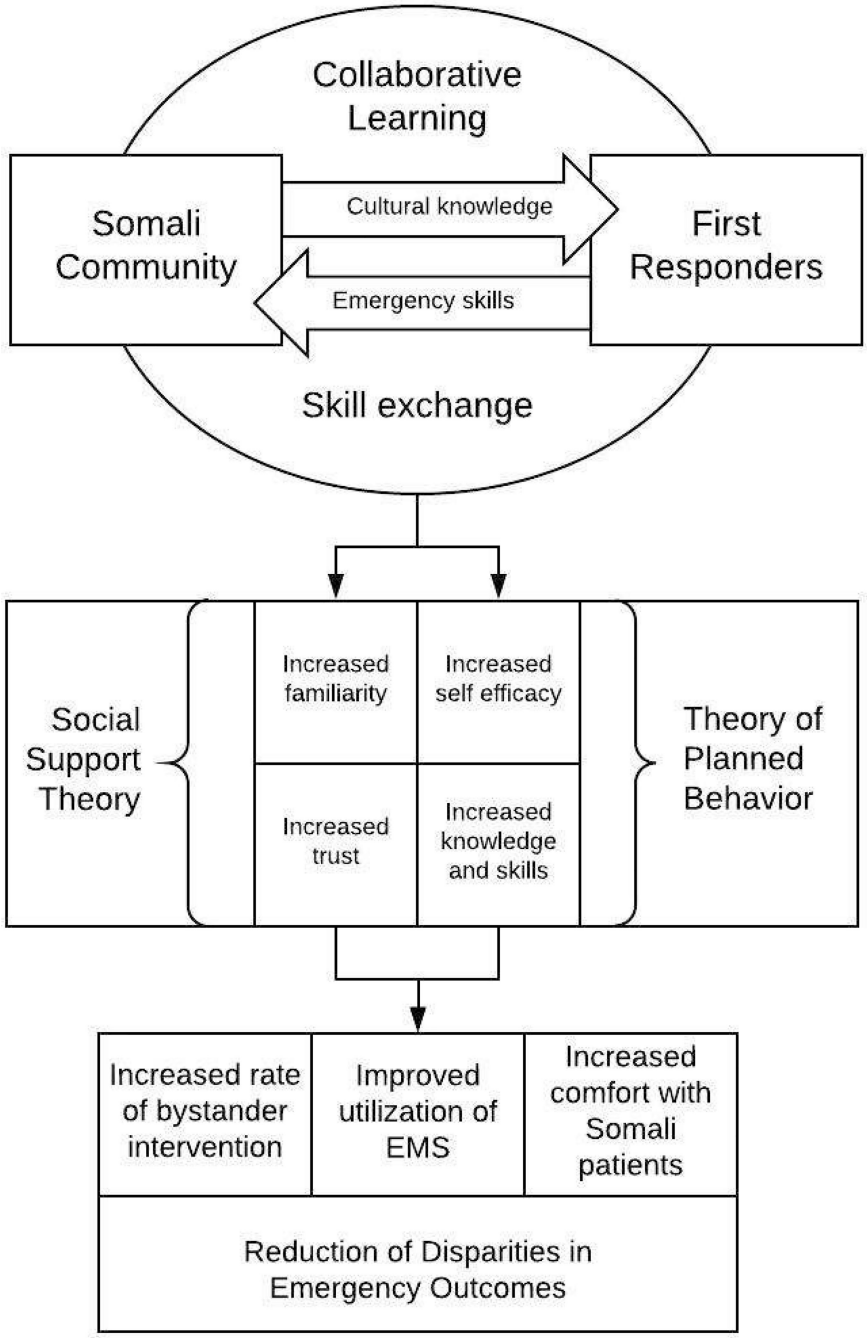

Figure 2.
Conceptual Model
Note: The intermediate outcomes of familiarity, trust, self-efficacy, knowledge, and skills are measured in this pilot program

Table 1.

Adaptations made to the Stop the Bleed program

Adaptation Dimensions	**Adaptations Made**			
Cognitive information processing [a]	Gave background information on 911, what to expect when calling 911, roles of FFs, medics, and police officers in emergency response	Warning added prior to showing graphic photos of injuries	Thoroughly described tourniquets to ensure it is not described simply as a belt, but as a specially made medical device (no direct translation)	Gave additional information about protection from blood borne illnesses
Affective motivational characteristics [b]	Addressed concerns about personal liability through describing Good Samaritan laws at the beginning [*]	Separated men and women into different small groups during hands-on skills training	Provided certificates demonstrating completion of the training	Added small group cultural exchange
Environmental characteristics [c]	Held the session at a known location within the Somali community			

[*] Pervasive fear of being arrested or accused of wrongdoing was identified as the most important cultural consideration by stakeholders

[a] Cognitive information processing includes considerations of language, age, developmental level, and cultural and conceptual equivalence.[16]

[b] Affective motivational characteristics include gender, ethnic, religious, and socioeconomic factors specific to a culture. Some content may need modification to avoid cultural conflict or reactance. [16]

[c] Environmental characteristics include factors such as physical/geographical location and access to resources like transportation. [16]

Table 2A.

Characteristics of community participants

Characteristics	Community participants N = 24
Female (%)	18 (75%)
Median Age (range)	37 (18–90)
Race (%) **Black/African American**	 24 (100%)
Languages Spoken **Somali and English (%)** **Somali and Another (%)** **Somali only (%)**	 6 (25%) 1 (4%) 17 (71%)
Speak English less than “very well” (%) (limited English proficiency)	22 (92%)
Born outside the U.S (%)	24 (100%)
Median years in the US (range)	11 (3-20)

Table 2B.

