

SEXUAL ASSAULT PROGRAM
AND PROACTIVE BYSTANDER BEHAVIORS: WHAT MATTERS?

by

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ABSTRACT

BRIANNE NICOLE MOORE. Sexual Assault Program
and Proactive Bystander Behaviors: What Matters? (Under the direction of DR.
JENNIFER HARTMAN)

Sexual assault on college campuses is a public health issue. More than fifteen percent of women in the United States will be sexually assaulted while in college (Carey, Durney, Shepardson, & Carey, 2015). That is more than 1 in 4 college women. In response to this public health concern, college campuses are delivering various prevention and bystander intervention programs in hopes to educate and ultimately prevent sexual assault (Rothman & Silverman, 2007). Colleges which are often the first opportunity for students to experience living away from the guidance of their parents and adjust to managing their own lives can also be one of the riskiest. This project will explore what factors may impact the learning process of college students. This research will be able to help understand what aspects matter when it comes proactive bystander intervention among college students. Policy implications will be discussed.

TABLE OF CONTENTS

LIST OF TABLES	vi
INTRODUCTION	1
SEXUAL ASSAULT PROGRAMMING OVERVIEW	3
BEST PRACTICES FOR PREVENTION PROGRAMMING	4
BEST PRACTICES APPLICATION I	4
BEST PRACTICES APPLICATION II	7
PROACTIVE BYSTANDER INTERVENTION	8
HYPOTHESIS	14
METHODS	15
VARIABLES	17
DEPENDENT VARIABLES	18
CONTROL VARIABLES	20
ANALYTICAL DESIGN	22
CHI-SQUARE	22
INDEPENDENT SAMPLE T-TEST ANALYSIS	22
LOGISTIC REGRESSION	23
RESULTS & DISCUSSIONS	24
HYPOTHESIS 1 RESULTS & DISCUSSIONS	24
HYPOTHESIS 2 RESULTS & DISCUSSIONS	27
IMPLICATIONS	32
LIMITATIONS	37
CONCLUSION	38

REFERENCES	40
APPENDIX: CAMPUS CLIMATE SURVEY	44

LIST OF TABLES

Table 1. Sample Demographics	15
Table 2. Student Residency by Classification	17
Table 3. Proactive Bystander Interventions*	19
Table 4. Informal Interaction Opportunities*	20
Table 5. Proactive Bystander Intervention by College Living Situation (n=2,261)	24
Table 6. Comparing College Living Situations by Proactive Bystander Intervention (n=2,261)	25
Table 7. Logistic Regression Coefficients Predicting Students' willingness to Participate in Proactive Bystander Interventions (n= 2,106)	26
Table 8. Informal Interaction Opportunities by College Living Situation (n=2,261)	28
Table 9. Comparing College Living Situations by Informal Interaction Opportunities (n=2,261)	29
Table 10. Logistic Regression Coefficients Predicting Students' Opportunities to Engage in Informal Interactions-Sexual Assault Education (n= 2,106)	30

Introduction

Sexual assaults on college campuses is a public health issue that has become the forethought of college campuses in recent years (Exner & Cummings, 2011). More than fifteen percent of women will be sexually assaulted while in college (Carey, Durney, Shepardson, & Carey, 2015). Due to these alarming rates of sexual assaults among females, it has quickly become a public health concern. In response to this public health concern, college campuses are building programs to educate and prevent sexual assault by offering bystander intervention and prevention programming to the student population on campuses throughout the United States (Rothman & Silverman, 2007). Even though there have been various studies done about sexual assault incidence and prevalence, this project will explore sexual assault prevention and bystander intervention from a different view point. While the research that has been done on sexual assault prevention programs has spanned many topics including bystander intervention, prevention programs, as well as the perception and attitudes of sexual assault (Bradley, Yeater, & O'Donohue, 2009; Exner & Cummings, 2011; Foubert, Langhinrichsen-Rohling, Brasfield, & Hill, 2010; Koelsch, Brown, & and Boisen, 2012; Kress, et al., 2006; Willoughby & Carroll, 2009; Worthen & Wallace, 2017) an area that has not been researched thoroughly has been how people best learn about sexual assault prevention and bystander intervention. Using survey data, this project explored opportunities that students have to be proactive bystanders using differential learning mechanisms, including living situation like on campus living.

Research has shown that those who choose to live on campus during college are more likely to have a higher GPA, be involved in extracurricular activities, take advantage of various university resources, and have a higher retention rates (Shuddle, 2011; Turley

& Wodtke, 2010). Another research study has shown that those who live on campus during college are more likely to be open to diversity compared to those who live off campus (Pike, 2002). These are just some of the benefits of living on campus during college that have been researched.

Sexual Assault Programming Overview

An area of sexual assault prevention that has not been studied thoroughly is how people learn about the prevention of sexual assault. Historically, sexual assault prevention has been taught in multiple ways. For example, Potter (2012), studied how a sexual assault prevention and bystander program was conveyed and taught solely using a multi-media marketing campaign. The results implied that exposure to the media campaign lead to students being more aware of their roles in reducing sexual violence and were willing to step in when needed (Potter, 2012). Although Potter (2012), focused on a multi-media campaign, Cares et al. (2015), expanded upon this and included a face-to-face interaction as well, to determine if a sexual assault prevention and bystander intervention program was more effective. Cares et al.'s (2015) results suggested that the students who participated in both the active face-to-face program as well as the multi-media market campaign had shown a greater change in attitude about sexual assault compared to those that only participated in the multi-media campaign (Cares, et al., 2015). Further, Jozkowski (2015), looked at students understanding of sexual assault prevention and awareness after taking part in a semester long sexual assault prevention program. The results indicated that those who participated within the semester long course could identify behaviors that could lead to sexual assault at higher rate compared to students who participated in a one-time sexual assault prevention program (Jozkowski, 2015). In sum, while these studies independently used various styles of imparting a prevention program, what is the best way to convey and teach prevention programs like a sexual assault prevention program remains unclear.

Best Practices for Prevention Programming

Nation et al. (2003), conducted a study that considered the best way to teach and convey a prevention program. The decades old study looked at both PsycLIT and criminal justice abstracts and articles to determine the effectiveness of prevention programs. This research found that there were nine common principles that were associated with effective prevention programming. The nine common principles are: comprehensive, varied teaching methods, sufficient dosage, theory driven, positive relationships, appropriately timed, sociocultural relevant, out-come evaluation, and well-trained staff. Each principle plays a different role in what makes a prevention program effective. The first five principles are associated with prevention program characteristics, while the next two principles linked to matching the prevention program to a targeted audience, and then the final two principles are connected to the implementation and evaluation of the prevention program (Nation, et al., 2003).

