University of Virginia's Step Up! Program: An Evaluation

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5/3/2012

Contents

ABSTRACT

The University of Virginia's Step Up! program is an educational intervention designed to determine participants' opinions on their role and others' role in risky situations and give them the tools to intervene in such situations. An evaluation of the program compared pre-intervention and post-intervention data from 1,626 students.

Results indicated that the Step Up! program was effective in increasing the likelihood of students recognizing risky situations, assuming personal responsibility for the situation, and using effective tools for intervening safely as shown by the increase in the percentage of people who agreed with the five statements when the pre-intervention survey was compared to the post-intervention survey.

Additionally, differences in student-athletes and non-student athletes were noted. A lower percentage of student-athletes agreed with the five statements on the pre-intervention survey compared to non-student-athletes. However, on the post-intervention survey, a larger percentage of student-athletes agreed with the five statements compared to the non-student-athletes.

Finally, recommendations were made to improve the Step Up! program. These recommendations included implementing a follow-up survey to determine program effects in the long-term, collecting identifiable student data to link pre- and post-intervention scores, and implementing student suggestions to increase participant "buy-in" of the program. More research is needed to determine whether this change in students' opinions has influenced their actions in a long-term capacity.

INTRODUCTION

The way people choose to behave and the social norms that dictate behavior have profound effects on public health. If social norms do not support healthy and safe behaviors, the norms can elicit bad health outcomes. College students in particular are at-risk for engaging in risky and unhealthy behaviors.[1]

According to the American College Health Association (ACHA), college students are a unique population with specific health risks and needs. Biannually, the ACHA conducts a National College Health Assessment through the use of surveys. These surveys measure overall health, safety, alcohol and drug use, sexual health, nutrition, mental and physical health, as well as impediments to academic performance. When this national survey was given in the spring of 2011, a majority of subjects (62%) reported using alcohol in the past 30 days. Of the same students who reported drinking alcohol, 33.7% reported doing something that they later regretted and 28.8% reported forgetting where they were or what they did. Eighteen (18%) percent of those who reported drinking alcohol had unprotected sex and 14% reported injuring themselves.[1] The ACHA survey is revealing a large problem in which college students are engaging in risky behaviors that could potentially lead to serious injuries and harm students' health.

One strategy to reduce the amount of injuries college students experience is to target passive bystander behavior.[2] This phenomenon, called the bystander effect, has been extensively studied in the field of psychology[3], but has far-reaching health effects for this population in particular.

Background

Psychologists first identified the bystander effect after a young woman was stabbed to death in a residential section of New York City in 1964. At the time, newspapers reported that thirty-eight witnesses had observed the attack, but none of them had done anything about it. The

young woman, named Kitty Genovese, was attacked multiple times over the course of half an hour, but nothing was done to help her.[4,5] Eventually, details of the case were found to be fabricated; nevertheless, the story of Kitty Genovese spurred on the research of passive bystander behavior and its effect.[3]

The bystander effect shows how social norms that favor intervention can be weakened through the presence of other witnesses. The presence of other onlookers allows an individual to diffuse his/her responsibility and blame to others. The first study on the bystander effect by John Darley and Bibb Latane found that the diffusion of responsibility and blame increased as more witnesses were present.[4] The likelihood of a victim receiving help from witnesses decreased as the number of onlookers increased. Darley postulated in his study that a lack of action is due to an onlooker's perception of others' presence rather than the influence of other onlookers' actions.[4]

A group's effect on passive bystander behavior was further studied by Bibb Latane.[6] In this study, individuals were placed in a room to fill out a survey. While filling out the survey, smoke would enter the room through a closed door. When alone, 75% of subjects responded to the smoke. When subjects were placed in the room with two other confederates who did not appear to notice the smoke, only 10% of subjects reported the smoke. When placed in a room with two other naïve bystanders, 38% of subjects reported the smoke.[6] This study further proved Darley's point – individuals are less likely to engage in action if they think others are nearby.[6] Other research has confirmed the group's effect on the likelihood of intervening.[4,7-10] Latane, however, went a step further and postulated a theoretical framework for how subjects decided to report the smoke. Before individuals can intervene in a situation, they must do three things – notice the event, interpret it as an emergency, and decide if it is their responsibility.[6]

Because the bystander effect is one of the most studied phenomena in psychology[3], many studies have aimed to further explain how people act in a situation which requires intervention. A study done by Peter Levy has demonstrated that even non-emergency situations produce the same behavior pattern seen in emergency situations.[9] As a situation became more ambiguous, the bystander was less likely to intervene since they were unable to interpret the situation accurately.[9]