Characteristics of EMS providers

	Firefighter/EMT N = 3	Paramedic N = 5	All N = 8
Male N, (%)	3 (100%)	4 (75%)	7 (88%)
Age: median, (range)	43 (42-46)	39 (31-47)	42 (31-47)
Median years of EMS experience (range)	16 (4-22)	8 (1.5-20)	8 (1.5-22)
Race **White**	 3 (100%)	 5 (100%)	 8 (100%)
Languages Spoken (%) **English** **Spanish** **German**	 3 (100%) 0 (0%) 0 (0%)	 5 (100%) 1 (20%) 1 (20%)	 8 (100%) 1 (12.5%) 1 (12.5%)

Table 3.

Pre and post survey evaluation of knowledge of bleeding control, self-efficacy to perform bleeding control, willingness to call EMS, and willingness to perform bleeding control

	Knowledge (10 questions)	Self-efficacy(1 question)	Willingness to perform bleeding control (1 question)	Willingness to call EMS (1 question)
Pre-survey (% correct)	62%	64%	91%	100%
Post-survey (% correct)	72%	93%	93%	100%

Table 4:

Representative quotes from community and EMS participants

Question Prompt	Would you be willing to call 911 if you saw a medical emergency? Why or Why Not?	How did this session impact your thoughts about calling 911?	How did this session impact what you think about firefighters coming to help in an emergency?	How did this session impact what you think about paramedics coming to help in an emergency?	How did this session impact what you think about having police come to help in an emergency?
Participant responses	"Because they are good, hardworking people that do their job accordingly. They save lives " "I can call 911 when the situation of the person is beyond my control"	"The training empowered [participant] to know when to call 911 and what to do before first responders arrive " "It impacted me in a positive way. It allowed me to change my perspective to benefit and help others "	"I think they are there to help and not to harm." "I am more comfortable calling."	"paramedics are also here to stabilize me until hospital " "paramedics are there to help with medical emergencies"	"they are also here to help me until I get to hospital" "the police are very helpful and always there to help" "it changed our perspective about police"

Question Prompt	What did you learn that might be useful when responding to future calls involving Somali patients/individuals?	How did this session impact what you think (i.e., concerns, reservations, or challenges you may have had previously) about responding to calls involving Somali patients/individuals?
EMS responses	"I heard that boots + provider gender are less important in emergencies. It would be nice if providers could use boot cover [when entering a house or mosque] when they are able." "Not wearing shoes in mosques. Also trying to do better job of keeping the modesty of patients protected." "That there is some anxiety in regard to interaction with police even fire department."	"I think I will be much more comfortable around Somali people" "They are eager to help their community and help us help them. While their culture maybe different they are just as welcoming " "Be aware of concerns, fears, apprehensions other people have + do what you can to help minimize them. Community outreach is very important"

Table 5.

Lessons learned

Lesson	Description
Involvement of community stakeholders from the beginning is key to community buy-in and participant recruitment	The Somali Health Board and local EMS leadership were involved early in program development and were able to assist in recruitment with good knowledge and endorsement of the program. Importantly, first responders were able to participate while receiving regular pay.
Translation of materials requires significant time and skill	Evaluation surveys and power point were not able to be translated in time for the first pilot session
Development of a useful evaluation tool that translates linguistically and conceptually is an iterative process	Despite review of evaluation questions by the Somali Health Board, some questions were still confusing for participants and will need to be revised for future evaluations
Typical academic survey strategies may not work in some community contexts	Likert scales do not translate well and were not used. Also, the concept of using a unique, anonymous identifier to track individual level data was confusing for participants
Personal liability as a bystander in emergencies is a widespread concern and required more time than anticipated	Despite anticipating this concern, we still spent most of our Q&A time discussing this issue
Initial background on 911 and emergency response was very useful	Many participants were not aware of the roles firefighters and police officers play in medical emergencies
Expertise of police, firefighters, and paramedics present should be used to answer questions pertinent to their roles.	Firefighters, paramedics, and police were not actively involved in the initial lecture portion of the session and could have offered valuable input in answering participants' questions. Our police partners were very helpful answering questions regarding personal liability in emergencies
Small group discussion with bi-directional cultural exchange was very well received and will require more time in the future	Small group discussion was held for 20 minutes at the end of the session and many people gave feedback that it was too short
Certificates for course completion were important for community participants	Certificates demonstrating course completion was more important for many participants than the incentive for survey completion. Many described a desire to list it on their resume for job applications

Table 6.

Suggested steps for adaptation and implementation of future WE Stop the Bleed programs

1.	**Partner and engage** with community leaders and first responder leaders
2.	**Secure funding** to pay community partners for their time and expertise and agree on budget for program. Ask for police department and EMS to pay their employees to participate in sessions
3.	**Conduct initial STB session** with community leaders and health care providers to get feedback on cultural adaptation (see Table 1 for adaptation dimensions) and train Stop the Bleed instructors within the community
4.	**Incorporate cultural adaptations** and additions (e.g., background information on Good Samaritan Law, roles of first responders)
5.	**Design evaluation tool** based on specific needs of the community (if evaluation needed/desired) and get feedback from stakeholders
6.	**Translate materials** (power point slides and evaluation tools) early
7.	**Recruit** for pilot session with assistance of community and first responder partners
8.	**Implement pilot WE Stop the Bleed** session
9.	**Make iterative changes** to structure and evaluation tools based upon feedback and evaluation results
10.	**Implement additional WE Stop the Bleedsessions**. Repeat Steps 9 and 10.