Best Practices Application I

As previously mentioned, sexual assault prevention programs can take on different shapes, forms, and intentions. Potter (2012), Cares et al. (2015), and Jozkowski (2015) all studied various sexual assault prevention programs for effectiveness. Even though Nation's et al. (2003) principles are not outright expressed in each study, selected principles are still used within various sexual assault research today.

Even though it was an informal interaction program Potter (2012), shows some of the principles that Nations et al. (2003) identified within her study. Specifically, Potter (2012), studied the effects of a multi-media marketing campaign on a college campus to increasing awareness of sexual assault and bystander intervention. The campaign was a 6-

week campaign, where eight different images were distributed across the campus. The images that were selected were on posters, buses, in the dining halls, and some of the university computers. The results showed that both males and females exposed to this campaign were willing to get involved in the reduction of sexual violence and stalking (Potter, 2012). Within this program, a few of the principles that Nation's et al. (2003) have identified are prevalent. For example, the first principle that is prevalent is sufficient dosage. The exposure to the multi-media campaign lasted 6 weeks and was seen in various places, not just one. This leads to the next principle that was expressed during this study which was varied teaching methods. That is, there was more than one mode of getting the multiple images to the target audience. Lastly, there was a pre- and post- evaluation, which covers the outcome evaluation principle. The outcome of this study was favorable; which suggested that the prevention program was effective. In particular, the program prompted both males and females to be willing to get involved to reduce stalking and sexual violence.

Cares et al. (2014), studied the effects of a sexual assault prevention program that used both face-to-face educational presentations as well as a multi-media campaign to disseminate sexual assault prevention information to first-year students at two different campuses. The face-to-face presentations last a total of 4 ½ hours but was spread across two different sessions. While the multi-media campaign lasted for six weeks, four months after the implementation of the program and sessions. Cares et al. (2015) determined that the programs at the two campuses were similar in structure to each other but also varied slightly to make it work optimally for each site. For example, the media exposure aspect of the sexual assault prevention program changed between campuses. The change in the pictures were so that the students of that campus could connect with the photos that were

being exposed too. The results of this study showed that those who took part in both the media campaign as well as the face-to-face program had shown positive change in attitudes about sexual assault for at least 12 months.

Further, this study reported that those who were only exposed to the media campaign also had attitude changes (Cares, et al., 2015). Many of the principles explained by Nation et al. (2003), were used in this prevention program. The principles that were displayed were varied teaching methods, sufficient dosage, appropriately timed, and outcome evaluations. The principles that make for an effective prevention program have been relevant in both Potter (2012) and Cares et al. (2015), both of which had a media marketing campaign; but can the principles identified by Nation et al. (2003) be relevant in prevention program that is a semester long but does not include a media marketing campaign.

Jazkowski (2015) looked at the effectiveness of an alternative sexual assault prevention program compared to a traditional sexual assault prevention program. The traditional program was a one-time 60-minute course, while the alternative program was a once a week class that lasted for 60 minutes each week. Jazkowski found that students who participated in a semester-long sexual assault prevention program course could acknowledge and understand the underlying causes of sexual assault as well as being able to identify behaviors that could lead to a sexual assault at a higher rate compared to students who participated in a one hour sexual assault prevention workshop. Even though the study was simple, the principles of an effective prevention program still exist in this prevention program.

Potter (2012), Cares et al. (2015), and Jazkowski (2015) all evaluated the effectiveness of prevention programs. In each of the prevention programs evaluated, the

principles that make for an effective prevention program are prevalent. One aspect that was prevalent in the prevention programs studies was varied teaching methods. McMahon and Banyard (2012) created a conceptual framework of bystander intervention and when to put to test the skills learned in prevention programs.

Best Practices Application II

McMahon and Banyard (2012), took Nation's et. al (2003) abstract principles and created a conceptual framework of bystander intervention. The conceptual framework can be divided into reactive bystander intervention and proactive opportunities. In particular, McMahon and Banyard (2012) defined reactive bystander opportunities as "a situation where an individual can respond and intervene to a potential assault situation before, during or after an assault (p.7)." Proactive opportunities, on the other hand, are described as "positive actions that set a foundation to take a stand against sexual violence, without the presence of violence or risk (pg.7:13)." With two very distinct ways of being a bystander, both have their place in sexual violence programming.

Reactive bystander intervention is a person willing to intervene at any point during a situation. For their conceptual framework, McMahon and Banyard (2012) generated reactive bystander intervention into four subcategories. The four subcategories are primary-low risk, primary-high risk, secondary, and tertiary. Primary is before an assault takes place, secondary is while the assault is taking place and tertiary is after an assault has occurred. Being a proactive bystander according to McMahon and Banyard is willing to learn about violence, especially sexual violence before it happens, so it can be implemented in the future, if need be.

Proactive Bystander Intervention

Being a proactive bystander is willing to learn about sexual violence so this knowledge can be implemented in the future. McMahon and Banyard (2012) explain that the activity, depends on who it affects. For example, an activity that can affect the self by strengthening an individual's knowledge of sexual assault and misconduct can include taking part in a class or research project that is about sexual violence. Arranging a class presentation or a residential hall program about sexual misconduct and assault can change a community's knowledge on sexual violence. Students who challenge peers to reject language and rituals that are sexist are trying to make a change at an organizational level. Even taking part in a rally like *Take Back the Night* impacts on a macro-logical level. Even though these different activities can be affective on various levels, there are also other activities that one can participate in to learn more about sexual violence to be a proactive bystander.

Other activities that one can partake in to improve their knowledge of sexual assault may include serving on a board for sexual violence providers or visiting a website that has information about prevention information. Being on a part of a board that stands against sexual violence is not only strengthening the self but also the community because of making a difference to support survivors and make the statement that sexual violence will not be tolerated. Visiting a website strengthens one knowledge so it can be passed along to others at a time when it is needed. Being a proactive bystander is important in making the statement that sexual violence will not be tolerated. On the other hand, there is being a reactive bystander. Being a reactive bystander, is intervene at various points during a potential assault.