However, the bystander effect is not simply influenced by the number of onlookers. Social norms – rules that influence behavior – also play a part. In a study where bystander behavior of service group members and fraternity members was compared, it was found that service group members were more likely to intervene than their fraternity counterparts.[11] Intervention was even more likely as their shared social norms were made salient or more prominent in discussions leading up to the observed behavior.[11] Other studies have shown that friends and acquaintances are more likely to help as a group compared to strangers.[11,12]

Gender also plays a role in the bystander effect, though it is not clear to what extent. Three psychology experiments reported that men are more likely to intervene then women.[7,10,13] However, other studies have not confirmed this.[14,15] Men claim to need support from their peers if they decide to intervene[16] and female victims are twice as likely to receive intervention as their male counterparts.[10,13]

<u>Theoretical Framework</u>

A conceptual framework is needed to describe the process by which an individual decides to become a passive bystander or to intervene. Through various psychology experiments and research, psychologists have hypothesized constructs to include in such a conceptual framework. The first studies on the bystander effect starting in 1968 claimed that social norms play a pivotal

role.[4,6,8-10,16] Yet other studies claim that perceived control[6] and the attitudes of the individual[9,16] play a large role.

Using the suggested constructs, the Theory of Planned Behavior may explain most of the decision process for a bystander's actions.[17] The Theory of Planned Behavior (TPB) is an extension of the Theory of Reasoned Action (TRA), which was developed in an effort to better comprehend the connection between true behavior performance and individual intentions and attitudes towards that behavior. Both theories assume behavioral intentions are the best way to predict actual behavior.[18] Studies have shown that this is a fairly accurate assumption and that intentions are able to reliably predict future behavior in a particular situation.[19] The TRA and TPB both assert that attitude and subjective norms mold behavior intentions, however the TPB adds another variable, perceived control, to help account for external factors. Perceived control is defined as barriers and perceptions of barriers that influence an individual's intention or ability to perform a behavior.[18] The addition of perceived control (also referred to as perceived behavioral control [PBC]) does increase the ability of the theory to predict behavioral intentions.[20] While attitude, subjective norms and perceived control are the underlying variables that form a person's intentions, they are also formed by additional constructs themselves.[18,21]

A belief an individual holds about a behavior's outcomes comprises their attitude towards that behavior.[18] This appraisal of the behavior can be either positive or negative[19] and be carried out in terms of a cost / benefit analysis.[21] An individual will perceive a behavioral outcome and then decide if that outcome is good or bad. For example, an individual could hold the belief that speeding will save time, and that saving time is good. This shows a positive attitude (saving time is good) towards a behavior (speeding).[22]

Subjective norms are a person's perception of how others feel about a particular behavior, be it positive or negative.[18] This could also be thought of as the social pressures an individual feels regarding a behavior[19] that is then weighted by how important the people exhibiting the pressure are to the individual, i.e. how much does the individual want to comply with or make the other happy.[22]

Perceived control addresses the power an individual feels surrounding a behavior – how easy or difficult it will be to perform such a behavior. It takes into account potential obstacles and facilitators to performing a behavior and individuals' perceptions about their own ability to overcome or utilize them.[18] The more control individuals feel they have over a behavior will lead to more positive perceived control (and vice versa).[18]

However, the TPB is not an all-encompassing conceptual framework. Bystander effect studies have also cited the necessity of addressing moral agency, costs of intervening, and the various systems of influence within the framework.[4,6,7,23,24]

Moral agency is addressed within the Social Cognitive Theory (SCT) conceptual framework. This theory postulates that moral agency can make an individual refrain from passive bystander behavior and encourage the individual to intervene. In order for this moral agency to aid in the individual's decision process, it must be activated by a "psychosocial mechanism". A "psychosocial mechanism" is the intersection at which societal factors and individual attitudes and behaviors overlap to influence health. "Psychosocial mechanisms" which improve health outcomes can be hindered in a number of ways including diffusing responsibility and blame and minimizing the consequences of risky behaviors.[23]

Moral agency and its potential promotion/hindrance of healthy behaviors are best shown in two important bystander effect psychology experiments. The first by Darley claimed that

diffusion of responsibility was the reason why subjects claimed to not intervene when a peer was having a seizure.[4] The other experiment by Peter concluded that non-emergency situations produced the same behavior patterns, and intervention depended on an individual's perceptions of the consequences in addition to the diffusion of responsibility to others in the room.[9]

Another study stressed that bystanders had to consider the balance of costs and rewards for intervening in their decision process. This study looked at the difference in time it took for a person to be helped after a fall if they were drunk or had a cane. Results showed that victims with canes were helped within a median latency of 5 seconds compared to the median latency of 109 seconds for the drunk victim. The researchers concluded that the costs of helping the intoxicated victim are higher due to greater disgust, and costs for not helping are lower due to less self-blame and the victim's responsibility in his or her fall.[7] Considering the costs and rewards of intervening in risky situations will aid in determining individual behaviors and changing passive bystander behavior.

