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Racial Differences in Bystander Intervention Intentions to Stop Sexual Harassment: An Application of The Reasoned Action Approach

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Abstract

Introduction: Sexual harassment is a pervasive and often subtle type of sexual violence that can have lasting health and academic consequences among college students. Bystander intervention is a commonly used method in colleges to address sexual violence. For this study, first objective was to assess racial differences for RAA-based antecedents (intentions, attitudes, perceived norm, PBC) of BI to stop sexual harassment. A secondary objective was to examine determinants of attitudes, perceived norm, and PBC to evaluate if racial differences existed, and if so, inform future public health promotion interventions.

Methods: Traditional-aged undergraduate students (n = 294; 68% female/69% white) from two universities took an online survey assessing RAA constructs towards engaging in BI to stop sexual harassment. Separate Linear regression models [white-, BIPOC students((black, indigenous, and people of color)] were used to regress RAA constructs on intentions to engage in BI.

Results: While both regression models explained a significant proportion of the variance for BI intentions, the model for BIPOC students' intentions had more variance explained (adjusted $R^2 = .405$) compared to the model for white students (adjusted $R^2 = .339$).

Conclusion: This preliminary study suggests that perceptions to engage in BI to prevent sexual harassment may vary by race. Future research should investigate the role of campus environment in how different racial and ethnic groups feel about BI engagement.

Keywords: bystander intervention, Reasoned action approach, Sexual harassment

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Introduction

Sexual Harassment

Sexual harassment is a prevalent issue that occurs in many situations including in educational and athletic settings, workplaces, public transportation, online, and other daily contexts. The Equal Employment Opportunity Commission defines sexual harassment as any noncontact form of sexual violence and as a form of harassment including unwelcome sexual advances, sexual favor requests, and verbal and/or physical harassment of a sexual nature in the workplace or learning environment.[1] While most research regarding sexual violence focuses on determinants and consequences of sexual assault, less focuses on sexual harassment despite most women (65%) and some men (25%) experiencing it at least once in their lifetime.[2]

Sexual harassment is especially prevalent on college campuses, as up to 47% of students report sexual harassment victimization, much of which is initiated by someone affiliated with their university (ex. other students).[3] Female students also are 147% more likely to report sexual harassment compared to male students.[4] People who identify with another gender (e.g., transgender, nonbinary) also experience high rates of sexual harassment.[5] Research is mixed on the link between race/ethnicity and sexual harassment victimization, with some studies finding that white women experienced sexual harassment at higher rates than other racial groups[6], while others show women from racial minority groups experience greater rates of harassment and more negative consequences.[7-8] Like other manifestations of sexual violence, sexual harassment victims experience pain and suffering.[9] Victimization can lead to mental, emotional, and physical health consequences (e.g. post-traumatic stress disorder, depression), increased substance use, and disruptions in academic and/or professional experiences.[4]

Bystander Intervention

Bystander intervention (BI) training is considered a gold standard approach on college campuses for preventing sexual violence.[10] Training potential bystanders to intervene is crucial because bystanders are present in approximately one-third of situations involving sexual violence.[11] Within the context of sexual harassment, bystanders can act in many ways such as speaking up when hearing someone say something offensive or demeaning

to others, and acting as a deterrent when victims are in uncomfortable situations with perpetrators.[12-14] It has been theorized that BI programming can not only enhance individual skills to promote BI engagement but can also shift social norms and change the organizational climate of universities that tolerates sexual harassment, which can decrease sexual harassment incidence.[9] Sexual harassment has also been identified as an independent risk factor for greater forms of sexual violence (e.g. sexual assault).[15] Therefore, preventing sexual harassment will likely have the additive effect of preventing future sexual assault cases.

Race and Bystander Intervention

Few studies have evaluated the relevance of race/ethnicity on outcomes related to bystander interventions[9] and existing research on the relationship between race/ethnicity and BI are mixed. In one study researchers[14] did not find differences overall in students' BI behavior based on race, but they noted lower odds of BI engagement for Asian American students compared to white students in one situation (taking action after hearing a friend engaged in forcible rape). Also, the study did find racial differences in opportunities to intervene, that is, participants reporting whether they've been witness to high-risk situations that would necessitate BI, depending on the situation (e.g., hearing a friend say they wanted to give alcohol to someone have intercourse). In another study examining race, college status (year in school), gender, BI norms on missed opportunities for BI (witnessing but not acting) and BI engagement, researchers reported race, gender, year in school and BI peer norms had a significant role in predicting BI engagement and missed opportunities.[16] More specifically, African American men who thought their peers were in favor of BI reported less missed opportunities, while African American men who believed their peers were not in favor of BI reported a greater number of missed opportunities to engage in BI. Overall, white students reported fewer BI behaviors and more missed opportunities to engage in BI than Black students.