One aspect that McMahon and Banyard (2012) mentioned was that being a reactive and proactive bystander are often taught during sexual assault prevention programs. Even with both types of intervention being taught to students, McMahon and Banyard (2012) explain that opportunities for bystander intervention may have to be specified for a specific community to be effective. It may be as simple as needing to specify opportunities of bystander intervention for a community, but what impact does a community potentially have. People, who are different than each other, places, and various symbols make up a community. Just as those aspects matters to a community so does living in a certain area. Living on a college campus is a community that has wonderful opportunities, but are also face with opportunities of needing to intervene (McMahon & Banyard, 2012).

In addition to applying the concepts of McMahon & Banyard (2012) this research will also look at various aspects of college students to try and understand what matters when it comes to proactive bystander intervention. This is the main aspect that will be looked at when it comes to proactive bystander intervention. College living situation is used to see if that matters when it comes to being a proactive bystander intervention. Other aspects that are looked at to see if they matter when it comes to proactive bystander intervention are knowledge and training within sexual assault programs, sexual violence within the past year and or lifetime, race/ethnicity, classification in school, transfer status, age, gender identity, and sexual orientation.

Knowledge of Sexual Assault Programs & Training within Sexual Assault Programs

Multiple research studies, such as Worthen and Wallace (2017), Kernsmith and Hernandez-Jozefowicz (2011), and Foubert and Perry (2007), have shown that sexual assault programs have had a significant effect on reduction in rape myth acceptance,

improved attitudes towards females as well as empathy for sexual assault survivors, an increase in willingness to report a sexual assault, and a reduction in willingness to associate with peers who are aggressive sexually. Due to the vast research on sexual assault programs, this project will explore if students had prior knowledge and/or training within sexual assault programming.

Sexual Violence Experienced within Past Year & Lifetime

Additional research from Rothman and Silverman (2007) and Gidycz et al. (2001) has suggested that sexual assault prevention programs may not work for those who had been a victim of sexual assault before. Specifically, Rothman and Silverman (2007) reported that 21% of participants who had prior experience with sexual assault were assaulted within their first year of college after exposure to a sexual assault intervention programming. Only 11% of participants had been sexually assaulted after receiving the sexual assault intervention program and no prior experience with sexual violence. Beyond training and previous assault history, another factor that may influence whether students take part in proactive bystander intervention is where they live on campus.

On Campus Housing

Prevention programs which promote strong, healthy relationships as well as supporting positive outcomes are more likely to be successful according to Nation et al. (2003). This project will explore whether college living situation impacts the outcome of willingness to be a proactive bystander. When it comes to college living situation, a student can either live on campus or off campus.

Living in on campus housing, while in college has its benefits. The benefits of living on campus vary from person to person. Living on campus can benefit a student's

social life as well as academic life. One of the benefits of living on campus, is students learn to be responsible for themselves. Students do not have their parents around to tell them what to do, and the universities and college have decided not to step into that role of tell students what to do, since it is not their role (Willoughby & Carroll, 2009). Some research has shown that students who live on campus are more likely to be involved in extracurricular activities, compared to those who live off campus. Furthermore, being involved in extracurricular activities can often lead to students building more friendships and relationships within college, which is another benefit of living on campus (Turley & Wodtke, 2010). Students who live on campus may be more likely to interact with faculty as well as use university resources, compared to those who live off campus. This is an academic benefit to those who live on campus (Turley & Wodtke, 2010).

Housing Issues

Another factor that can influence the study is whether the residence hall is co-ed or single sex. Willoughby and Carroll (2009) looked at the impact that co-ed living has on college students and their behaviors. They specifically, researched the impact co-ed living has among college students and studied risk behavior patterns based on the type of college housing and college housing environment a student was residing in. For this study, Willoughby and Carroll studied a sampling of over 500 students that were living in on-campus college housing. The sampling utilized information from five colleges and universities across the United States. The participants were asked to complete an online survey that measured different risk-taking behaviors utilizing a location specific code but otherwise was anonymous. Most of the questions utilized the Likert scale to be able to provide uniform data analysis. Some of the risk-taking behaviors that Willoughby and

Carroll looked at were binge drinking and sexual activity. The results of the study indicated that students who lived in co-ed housing were more likely to engage in risk-taking behaviors unlike their counterparts who lived in gender-specific housing. From this study, it was concluded that on-campus housing and on-campus housing environments can impact college students' risky behaviors.

Race/Ethnicity

Various research has shown that race/ethnicity may contribute to varied difference within sexual assault education. One studied found that those who identified as Black, Asian, Native American, or other races were more supportive and accepting of sexual assault education compared to those who identified as white (Worthen & Wallace, 2017).

Classification in School & Transfer Status

Research has shown that both year in school as well as age may have an effect on how students respond to sexual assault education. Specifically, research has reported that students who are younger and early in their college career are going to respond to a program differently than students who are older and further along in their college career (Worthen & Wallace, 2017). There is not much research about transfer status and sexual assault prevention programming.

Age

Similar to classification in school, or year in school, some have suggested that students that are younger are more likely to think that sexual assault education is important for the self and the student population compared to older students. This research suggests that those who are younger in age support sexual assault education, therefore should be

willing to participate in the sexual assault education as well (Jozkowski, Henry, & Sturm, 2015).

Gender Identity

Research has shown that there is a difference between genders and their knowledge and support of sexual assault education. For example, females may be more likely to support sexual assault education compared to their male counterparts (Worthen & Wallace, 2017).

Sexual Orientation

Sexual orientation is another variable that will be used within this project. Research has shown that those who identify as LGBT believe that the sexual assault programming and activities available today are heteronormative and not LGBT sensitive. While the LGBT community tends to see the need for sexual assault prevention programming and activities, they are often critical of them due to the heteronormativity (Worthen & Wallace, 2017).

Hypothesis

1. Students that live on campus are more likely to participate in proactive bystander opportunities compared to students that live off campus.
2. Students who live on campus are more likely to have opportunities of being exposed to informal interaction opportunities pertaining to sexual assault compared to students that live off campus.

Methods

This study relies on data from a survey in a Southern urban university. The university has just under 18,000 undergraduate students (ages 18-24) who were invited to participate. A total of 2,699 students completed the survey from April 4, 2016 to April 17, 2016 with a response rate at 15.24%. The demographics the campus compared to the sample is shown in table 1. There are some significant differences between the population and sample.