Finally, the bystander phenomenon is not purely something that happens within the individual sphere of influence, but also has community and societal influences. A study done by Victoria Banyard suggests that community-level variables be taken into consideration in explaining bystander behavior, such as peer and family influences, characteristics of the situation, as well as the culture of the community. These community-level variables can be as broad as a community's trust in law enforcement or as detailed as a community's access to a crisis center.[24]

The combined constructs from the TPB, the Social Cognitive Theory, costs of intervening, and the ecological model can create a comprehensive framework for describing a bystander's decision to intervene.[24,25] These constructs influenced the development of

educational interventions on passive bystander behavior including the one assessed in this study. Due to this influence, the educational intervention includes five steps: 1) noticing the event, 2) interpreting it as risky, 3) assuming responsibility for addressing the problem, 4) identifying a course of action, and 5) implementing that course of action.[26,27] These steps were developed from constructs rooted in previously discussed theories and evidence-based literature.[4,28]

Focus of Intervention

Most educational interventions targeting the bystander effect on college campuses have been associated with sexual assault prevention.[16,24,29-34] Evaluation of traditional sexual assault prevention initiatives has failed to demonstrate a positive impact.[30] However, interventions that incorporate bystander intervention training have proven more successful.[30] Some examples of these successful interventions include InterACT Sexual Assault Prevention Program,[29] a sexual violence program at the University of New Hampshire,[32] the Men's Program,[35] and the Green Dot program.[33]

The InterACT program at the California State University - Long Beach provides an interactive curriculum with a focus on skill building using interactive performances with the audience. The first part of the program includes trained actor-educators performing two scenes in which a male character is hazed by his friends and a female character tells her friends that she has been raped. The second part of the program asks for participants to call out suggestions or come up to the stage to enact behaviors that would change the result. Using a pretest, posttest, and a two month follow-up survey, evaluators found the program was successful in increasing beliefs about the effectiveness of bystander intervention and resulted in increasing the likelihood of participants to intervene in problem situations in the future.[29]

The evaluation of the University of New Hampshire's sexual violence prevention program also documented improved measures of attitude, knowledge and behavioral intentions concerning bystander behavior compared to a control group. The program included one or three 90 minute prevention programs with trained facilitators leading single-sex groups. The program focused on prevalence, causes, and consequences of sexual violence. Role playing, creating a bystander plan, signing a pledge, and learning about helpful resources such as campus police and the rape crisis center were also included. The facilitators were students who were trained in the prevention program. Banyard determined that this program was not only effective in increasing the likelihood of intervening in risky situations when compared to the control group who received no prevention program, but also that this program appeared to benefit both genders. Additionally, the effects of the program were still detectable at 2-, 4-, and 12-month follow-ups.[32]

The Men's Program, created by the non-profit organization, One in Four, is a single-sex educational intervention training designed to help men understand how to help women recover from rape, increase the likelihood of bystander intervention in high-risk situations, and encourage men to change passive bystander behavior.[36] This program has been implemented in forty-one colleges across the United States and has also been successful in reducing men's rape myth acceptance, enhancing the perceived effectiveness of bystander intervention, and increasing the willingness to intervene.[35] This single-sex program focuses on increasing survivor empathy by starting the program with a pretest that determines participants' attitudes concerning sexual assault and a video describing a male-on-male rape experience. Discussion then turns to the similarities of male-on-male rape and a male-on-female rape. At the end of the training, posttests are given to participants in order to compare with their pretest scores.[35] In 2005, a new section

focusing on risky alcohol-related situations was added based on evidence that in 72%-81% of cases where a female is raped by a male, the female victim is intoxicated.[35] Like the other programs described above, the Men's Program formally trains facilitators.[35]