Reasoned Action Approach

There has been little research done to investigate students' beliefs and perceptions of BI to prevent sexual harassment, and among this work there is limited use of theoretical frameworks to understand associated antecedents. Current research indicates that interventions based on theory have a greater effect in mediating health behavior compared to those that do not.[17-18] Theories are important because they delineate cognitive and affective structures of behavior. They also guide the improvement of public health promotion and education efforts.[19] Given the need for a theory-based understanding, this study applies the Reasoned Action Approach (RAA), which is an integrative model derived from the Theory of Reasoned Action.[20] and the Theory of Planned Behavior.[21] The RAA has been operationalized to several detection, risk, and protective behaviors including smoking, exercise, blood donation, and safe sex promotion.[22] The RAA has been used to understand BI engagement to prevent sexual assault[23-24] however no studies have explored this model to understand BI engagement to prevent sexual harassment. The tenets of the RAA are that behavioral intentions combined with perceived behavioral control determine the enactment of behavior. Concurrently, intentions are determined by the combination of one's attitudes (including both experimental and instrumental attitudes), perceived norms (including both injunctive and descriptive norms), and perceived behavior control (PBC; including both capacity and autonomy).

The first objective of this study was to assess differences in RAA-based antecedents (intentions, attitudes, perceived norm, PBC) of BI to stop sexual harassment based on race. A secondary objective was to examine the determinants of attitudes, perceived norm, and PBC to assess if racial differences existed, and if so, inform future public health promotion interventions. Four constructs of the RAA were measured directly (intentions, attitudes, perceived norms, and PBC) and eight constructs were measured indirectly (behavioral beliefs, outcome evaluations, injunctive normative beliefs, motivation to comply, descriptive normative beliefs, identification with referents, control beliefs, and perceived power).

Methods

Procedures

Institutional Review Board approval was obtained before data collection. Between January and March of 2022, data were collected at one mid-size public university in the Western US and a large public university in the Southeastern US; neither university is a minority serving institution (MSI). With instructor permission, the survey was presented to students through a short video or online presentation. Qualtrics (Provo, Utah) was used to collect online surveys, which took approximately eight to ten minutes to complete.

Students completed an online consent form at the beginning of the survey. Participants had to be between 18-25 years old and a current undergraduate student at one of the participating universities to be eligible to complete the survey. After completing the informed consent, participants were given a description of sexual harassment (unwanted sexual comments, gestures, or actions targeting people based on their actual or perceived gender, gender expression, or sexual orientation)[9] and common examples [ex. requiring sexual favors to get rewards or benefits (e.g., a better grade on an assignment); unsolicited sexual advances (e.g., continued pressure to go on a date); sexist remarks (e.g., women are too emotional

to be CEO's); homophobic or transphobic remarks (e.g., saying a trans woman isn't a woman because she does not have breasts); harassment committed through electronic means (e.g., emails, texts, social media); pranks of a sexual nature stalking (e.g., keeping track of a significant other's location); and suggestive comments about a person's body (e.g., making a comment about the size of a person's butt)]. A definition of BI (a third-party witness intervening to stop or prevent sexual harassment from occurring) and examples (when someone tells their friend to stop catcalling women as they walk by; when someone steps in to change the subject of a conversation where one peer was sexualizing another; and, when someone asks their friend to voice disapproval of a rape joke) were also presented. Survey questions that followed included demographic, direct RAA-based items (intentions, instrumental and experiential attitudes, injunctive and descriptive norms, capacity and autonomy), and indirect RAA-based items (e.g. behavioral belief and outcome expectation pairs) (See Table 1 for example items). As Fishbein and Ajzen[25] note, the first step towards measuring RAA constructs is clearly defining a behavior to include a *target*, an *action*, a *context* for the action, and a *time* period in which the behavior is to be performed (e.g. the TACT principle). Therefore, all measured RAA constructs were oriented around the behavior 'engaging in bystander intervention to stop sexual harassment in the next three months'. After cleaning the data and removing participants who completed less than 75% (a priori cut point), 294 participants remained.