Table 1. Sample Demographics

Demographic Variables	Population	Sample	z Score	Significant
Total	17,709	2,699 (15.2%)		
Gender				
Female	8,546 (48.3%)	1,650 (61.3%)	13	.000***
Male	9,163 (51.7%)	1,013 (37.7%)		
Other	N/A	27 (1.0%)		
Race/Ethnicity				
White: Non-Hispanic	10,513 (59.4%)	1,730 (64.4%)	5	.000***
Black: Non-Hispanic	2,833 (16.0%)	380 (14.4%)		
Hispanic/Latino	1,621 (9.2%)	240 (8.9%)		
Other	2,742 (15.4%)	338 (12.6%)		
College Living Situation				
On Campus	5,272 (29.8%)	869 (38.4%)	9	.000***
Off Campus	12,437 (70.2%)	1,392 (61.6%)		
Classification in School				
Freshman	3,445 (19.5%)	566 (21.0%)	2	p>.05
Sophomore	4,352 (24.5%)	630 (23.4%)		
Junior	4,870 (27.5%)	782 (29.0%)		
Senior	4,940 (27.8%)	690 (25.6%)		
Other	129 (0.7%)	25 (0.9%)		

*p<.05; ** p<.01; ***p<.001

The table of demographic information shows that the student population of the college is almost 50-50 male to female ratio, but the sample used in this study show that approximately 61% of the sample was female. The sample being used is more female than male which is the same as what is represented on the campus. The other variables represented in this table are similar from population to sample as far as percentages within each.

After conducting significance test on the demographic information, there are statistically significant differences between the population of the university and the sample used in regard to gender, race/ethnicity, and college living situation. This means that the sample used is significantly different from the population. Specifically, Classification in School was the only category, after analysis, that showed there was not a significant difference between the population and the sample (Schumacker, 2015).

The survey used for this study was a campus climate survey. It originated out of the University of Kentucky. The study contained 138 number of questions about x, y, and z, including demographic questions. At the time of the survey, the university that was sampled, was one of three universities to pilot the survey.

Variables

The independent variable in this project is college housing. College housing is divided into on campus college housing and off campus housing. In the campus climate survey, the question surrounding living situation for that year had six different options including: single-sex residence hall or dormitory, co-ed residence hall or dormitory, other university housing, fraternity/sorority house, off-campus house or apartment, and other. This variable was a six-factor variable, but for analysis reasons and based on what the university offered for college housing, it was best to collapse the six-factor variable into a two different collapsed variables, on-campus housing and off-campus housing. The first collapsed variable is on campus housing, which encapsulated the options of single-sex residence hall or dormitory, co-ed residence hall or dormitory, other university housing, and fraternity/sorority housing from the original survey question. When analyzing for on-campus living, the collapse variable was coded as a dummy variable. 0 was considered anything that was not on-campus living, while 1 was considered on-campus living.

The second collapsed variable is off campus housing. The variable of off campus housing encapsulates off campus housing as well as other housing. These two variables made up the collapsed variable of off campus housing because the description of these options. This variable was a dummy variable when analyzing for it. The breakdown of this variable is shown in table 2.

Table 2. Student Residency by Classification

Classification	Off-Campus	On-Campus
Total	1392	869
Freshman	105 (7.5%)	376 (42.2%)
Sophomore	281 (20.2%)	238 (27.4%)

Junior	489 (35.1%)	160 (18.4%)
Senior	500 (36%)	86 (9.9%)
Other	15 (1.1%)	7 (0.8%)

The significance test on the difference of Student Residency by Classification, it indicates there was a significant difference between the on-campus living and off-campus living. Specifically, this means there are differences between those on and off campus (Schumacker, 2015).

Dependent Variables

The dependent variable for this study is proactive bystander intervention. Within the survey there was a question that asked if the participants had participated in different kinds of activities on campus. The different activities listed within this question were either about proactive bystander opportunities, educational opportunities, or dissemination of information about sexual assault. There were 13 different activities listed along with the option of other activities that were not listed but specific to the university; this was a check all that apply question. The 13 activities listed included activities as informal as sexual misconduct conversation among friends and family to as formal as attending a university event and or program to learn how to become a bystander to stop sexual misconduct. Due to the wide nature of the various activities listed, for this thesis, this study is going to focus on the proactive bystander intervention opportunities as well as the informal interactional opportunities that were listed. The two variables that was utilized in this variable are proactive bystander opportunities and informal interaction opportunities. The creation of these two variables were based off of research done by McMahon and Baynard (2012).

The activities included in the proactive bystander intervention variable are activities that a person can take part-in proactively to help prevent sexual assaults (McMahon &

Banyard, 2012). The activities from the survey questions that are being included in the informal exposure variable are: visited a UNCC website with information on sexual misconduct or sexual assault, read report about sexual violence at UNCC, taken a class to learn more about sexual misconduct/assaults, attended a rally or other campus event about sexual misconduct or sexual assault, and attended an event or program about what you can do as a bystander to stop sexual misconduct. All of these variables are listed in table 3. These are the activities, by McMahon and Banyard's definition, of proactive bystander intervention. The new collapsed variable of proactive bystander interventions, was a check all that apply, but for analysis reasons, it was coded into a dummy variable. Since the project is only measuring willingness to participate in proactive bystander intervention and informal interaction opportunities and not the number of opportunities, it was coded as a 0 or a 1. 0 meant that the participant did not participate in any of the activities. 1 meant that the participant participated in at least 1 or more of the proactive bystander intervention opportunities.

Table 3. Proactive Bystander Interventions*

Visited a UNCC website with information on sexual misconduct or sexual assault	n=156
Read report about sexual violence at UNCC (Cleary Act, etc.)	n=353
Taken a class to learn more about sexual misconduct/assaults	n=100
Volunteered or interned at an organization that addressed sexual misconduct/assault at UNCC	n= 64
Attended a rally or other campus event about sexual misconduct or sexual assault	n=128
Attended an Event or Program about what you can do as a bystander to stop sexual misconduct	n=277

*Items are not mutually exclusive

The second variable used in this study is informal interaction opportunities about sexual assault. McMahon (2015), explains that sexual assault research needs to be examined beyond the formal educational programs and examined in settings that are

informal. The informal settings and interactions that McMahon described as needing to be examined are interactions that take place within residence halls, classes, as well as other informal social situations. Due to this variable being considered informal interactions, the participants could choose whether or not to participate unlike the proactive bystander interventions variable. This variable will examine the activities that are opportunities of informal interactions in regard to sexual assault education. The activities from the survey question that are included in this variable are: seen posters about sexual misconduct, discussed sexual misconduct/rape in class, discussed sexual misconduct/rape with friends, and discussed sexual misconduct with family. Due to this variable being considered informal interactions, the participants could choose whether or not to participate unlike the proactive bystander intervention (McMahon, 2015). Similar to the proactive bystander intervention dependent variable, this variable was coded as a dummy variable. When coded 0, it meant that the participant did not check any of the options. When coded 1, it meant that the participant checked 1 or more of the options. For analysis of the variable to answer the hypothesis, it was best coded as a dummy variable. The breakdown or collapsing of this variable is explained in table 4.