Similar to the InterACT program, the successful Green Dot program was comprised of two phases. The first phase included a 50 minute motivational speech introducing the participants to the bystander effect and encouraging the audience to prevent risky behaviors. The speech was given by Violence Intervention and Prevention (VIP) Center staff at the University of Kentucky. Phase two included an intervention program called Students Educating and Empowering to Develop Safety (SEEDS) which consisted of small intensive sessions where participants were trained to recognize and implement helpful intervention behaviors. Phase two was also facilitated by VIP staff. Participants were recruited using a peer opinion leaders (POL) strategy which systematically selected peer leaders who have influence in their community. By selecting these participants, these intervening behaviors can become more ingrained into the community since they are "modeled by influential peers."[33,34] Due to this methodology, the Green Dot program's cross-sectional evaluation of the student population reported that students who received SEEDS training were more likely to intervene compared to students who merely heard a lecture about sexual violence on campus.[33]

Other risky health behaviors such as academic integrity, anger, mental health, dating violence, and discrimination are not addressed by these programs. Given the prevalence of such behaviors in college students, there is a need for a program that is more generalizable to risky behaviors that still uses these successful strategies for addressing passive bystander behavior.

Step Up! Program

In 2007, Becky Bell, Associate Athletic Director at the University of Arizona, worked with the NCAA to launch a pilot study at the University of Arizona, University of California – Riverside, and the University of Virginia (U.Va.) to study the bystander effect in student-athlete populations. The pilot studies conducted by the NCAA and the University of Arizona found that almost 90% of student-athletes agreed that a problem they witnessed could have been avoided with bystander intervention and that 85% of student-athletes were willing to learn such skills.

Bell developed the Step Up! program to give them the tools to intervene in problem situations while tailoring the training to the student-athlete experience. The goals of the educational intervention are to increase knowledge, understanding, and awareness of helping behaviors; increase motivation for intervention; develop skills and confidence to respond to problems; and ensure the safety and well-being of self and others.[26] Previous evidence has shown that prevention programs can be successful in student-athlete populations and have the potential to help change the college culture if the student-athletes endorse the norms of intervention.[34]

At the University of Virginia (U.Va.), athletic teams and the Alcohol and Drug Abuse Prevention Team (ADAPT) peer educators received the Step Up! educational intervention beginning in 2009. In 2010, the Step Up! program was adapted by U.Va. student leaders, the Gordie Center for Substance Abuse Prevention, and the Athletics Department's Life Skills Center to include all students, not just student-athletes. The training became part of a broader University-wide campaign called Let's Get Grounded. In the fall of 2010, Step Up sessions were conducted for a wide range of student organization at a variety of locations including academic classrooms, student activity spaces, library rooms, and at fraternity and sorority chapter houses.

In order to receive the Let's Get Grounded/Step Up! educational intervention, organizations must request the program through an online form found at the Let's Get Grounded website. Gordie Center staff schedule the program with two of the trained facilitators who guide the group or organization through the Step Up! program.

Facilitators are required to attend a three-hour facilitator training created by the Gordie Center and modeled after Washington State University's Small Group Norms Challenging Facilitator training. This training includes an educational curriculum that guides facilitators through the background, theory, and research of bystander behavior and then introduces strategies for effective facilitation. Scenarios are then introduced to provide facilitators with options for group discussion. During the 2010-11 academic year, eight undergraduate students, three graduate students and one staff member attended the three hour training. Combined with other Gordie Center and Dean of Students staff, a total of twenty people have facilitated the Let's Get Grounded: Step Up! program sessions.

As part of the Step Up! program sessions, facilitators train students about the five steps of intervening: noticing the event, interpreting it as a problem, assuming personal responsibility, knowing how to help, and implementing that help.[4,26,27] The curriculum includes videos, scenarios, and discussion to review five steps that determine an individual's likelihood to intervene – 1) noticing the event, 2) interpreting it as risky, 3) assuming responsibility for addressing the problem, 4) identifying a course of action, and 5) implementing that course of action.[26,27] Potential scenarios include issues such as academic integrity, alcohol abuse, anger, depression, discrimination, disordered eating, gambling, hazing, relationship abuse, and sexual assault. The program eventually ends with teaching new strategies about how to intervene proactively and ultimately move their peers in a positive and healthy direction.

METHODS

As part of this program, before and immediately after the Step Up! program, participants receive a pre-intervention survey and a post-intervention survey. Both surveys are collected at the end of the presentation. Surveys are considered valid if participants answered at least one question. This study's purpose is to assess and analyze all data that was collected from Step Up! presentations given between February 2011 and October of 2011.

Pre-Intervention and Post-Intervention Survey Instruments

The pre-intervention survey measures how many risky behaviors participants had observed in the past and their perceptions of how likely they were to intervene in one of those situations using a Likert scale of agreement. With this particular Likert scale, participants are able to mark the following five options – "Strongly Agree", "Agree", "Neutral", "Disagree", and "Strongly Disagree" (see Appendix A).

The post-intervention survey measures participants' perceptions of how likely they were to intervene after the educational presentation and if they believed if they were equipped to intervene using the same Likert scales of agreement. An evaluation of the program was also incorporated into the post-intervention survey to gain participants' opinions of the strengths of the program and areas for improvement using open-ended questions and the same Likert scale of agreement (see Appendix A). All surveys instructed participants not to record their names or any other identifying information. Both surveys were collected at the end of the presentation. Due to the anonymity of these two surveys, the International Review Board granted exemption status to the evaluation of the Step Up! program.

Statistical Analysis

All responses that used the Likert scale of agreement were recoded to dichotomous variables for statistical analysis. Responses of "Strongly Agree" and "Agree" were recoded as

positive agreement and responses of "Neutral", "Disagree", and "Strongly Disagree" were recoded as non-positive agreement. Using SPSS, frequencies of responses were calculated and chi-square tests were performed for both surveys.

RESULTS

Participants

Between February 2010 and October 2011, the Get Grounded: Step Up! program was presented to 1,626 student groups, athletic teams, head coaches, faculty members and administrators through forty-nine separate presentations.

Twenty-three of the forty-nine groups of participants completed both pre-intervention and post-intervention surveys. Four groups of participants only completed the pre-intervention surveys and eleven only completed the post-intervention surveys. Eleven groups of participants did not complete any surveys at all. Of the 1,626 participants, 889 completed valid pre-intervention surveys and 1,034 completed valid post-intervention surveys.

Pre-Intervention Survey Results

The five statements included in the pre-intervention survey are presented in Table 1. The percent of participants who endorsed any of the five statements that measured attitudes consistent with active bystander behaviors ranged from 50% to 73%. The statement with the lowest percentage of people (50%) agreeing was the statement that examined perceptions of other students: "Most U.Va. students believe it is their responsibility to intervene when they notice a problem situation." The statement associated with the highest percentage of people agreeing (73%) was "I feel confident I could effectively intervene with my peers in problem situations."

When the total population was broken into groups of student-athletes and non-student-athletes, student-athletes reported a lower percentage of agreement with the same previous two statements compared to the non-student-athlete population. Chi squared tests were then used to determine whether the percentage of agreement responses differed significantly between the student-athletes and non-student-athletes. When compared, the two groups differed significantly in the percentage of agreement responses to the statement, "It is my responsibility to intervene when I notice a problem situation" ($p<0.001$). (Please see Table 1).

Table 1: Participants who chose "strongly agree" or "agree" in response to the pre-intervention survey statements (n=889).

	Percentage of Agreement			
	Student-Athlete (n=245)	Non-Student-Athlete (n=644)	Total	$\chi^{2,1}$ (p value)
If someone intervenes in a problem situation, usually a negative outcome can be avoided.	74	72	73	0.33 (0.56)
It is my responsibility to intervene when I notice a problem situation.	50	77	69	58.13 (<0.001)
Most U.Va. students believe it is their responsibility to intervene when they notice a problem situation.	45	52	50	3.43 (0.06)
I have the skills to effectively intervene with my peers in problem situations.	69	72	72	0.83 (0.36)
I feel confident I could effectively intervene with my peers in problem situations.	68	73	72	1.67 (0.20)

Post-Intervention Survey Results

The post-intervention survey included the same five statements as the pre-intervention survey. Overall, agreement ranged from 69% to 92%. The statement with the lowest percentage of people who agreed (69%) was "It is my responsibility to intervene when I notice a problem situation." The statement with the highest percentage (92%) was "If someone intervenes in a problem situation, usually a negative outcome can be avoided." (Please see Table 2.)

Again, chi-squared tests were used to determine whether the percentage of agreement responses differed significantly between the two groups of student-athletes and non-student-athletes. When compared, the percentage of agreement responses differed significantly between the two groups to the following statements, "Most U.Va. students believe it is their responsibility to intervene when they notice a problem situation" (p<0.006) and "I feel confident I could effectively intervene with my peers in problem situations" (p<0.031).

Table 2: Participants who chose "strongly agree" or "agree" in response to the post-intervention survey statements (n=1,034).