Table 4. Informal Interaction Opportunities*

Seen posters about sexual misconduct	n=1069
Discussed sexual misconduct/rape in class	n=751
Discussed sexual misconduct/rape with friends	n=772
Discussed sexual misconduct/rape with family	n=402

*Items are not mutually exclusive

Control Variables

As previously stated, this study relies on multiple control variables: gender, age, year in school, transfer status, race/ethnicity, sexual orientation, knowledge of various sexual assault trainings, training within various sexual assault trainings, as well as sexual

violence victimization within the last year and ever. As previously mentioned, research () shows that these variables can have an effect on willing to be a bystander, therefore, they are control variables.

Analytical Design

The data in this project was analyzed using SPSS. Chi square, t-test analysis, and logistic regression will be the used in the analysis of the data. I have chosen these tests because they will be able to help answer my research questions.

Chi square will be employed to measure statistical significance of the bivariate relationship. For continuous variables, t-test between means will be utilized. These analyses will inform decision at which variables to include in subsequent multivariate analysis. Several multivariate statistical techniques will be employed with the data (Schumacker, 2015).

Chi Square

Chi square analyzes for a best fit model of a single variables. Chi square uses nominal variables to see if the data of a sample is consistent with what a true distribution of that variable should be. The results of a chi square analysis will show whether to data is normally distributed or not distributed normally (Schumacker, 2015) . Chi square will be able to test to see if there is a significant difference between the two groups but, it cannot differentiate which group is significantly different. For this thesis, chi-square will be used to compare college living situation to sexual assault prevention activities. More specifically, it will test college living situation against proactive bystander intervention opportunities and informal interaction opportunities. The college living situation variables being used have been explained in table 2.

Independent Sample T-Test Analysis

The independence sample t-test analysis looks two sample populations to determine if there is a significant difference between the two populations at a singular moment in

time. If the difference between the two populations is significant, then that means that there is a legitimate difference between the two groups (Schumacker, 2015). For this study, an independent sample t-test analysis was conducted to compare sexual assault prevention activities based on college living.

The first t-test analysis will be looking at comparing college living, which will be divided in to two variables (on-campus and off-campus) and participation within sexual assault prevention activities which is also divided into two variables (informal activities and formal activities). Those who live on-campus and take part in informal sexual assault prevention activities will be compared to those who live off-campus and take part in informal sexual assault prevention activities, is the first paired t-test analysis. Those who live on-campus and take part in formal sexual assault prevention activities will be compared to those who live off-campus and take part in formal sexual assault prevention programs, this is the second pair t-test analysis.

Logistic Regression

Logistic regression will be used to explain dependent/outcome variables that are dichotomous. For this study logistic regression was used to find variables that can determine willingness or unwillingness to participate within sexual assault prevention activities. The dependent variables that will be used for the logistic regressions will be informal sexual assault prevention activities and formal sexual assault prevention activities. Logistic regressions will be able to assess the influence of the independent variable (housing) as well as other variables, like control variables, on a student's willingness to participate within sexual assault prevention activities. (Schumacker, 2015).

Results & Discussion

The results of the data analysis show support for the some of the research questions posed, but not all. Each analytical test used, helped support different aspects of the research questions. The results of the analytical test lead to a discussion of the results as well as the implications based off of the results.

Hypothesis 1 Results and Discussion

As mentioned, three different analytical tests were used to see if the first hypothesis was significant. The first test that was used was chi-square. The results of the chi-square analysis showed that there was not a significance between those who live on campus and those who live off campus and their willing to be a proactive bystander.

Table 5. Proactive Bystander Intervention by College Living Situation (n=2,261)¹

College Living Situation	Number of Proactive Bystander Opportunities		Total
	0	1	
On Campus	612 70.4%	257 29.6%	869 100%
Off Campus	978 70.3%	414 29.7%	1392 100%

$\chi^2 = 0.07$

sig. = 0.933

*p<.05; ** p<.01; ***p<.001

Since there is not a significant difference between college housing type and willingness to be a proactive bystander, based off of the chi-square analysis, this shows that being a proactive bystander is not determined by college housing type.

To continue analyzing the first hypothesis, and more specifically, college housings impact on proactive bystander intervention, an independent sample t-test analysis was

¹ When ran as a sequential chi-square, there was a statistical significant between the two living situation. When ran as sum total chi-square, there is not a statistical significance between the two living situations.

conducted. The independent sample t-test analysis compared participation rates of proactive bystander intervention among those who lived on-campus those who lived off-campus. The results showed that there was not significant difference in the scores for those who live on-campus ($M = 0.4672$, $SD = 0.91096$) or for those who lived off-campus ($M = 0.4806$, $SD = 0.92005$); $t(2261) = -.338$, $p = .735$. These results suggest that there is not a significant difference between those who live on-campus and those who live off-campus and being a proactive bystander interventionist. The results of this independent sample t-test analysis are displayed in table 6.

Table 6. Comparing College Living Situations by Proactive Bystander Intervention (n=2,261)

Variables	Mean(SD)	t Value	p Value
On-Campus Bystanders	0.4672(0.91096)	-.338	.735
Off-Campus Bystanders	0.4806 (0.92005)		

* $p < .05$; ** $p < .01$; *** $p < .001$

Even though the results of the independent sample t-test do not show a significant difference between those who live on-campus and those who live off-campus, the results do show that there is a difference between the two groups. Those who live off-campus are more likely to be willing to participate in proactive bystander intervention compared to those who live on-campus. Why is there this difference, even though it is not significant?

To try and understand if there is more to this difference between on-campus living and off-campus living in regard to proactive bystander intervention, a logistic regression was conducted. The results of the logistic regression are represented in the table below.