	Percentage of Agreement			
	Student-Athlete (n=344)	Non-Student-Athlete (n=690)	Total	$\chi^{2,1}$ (p value)
If someone intervenes in a problem situation, usually a negative outcome can be avoided.	92	91	92	0.74 (0.39)
It is my responsibility to intervene when I notice a problem situation.	75	66	69	0.09 (0.76)
Most U.Va. students believe it is their responsibility to intervene when they notice a problem situation.	82	79	80	7.56 (0.006)
I have the skills to effectively intervene with my peers in problem situations.	92	90	91	1.64 (0.20)
I feel confident I could effectively intervene with my peers in problem situations.	93	88	90	4.65 (0.031)

Comparison of the Pre-Intervention Survey and the Post-Intervention Survey

Only twenty-three groups out of the forty-nine presentations completed both intervention surveys. From those who completed both surveys, the percentage of participants who agreed with the five statements increased significantly from pre-intervention survey to post-intervention survey. (Please see Table 3).

Table 3: Subset of participants who chose "strongly agree" or "agree" in response to the following statements on both the pre-intervention survey and the post-intervention survey (n=751).

	Percentage of Agreement		Difference (95% Conf. Int.)
	Pre-Intervention	Post-Intervention	
If someone intervenes in a problem situation, usually a negative outcome can be avoided.	72	80	8.0 (3.7-12.4)
It is my responsibility to intervene when I notice a problem situation.	71	91	19.2 (15.3-23.1)
Most U.Va. students believe it is their responsibility to intervene when they notice a problem situation.	51	68	16.6 (11.7-21.5)
I have the skills to effectively intervene with my peers in problem situations.	73	90	17.8 (13.9-21.6)
I feel confident I could effectively intervene with my peers in problem situations.	72	89	16.8 (12.8-20.7)

When this particular subset was analyzed by group, the increase in the percentage of people who agreed with the same statement from pre-intervention survey to post-intervention survey increased for all statements and for both groups. (Please refer to Table 4 and 5 for more information.)

Table 4: Subset of student-athletes who chose "strongly agree" or "agree" in response to the following statements on both the pre-intervention survey and the post-intervention survey (n=154).

	Percentage of Agreement		Difference (95% Conf. Int.)
	Pre-Intervention	Post-Intervention	
If someone intervenes in a problem situation, usually a negative outcome can be avoided.	77	83	5.9 (-3.1-14.8)
It is my responsibility to intervene when I notice a problem situation.	51	88	37.3 (27.3-46.2)
Most U.Va. students believe it is their responsibility to intervene when they notice a problem situation.	53	73	19.5 (8.6-29.8)
I have the skills to effectively intervene with my peers in problem situations.	75	91	15.3 (6.9-23.7)
I feel confident I could effectively intervene with my peers in problem situations.	72	91	18.6 (9.9-27.1)

Table 5: Subset of non-student-athletes who chose "strongly agree" or "agree" in response to the following statements on both the pre-intervention survey and the post-intervention survey (n=589).

	Percentage of Agreement		Difference (95% Conf. Int.)
	Pre-Intervention	Post-Intervention	
If someone intervenes in a problem situation, usually a negative outcome can be avoided.	71	79	8.6 (3.7-13.5)
It is my responsibility to intervene when I notice a problem situation.	77	91	14.5 (10.4-18.6)
Most U.Va. students believe it is their responsibility to intervene when they notice a problem situation.	51	67	15.9 (10.4-21.4)
I have the skills to effectively intervene with my peers in problem situations.	72	90	18.4 (14.0-22.7)
I feel confident I could effectively intervene with my peers in problem situations.	72	88	16.3 (11.8-20.7)

Post-Intervention Survey Evaluation

The post-invention survey also included questions regarding participant perceptions of the program. Ten of these questions were statements that were graded on a Likert scale and three questions were open-ended.

Four of the statements were included only in a small population of participant surveys (n=131). These four statements focused mainly on the facilitator's preparedness, the facilitator's ability to involve the group in discussion, the facilitator's respect for opinions, and the participant's overall satisfaction with the program. Participants reported high percentages of agreement with these statements, ranging from 96% to 100% (Table 6). All groups of participants responded with high percentages of agreement. However, for one statement, "The facilitators were well-prepared," a larger percentage of non-student athletes agreed with the statement compared to student-athletes. When a chi-square test was performed, the agreement with this statement differed significantly between student-athletes and non-student-athletes (p=0.05).

Table 6: Participants who chose "strongly agree" or "agree" in response to the following statements on the post-intervention survey evaluation questions (n=131).