Table 7. Logistic Regression Coefficients Predicting Students' willingness to Participate in Proactive Bystander Interventions (n= 2,106)²

Variables	B	S.E.	Wald	Exp(b)
Gender: Other			1.013	
Gender: Female	-.231	.531	.189	.794
Gender: Male	-.323	.533	.367	.724
Sexual Orientation	.049	.169	.085	1.050
Age	-.088	.056	2.469	.916
Year in School: Freshmen			15.513**	
Year in School: Sophomore	.395	.165	5.756*	1.484
Year in School: Junior	.613	.195	9.840**	1.846
Year in School: Senior	.924	.235	15.418***	2.519
Year in School: Other	.609	.563	1.167	1.838
Transfer	-.461	.118	15.187***	.631
Race/Ethnicity: White Non-Hispanic			4.430	
Race/Ethnicity: African American Non-Hispanic	.265	.145	3.326	1.306
Race/Ethnicity: Hispanic	-.143	.183	.613	.866
Race/Ethnicity: Other	.008	.158	.002	1.008
College Living	.026	.117	.051	1.027
Heard of Sexual Assault Prevention Programs	.333	.361	.848	1.395
Trained in at least 1 Sexual Assault Prevention Program	.963	.157	37.691***	2.620
Sexual Violence Victimization-Past Year	.173	.295	.343	1.189

² An area of concern that was raised during the analysis of the data was multicollinearity among the variables. To see if multicollinearity existed, a bivariate correlation was conducted. The results of the bivariate correlation showed that there was a single multicollinearity within the logistic regression among Age and Classification in School. The bivariate correlation between Age and Classification in School was higher than a .7, which is indication of multicollinearity. After running the logistic regression without age, the results of the logistic regression were similar to the original logistic regression where age was included.

Sexual Violence Victimization-Ever	.317	.221	2.065	1.373
Constant	.315	1.250	.064	1.371
<hr/>				
-2 log likelihood	2466.930			
Chi-Square	97.844			
P	.000			
Model Prediction Rate	71.7%			

*p<.05; ** p<.01; ***p<.001

The significant predictors of willingness to be a proactive bystander are year in school freshmen through senior, not being a transfer student, and being trained in at least 1 sexual assault prevention program. This logistic regression model has a model prediction rate of 71.1%.

Overall, the results of the chi-square, independent sample t-test, and logistic regression, show little support for the first hypothesis stated. Chi-square and independent sample t-test showed that there was not a significant difference between the two groups. The logistic regression analysis showed who or what factors were more likely or less likely to affect willingness to be a proactive bystander. Implications to follow.

Hypothesis 2 Results & Discussion

Even though there was little support for the first hypothesis, there was more support for the second hypothesis. The analytical test that were used for the first hypothesis were used for the second hypothesis. To see if there was any significance between college living situation and informal interaction opportunities, chi-square analysis was used. The results of the second chi square analysis showed that there was a statistical significance between on-campus living and off-campus living when it comes to informal interactions opportunities about sexual assault prevention. The results show that those who live on-

campus and those who live off-campus are significantly different when it comes to opportunities for informal interactions about sexual assault prevention.

Table 8. Informal Interaction Opportunities by College Living Situation (n=2,261)³

College Living Situation	Number of Informal Interaction Opportunities		Total
	0	1	
On Campus	258 29.7%	611 70.3%%	869 100%
Off Campus	539 38.7%	853 61.3%	1392 100%

$\chi^2 = 19.122$

sig. = 0.000***

*p<.05; ** p<.01; ***p<.001

The chi-square analysis test, shows that there is a significant difference between college living situations and informal interaction opportunities. The results just show that there is a significant difference between the two groups that needs to be explored more, which can be done through an independent sample t-test.

The second independent sample t-test analysis compared those who live on-campus to those who live off-campus and their opportunities to take part in informal interactions opportunities about sexual assault prevention. The results showed that there was a significant difference in the difference of scores between those who live on-campus (M= 0.14419, SD= 1.28726) and those lived off-campus (M= 1.2493, SD= 1.29382); $t(2261) = 3.450$, $p = .001$. The results show that those who live on-campus are more likely to have opportunities to have informal interaction about sexual assault prevention compared to

³ The chi-square analysis is a sum-total analysis. 0 means did not partake in any informal interaction opportunities, while 1 is partaking in 1 or more informal interaction opportunities. When ran as a sequential chi-square analysis, which was from 0 opportunities to 4 opportunities, the chi-square was still statistically significant.

those that live off-campus. The results of this paired t-test analysis are displayed in table 9. The implications of the results will be discussed in further detail in the implications.

Table 9. Comparing College Living Situations by Informal Interaction Opportunities (n=2,261)

Variables	Mean(SD)	t Value	p Value
On-Campus & Informal	1.4419(1.28726)	3.450	0.001**
Off-Campus & Informal	1.2493(1.29382)		

*p<.05; ** p<.01; ***p<.001

The independent sample t-test shows that there is a significant difference between the two types of college living situations when it comes to informal interaction opportunities, but it does not show what the predictors are, which is where logistic regression comes in.

The second logistic regression, which is presented in table 10, predicted opportunities of informal interactions about sexual assault prevention based on the variables listed in appendix A. The significant predictors of opportunities for informal interaction about sexual assault prevention are those who identify as something other than heterosexual, people who do not identify as male or female, those are not transfer students, those who are white as well as those who do not identify their race as other, those who live on-campus, those who have been trained in at least one sexual assault prevention program, and those who been a victim of sexual violence at any time in their life. This logistic regression model had a model prediction rate of 67.1%. The implications of these results will be explained in the discussion section.

Table 10. Logistic Regression Coefficients Predicting Students' Opportunities to Engage in Informal Interactions-Sexual Assault Education (n= 2,106)⁴

Variables	B	S.E.	Wald	Exp(b)
Gender: Other			18.942***	
Gender: Female	.147	.532	.077	1.159
Gender: Male	-.286	.533	.287	.751
Sexual Orientation	-.361	.173	4.344*	.697
Age	-.056	.051	1.190	.946
Year in School: Freshmen			8.572	
Year in School: Sophomore	-.125	.158	.620	.883
Year in School: Junior	.014	.187	.006	1.014
Year in School: Senior	.226	.224	1.019	1.254
Year in School: Other	-.809	.503	2.586	.445
Transfer	-.392	.109	12.817***	.676
Race/Ethnicity: White Non-Hispanic			9.916*	
Race/Ethnicity: African American Non-Hispanic	-.007	.150	.002	.993
Race/Ethnicity: Hispanic	-.182	.165	1.214	.834
Race/Ethnicity: Other	-.441	.145	9.189**	.644
College Living	.334	.115	8.507**	1.397
Heard of at least 1 Sexual Assault Prevention Programs	.307	.296	1.075	1.359
Trained in at least 1 Sexual Assault Prevention Program	.620	.189	10.790***	1.860
Sexual Violence Victimization-Past Year	-.066	.378	.031	.936

⁴ As previously mentioned, an area of concern that was raised while analyzing the data was multicollinearity among the variables. To see if multicollinearity existed, a bivariate correlation was conducted. The results of the bivariate correlation showed that there was a single multicollinearity within the logistic regression among Age and classification in school. After running the logistic regression without age, Year in School: Other, is the only variable that went from not statistically significant to statistically significant. Therefore in the new logistic regression, those who identify there year in school as Year in School: Other are statistically significantly less likely to have opportunities to engage in informal interaction opportunities.