	Percentage of Agreement			$\chi^{2,1}$ (p value)
	Student-Athlete	Non-Student-Athlete	Total	
The facilitators were well prepared.	96	100	99	3.75 (0.05)
The facilitators involved the group in discussion.	98	100	99	1.86 (0.17)
The facilitators respected individual opinions.	100	100	100	N/A
Overall, I was satisfied with the program.	94	98	96	1.38 (0.24)

The other six statements were answered by all of the participants who completed post-intervention surveys. These statements were designed to evaluate participant learning of key concepts of the training: awareness of risky situations, the likelihood to investigate, the likelihood to assume responsibility, the likelihood to consider another point of view, the likelihood of intervening, and whether the participant had learned new strategies and ways to help in emergencies and non-emergencies. Again, participant responses were mostly in agreement with all statements, achieving a percentage of agreement of at least 85%. Also, the percentage of student-athletes who agreed with one statement was significantly larger than non-student-athlete agreement after using a chi square test. That statement was "I am more aware of potentially problem situations" (p<0.01). (Please refer to Table 7.)

Table 7: Participants who chose "strongly agree" or "agree" in response to the following statements on the post-intervention survey evaluation questions (n=1,034).

	Percentage of Agreement			$\chi^{2,1}$ (p value)
	Student-Athlete	Non-Student-Athlete	Total	
I am more aware of potentially problem situations.	90	83	85	6.84 (<0.01)
I am more likely to investigate ambiguous situations.	89	88	88	0.37 (0.54)
I am more willing to assume personal responsibility to help in problem situations.	87	85	86	0.99 (0.32)
I am more likely to consider another person's perspective/point of view.	90	86	87	2.45 (0.12)
I am more likely to intervene in a problem situation.	86	85	86	0.09 (0.76)
I learned new strategies/ways to help in emergencies and non-emergencies.	88	86	86	1.10 (0.32)

The last part of the evaluation process included three open ended questions. These questions asked participants to report the best aspect of the program, how it could be improved, and any other additional comments that participants wanted to make. Compliments to the program included the following:

- Using real life examples and scenarios through the use of videos
- Using statistics to support the program
- Having a positive outlook throughout the program
- Using a five step logic model to help participants remember
- Learning new strategies to intervene in risky situations
- Engaging facilitators
- Increased confidence and empowerment to intervene
- Designed well for this group

Improvements to the program included the following:

- Making the program shorter
- Adding a break in the middle of the program
- Making the program less repetitive
- Requesting that the program be given to first year students
- More discussion within the program
- Using more school/real life examples
- Having the examples include racially diverse examples and scenarios

- Clarifying terms and definitions
- Presenting to smaller groups
- Adding a question and answer session at the end of the program
- Giving more advice for how to intervene in problem situations
- Adding role play for participants
- Including some follow-up event for participants after the program

In general, all other comments were positive in nature. Many participants reported that the program was interesting, informative, and worthwhile.

DISCUSSION

This study is an initial evaluation of U.Va.'s Step Up! program which measures participants' opinions regarding the bystander effect and their likelihood to intervene when they find themselves in a risky situation.

On the pre-intervention survey, the percentage of participants who agreed with the five statements ranged from 50% to 73%. On the post-intervention survey, the percentage of participants who agreed ranged from 69% to 92%. However, caution must be taken when comparing the two ranges from the two surveys. To address the issue of comparison, a subset of participants who completed both surveys were analyzed. In this subset, the percentage of participants who agreed had ranges similar to the entire participant population on the pre-intervention survey (51% to 73%) and on the post-intervention survey (69%-90%) suggesting that the people who completed both surveys are very similar to the overall population. The increase in the percentage of agreement from the pre-intervention survey to the post-intervention survey suggests that this educational intervention is successful in changing participant opinions.

There were also some significant differences in the percentage of participants who agreed with the five statements found on the pre-intervention survey and the post-intervention survey when broken down by groups of student-athletes and non-student-athletes. In particular, in

response to the post-intervention survey, the percentage of student-athletes that agreed with the five statements was consistently higher than the non-athletic groups. This could be explained by the influence of social norms on the bystander effect. A student-athlete's "team" mentality could explain the large percentage of student-athletes that agreed with the five statements. Previous research showed the difference in the likelihood of intervening when comparing service group members to fraternity members [11] and friends/acquaintances to strangers.[12] This same phenomenon could be influencing the percentage of student-athletes who agreed with the statements found on the post-intervention survey. Further detailed research on other student groups with a strong group identity and the percentage that agree on the five statements could offer more insight into this phenomenon.