Sexual Violence Victimization-Ever	.793	.276	8.251**	2.211
Constant	1.811	1.155	2.458	6.117
-2 log likelihood	2580.645			
Chi-Square	131.113			
P	.000			
Model Prediction Rate	67.1%			

*p<.05; ** p<.01; ***p<.001

An area of concern that was raised was if there was any multicollinearity among the variables. To see if multicollinearity existed, a bivariate correlation was conducted. The results of the bivariate correlation showed that there was a multicollinearity within the logistic regression. Age and classification in school were both measuring similar things, therefore showing up as a potential multicollinearity. After running the logistic regression without age, the results of the logistic regression were similar to the original logistic regression where age was included.

Implications

Based on the results above, the implications showed that there was ability to have informal interactions about sexual assault prevention need to be available for both those who live on-campus and off-campus. Informal interactions are often the way that many students have a way of learning about sexual assault prevention. The implication for being a proactive bystander is that there needs to be more opportunities for students to be a proactive bystander, regardless of where they live.

Due to there not being a significant difference in being a proactive bystander between on-campus living and off-campus living, implications are that there needs to be more opportunities to participate in proactive bystander intervention for both on-campus and off-campus living situations. The opportunities to be a proactive bystander need to be tailored to what population it is targeting. McMahon and Banyard suggested this need for tailored fit bystander opportunities for students because all students are different (McMahon & Banyard, 2012). What works for students who live on-campus may not work for those who live off-campus and vice-versus.

The results indicated that those who live on-campus had an average 1.44 opportunities for informal interactions compared to those who lived off-campus who had an average of 1.25 opportunities for informal interactions about sexual assault prevention. Since the results of the data analysis support those who live on-campus as having more opportunities for informal interactions about sexual assault prevention, there needs to be more of a focus for opportunities for informal interactions about sexual assault geared those who live off-campus. Due to programing within residential halls, informal interactions about sexual assault are bound to happen, but there is not that same opportunity for those who live off-campus (Riker and Decoster, 2008). Opportunities that are informal

interactions that can be geared towards those who live off-campus are meaningful conversations with peers, in a class room setting, as well as with family. Another way is by also making sexual assault prevention prevalent where they reside.

Even though the results showed support for those who live on-campus having more informal opportunities, the university at which this survey was conducted, programming, and more specifically sexual assault programming is not a requirement. Those who live on-campus are often exposed to programming and sexual assault programming through the programs put on through the residence halls, but attendance is not required at the programs. Other programming and sexual assault programming put on by the university is offered to all students is optional as well. Sexual assault programming is not required in any form for students.

The first logistic regression model for proactive bystander intervention suggested three main significant findings. The first significant finding is those who were a freshman through a senior were significantly more likely to be a proactive bystander compared to those who identify as something other than a freshman through senior. This implies that students that are beyond their senior year are not likely to be a proactive bystander. An implication of this is to have options and programming that is geared towards those who do not identify as freshman through senior. The second significant finding of the logistic regression for proactive bystander intervention is that those who identify as a transfer student are significantly less likely to be a proactive bystander. Due to this finding, a suggestion would be to have a training or some sort of transfer only program that addresses sexual assault prevention and proactive bystander intervention. The third and last significant finding is that those who took part in at least one sexual assault prevention

program are more likely to be proactive bystanders. This implies that if a student were to take part in a sexual assault prevention program, then they would be more willing to be a proactive bystander. These are the implications for the first logistic regression. The implications of the second logistic regression are going to be different from the first logistic regression (McMahon & Banyard, 2012).

The second logistic regression model for opportunities for informal interactions (McMahon, 2015) about sexual assault prevention multiple significant findings. When it came to the gender variable, it was found that those who do not identify as male or female, but rather identify as other are more likely to have opportunities for informal interactions in regard to sexual assault prevention. Due to this implication, having informal interactions about sexual assault specifically geared toward a specific gender, it would bring more opportunities to those who identify as male or female. The next significant implication is that those who identify as heterosexual are less likely to have opportunities for informal interactions about sexual assault prevention. As like the first logistic regression, those who identify as a transfer student are significantly less likely to have opportunities for informal interactions about sexual assault prevention. As already mention, programming with the focus of transfer students would be a way of improving their opportunities for informal interactions. The next variable that had some significant findings was the race/ethnicity variable. Those who identified as white non-Hispanic are the ones who are more likely to have the opportunities for informal interactions. On the other hand, those who identify as “other race or ethnicity” are significantly less likely than those who are white to have opportunities for informal interactions about sexual assault prevention. The other two races/ethnicities listed were not significantly different compared to white non-Hispanics

when it came to opportunities for informal interaction about sexual assault. Unlike the first logistic regression, college living situation mattered in this logistic regression. Those who identify as living on-campus are more likely to have opportunities to have informal interactions about sexual assault. Similar to the first logistic regression, those who have participated in at least one sexual assault prevention program are significantly more likely to have opportunities for informal interactions regarding sexual assault prevention. The last variable to have a significant influence on whether a person has opportunities for informal interactions about sexual assault is whether they have ever been a victim of sexual violence in their lifetime. Those who have been a victim of sexual violence in their lifetime are more likely to have the opportunities for informal interactions about sexual assault prevention. Through all of the findings and implications, one aspect is consistent, the need to make programs tailored to the students, which is a suggestion by McMahon and Banyard (2012).

At the end of their paper, McMahon and Banyard (2012) described what is needed to make students into bystanders. One of the main points that McMahon and Banyard make is that educators need to be able and willing to assist students in figuring out how to be a bystander in their way. Many of the implications given from the data analysis results show that one group is more likely to do something compared to another group. With this variance, educators and those working with students can look at what is needed for their campus to be successful proactive bystanders. Educators and those working with students can also look at ways to create informal interactions about sexual assault prevention so that students are always learning even if it is not in a formal setting. One of the main findings is that there is a difference between those who live on-campus and those who live off-campus (McMahon & Banyard, 2012).

Riker and Decoster stated that living on-campus would influence a students' behavior as well as contribute to the idea that learning is a total process (2008). Riker and Decoster stated that living on-campus is part of total learning. This idea of learning is a total process, includes the idea that learning takes place inside and outside of a classroom on a college campus. An aspect of total learning is learning about sexual assault and sexual assault prevention. Within residential halls, there is programming as well as other informal interaction opportunities to learn about sexual assault that are not necessarily available to those who do not live on-campus (2008).

Limitations

The present study is limited by being conducted at a singular Southeastern University. Due to only being done at one university in a specific location, this study may not reproduce the same results at a similar university in a different part of the country. Another limitation is that the survey was not mandatory, therefore it resulted in a low sample size. A small sample size compared to a larger sample size could have resulted in different results. Lastly, the study is a cross-sectional study. Being a cross-sectional study means that it is a snap-shot in time but it does not follow the participants for a time. If the study was as longitudinal study, it would have followed participants and the results would have been collected over a period of time (Schumacker, 2015).

Conclusion

Previous research has defined what the nature of the learning is in the college housing at both the theoretical as well as operational levels (Riker & Decoster, 2008). Specifically, this study worked on producing a theoretical housing programming model that is responsive to students living in college housing needs. The two basic assumptions that Riker and Decoster point out about the role of education in college student housing are (1) the environment influences behavior and (2) learning is a total process. The environment influences behavior means that a student is influenced daily by the physical and interpersonal environment that on campus housing offers. Learning as a total process means that students spend more time with in on campus housing and other campus locations, therefore those who work for the university, whether a professional or a student worker, have an impact on the students learning of the self and other societal factors that do not take place in the class room.

This thesis has given insight into the importance of college living situations influence on being a proactive bystander and informal interaction opportunities. The results suggest that being a proactive bystander is not determined by college living situation but that opportunities for informal interactions about sexual assault prevention might be influenced by college living situation. The results of this thesis have suggested that those who live on campus are going to have more informal interaction opportunities about sexual assault prevention, which is essentially another form of learning (McMahon, 2015).

This thesis will also shed light on why programming should be required for off campus students to coordinate with the programming for campus residents to effectively reduce sexual assaults not only on campus but at any activity that includes college age

students. There is a difference in the opportunities given for informal interactions about sexual assault, programing could be the change to make the two groups more similar (McMahon, 2015).

In closing, sexual assault prevention activities and programming are needed on college campuses. To make the activities and programs more effective, educators and those that work with students need to make an effort in tailoring programs and activities to the students. Tailoring the programs and activities will make it easier for someone to identify with what is going on and be willing to become a proactive bystander. In the end these changes, could see a result of less sexual assaults on college campuses (McMahon & Banyard, 2012).

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Appendix: Campus Climate Survey

Variable Name	Variable Question	Measured within Survey
Age	What is your birthday?	Month, Day, Year
Classification in School	What is your Year in School?	1: freshmen
		2: sophomore
		3: Junior
		4: senior
		5: other
Gender Identity	Which best describes your gender identity?	0: woman
		1: man
		2: transgender woman
		3: transgender man
		4: genderqueer/ gender non-conforming
		5: questioning
		6: not listed
Sexual Orientation	Do you consider yourself to be:	7: other
		0: heterosexual
		1: gay or lesbian
		2: bisexual
		3: asexual
		4: questioning
		5: not listed
Living Situation	Where do you live during the current school year while you are at college? (choose one answer.)	6: other
		1: Single-sex residence hall or dormitory
		2: Co-ed residence hall or dormitory
		3: Other university housing
		4: Fraternity/sorority house
		5: Off-campus house or apartment
		6: Other

Sexual Assault Prevention Activities	Since fall 201X at [university] have you (choose all that apply) ⁵	0= no (not checked) 1= yes (checked)
Knowledge of Sexual Assault Prevention Programs	Think back over your time at [university], Please review the following listing of bystander training or intervention programs and check any that you have heard of: ⁶	0:no (no answer) 1: yes (checked)
Trained in at least 1 Sexual Assault Prevention Program	Have you received training? (Never, Once, Multiple Times) ⁷	0: 0 training in any of the programs 1: training in at least one (or more) of the programs once (or multiple times)
Transfer	Respondent reported whether they were a transfer student	1: Yes 2: No 3: Unknown 4: Not Applicable
Race/ Ethnicity	How would you best describe yourself? Check all that apply. ⁸	1: White Not Hispanic

⁵ Discussed sexual misconduct/rape in class, Discussed the topic of sexual misconduct with friends, Discussed sexual misconduct with a family member, Attended an event or program about what you can do as a bystander (or up stander) to stop sexual misconduct, Attended a rally or other campus event about sexual misconduct or sexual assault, Seen posters about sexual misconduct, Seen or heard campus administrators or staff address sexual misconduct, Seen crime alerts about sexual misconduct or sexual assault, Read a report about sexual violence at UNCC, Visited a UNCC's website with information on sexual misconduct or sexual assault, Volunteered or interned at an organization that addressed sexual misconduct/sexual assault at UNCC, Seen or heard about sexual misconduct in a student publication or media outlet, Taken a class to learn more about sexual misconduct or assault, Other

⁶ Alcohol EDU, Better Bystanders, BeVocal, Bring in the Bystander, Bystander Intervention Training, Care Advocates, Choices, Consent is Sexy, Green Dot, Haven, It's on Us, Not on our grounds, One Act, RACE, Safe, Step Up, Stand Up, STRIVE, Think About It, Umatter, Upstand, What the Help, Another Bystander Training program you completed, I have not heard of any of these trainings

⁷ Alcohol EDU, Better Bystanders, BeVocal, Bring in the Bystander, Bystander Intervention Training, Care Advocates, Choices, Consent is Sexy, Green Dot, Haven, It's on Us, Not on our grounds, One Act, RACE, Safe, Step Up, Stand Up, STRIVE, Think About It, Umatter, Upstand, What the Help, Another Bystander Training program you completed, I have not heard of any of these trainings

⁸ American Indian or Alaska Native, Asian, Black or African American, Native Hawaiian or Other Pacific Islander, White, or Other

		2: Black Not Hispanic 3: Hispanic 4: Other
Sexual Violence Victim within Past Year	Respondents reported if they were a victim of sexual violence within the past year	0: No 1: Yes
Sexual Violence Victim within Lifetime	Respondents reported if they were a victim of sexual violence within their lifetime	0: No 1: Yes