Limitations

The high percentage of people who agree with the five statements should indicate some success for the program. However, because the post-intervention survey is given right after the presentation is completed, it is not effectively measuring participants' actions – just their opinions and intentions. Although, opinions can influence actions, it gives an incomplete picture of whether participants actually utilized the skills they learned during the Step Up! program to intervene during risky situations. A follow-up survey with these participants is essential to determining whether opinions on the bystander effect and, more importantly, behaviors have truly changed. Two-month, four-month, six-month and year-long time periods are used in other interventions targeting bystander-behavior such as the InterACT Sexual Assault Prevention Program [29] and the University of New Hampshire's sexual violence prevention program.[32] Any follow-up time longer than one year may not be feasible in the transient college student population such as the one this program targets.

In addition, steps should be taken to encourage more consistent data collection by facilitators to provide more complete data to determine the program's effectiveness. While our subset population closely resembled the larger population in terms of the percentage that agreed with the five statements, our findings could be more reliable if pre-intervention survey scores and post-intervention scores could be analyzed for the whole participant population.

Analyzing the Step Up! program was also difficult due to its lack of identifying information. The kind and number of statistical tests available for these data were limited because pre-intervention survey responses could not be linked with post-intervention survey responses for each individual, reducing the number of conclusions that could be extrapolated from the data. The identification of individuals is necessary for a more robust statistical analysis of the program effectiveness.

Finally, it would be in the program's best interest to implement some of the participants' suggested improvements. Such improvements as increasing group discussion, using more real-life examples, and providing more applicable skills can increase the success of the program and increase the overall satisfaction with the program. An additional benefit is that participants would feel more ownership over the program, which could potentially lead to more community "buy-in" as well as increased requests for the educational intervention for other student groups.

CONCLUSION

From the preliminary results of this study, U.Va.'s Step Up! program is indeed changing participants' opinions in the short-term. However, limitations of the study provide barriers to the types of conclusions that can be made from the program's data. These limitations include a small amount of time between the educational training and the post-intervention survey, a lack of consistent data collection, and anonymous participant data. Despite the limitations of this study,

the Step Up! program is successful at educating participants on a wide range of problem situation.

Further research is needed to determine whether the program has long-lasting effects on participants and how strong group identities influence individual opinions on passive bystander behavior. Instituting a follow-up survey and including identifiable information on the surveys could aid in answering these questions. It is also important to implement some of the participants' suggested improvements to create a sense of student ownership of the program. In closing, the results of this study should be taken into account as program planners consider improving the Step Up! program at U.Va. and applying the program to other participant populations and other topics.

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APPENDIX A

Pre-Intervention Survey

Date_____

Please do NOT write your name on this paper. You will not be asked to share your own responses.

1. I have witnessed a situation, at least once, where someone's health and safety were in danger.
   Check all that apply
   _____ Drinking too much
   _____ Hazing
   _____ Being taken advantage of sexually
   _____ Discrimination (racial, sexual orientation, etc.)
   _____ Physical endangerment
   _____ None of the above

Check the box which best corresponds to your opinion

	Strongly Disagree	Disagree	Neutral	Agree	**Strongly Agree**
2. If someone intervenes in a problem situation, usually a negative outcome can be avoided.					
3. It is my responsibility to intervene when I notice a problem situation.					
4. Most U.Va. students (51% or more) believe it is their responsibility to intervene when they notice a problem situation.					
5. I have the skills to effectively intervene with my peers in problem situations.					
6. I feel confident I could effectively intervene with my peers in problem situations.					

Post-Intervention Survey

1. Please rate your level of agreement with the following statements:

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
a. It is my responsibility to intervene when I notice a problem situation.					
b. Most U.Va. students (51% or more) believe it is their responsibility to intervene when they notice a problem situation.					
c. If someone intervenes in a problem situation, usually a negative outcome can be avoided.					
d. I have the skills to effectively intervene with my peers in problem situations.					
e. I feel confident I could effectively intervene with my peers in problem situations.					

2. Please evaluate the Step Up! training

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
a. The facilitators were well prepared					
b. The facilitators involved the group in discussion.					
c. The facilitators respected individual opinions.					
d. Overall, I was satisfied with this program.					
As a result of the training….	**Strongly Disagree**	Disagree	Neutral	Agree	**Strongly Agree**
e. I am more aware of potentially problem situations					
f. I am more likely to investigate ambiguous situations.					
g. I am more willing to assume personal responsibility to help in problem situations					
h. I am more likely to consider another person's perspective/point of view					
i. I am more likely to intervene in a problem situation					
j. I learned new strategies/ways to help in emergencies and non-emergencies					

3. The BEST thing about the Step Up! training was…

4. How could the Step Up! training be improved?

5. Please list additional comments or questions on the back