For an initial power analysis, to predict a medium effect size, an *a priori* sample size of 98 was determined for each racial sub-group we intended to eavlauted.[26.] Among the 294 participants, most (68.8%) identified as white, while other racial sub-groups were small: 12.8% identified as biracial or multiracial, 10.4% as Asian, 3.2% as black or African American, 2.4% as Pacific Islander, 1.6% as Middle Eastern or Arab, and .8% American Indian or Alaskan Native. In addition, 17.7% of the sample identified as Hispanic or Latinx. Since none of the racial sub-groups were large enough to meet the *a priori* sample size threshold, it was decided to combine all of the non-white sub-groups into one group, which resulted in two groups [white (n = 188) and non-white (n = 106)] large enough to satisfy the initial power analysis. In the literature, the acronym BIPOC (black, indigenous, and people of color) has been used to describe instances when racial sub-groups are described together, and thus, the term will be used throughout this manuscript as well.[27-28]

Measures

Direct Measures of RAA Constructs

Intentions, attitudes, perceived norms and PBC were measured as direct measures of the RAA. Face and content validity were established by an expert panel review. Cronbach alpha scores indicated each scale was reliable for both groups (BIPOC, white): [intentions (BIPOC = 0.96; white = 0.77); attitudes (BIPOC = 0.86; white = 0.70); instrumental attitudes (BIPOC = 0.93; white = 0.90); experiential attitudes (BIPOC = 0.80; white = 0.61); perceived norms (BIPOC = 0.83; white = 0.85); injunctive norms (BIPOC = 0.89; white = 0.92); descriptive norms (BIPOC = 0.72; white = 0.75); PBC (BIPOC = 0.85; white = 0.81); capacity (BIPOC = 0.86; white = 0.80);

Table 1. Example Reasoned Action Approach Questionnaire Items

Generalized-Level RAA Questionnaire Items
Intentions: In the next 3 months, if I observe sexual harassment, I am willing to engage in bystander intervention. < Strongly Agree/Strongly Disagree >
Instrumental Attitudes: In the next three months, if I observe sexual harassment, then for me to engage in bystander intervention would be… < Effective/ Ineffective >
Experiential Attitudes: For me, engaging in bystander intervention to stop sexual harassment situations over the next three months would be… < Satisfying/ Unsatisfying).
Injunctive Norms: Most people who are important to me would < Strongly Approve/Strongly Disapprove > of me engaging in bystander intervention if I observed sexual harassment.
Descriptive Norms: Most students at this university will engage in bystander intervention if they observe sexual harassment. < Strongly Agree/Strongly Disagree >
Capacity: If it were entirely up to me, I am < Completely confident/Not at all confident > that I can engage in bystander intervention if I observe sexual harassment during the next 3 months.
Autonomy: Factors outside my control < Definitely Do/Definitely Do Not > limit whether or not I can engage in bystander intervention if I observe sexual harassment in the next 3 months
Belief-Level RAA Questionnaire Items
Behavioral Belief: In the next 3 months, if I observed sexual harassment and engaged in bystander intervention, then it will prevent the situation from escalating. < Strongly Disagree/Strongly Agree >
Outcome Evaluation: For me, preventing the situation from escalating is... < Unimportant/Important >.
Injunctive normative belief: My family thinks I should engage in bystander intervention if I observe sexual harassment over the next 3 months. < Strongly Disagree/Strongly Agree >
Motivation to comply: I want to do what my family thinks I should do. < Strongly Disagree/Strongly Agree >
Descriptive normative belief: Most students in Greek life would engage in bystander intervention if they observed sexual harassment. < Strongly Disagree/ Strongly Agree >
Identification with referent: I want to behave like students in Greek life. < Strongly Disagree/Strongly Agree >
Control belief: How often may you be intoxicated in times when it might be necessary to engage in bystander intervention to prevent sexual harassment during the next 3 months? < Never/Always >
Perceived Power: Me being intoxicated would < Prevent me/Enable me > to engage in bystander intervention to prevent sexual harassment during the next three months.

autonomy (BIPOC = 0.82; white = 0.82)].[29]

All items measuring intentions, attitudes, perceived norms and PBC were on a 7-point Likert scale. Scales were summated and divided by the number of items on the scale to give each a range from -3 to + 3. Four items were used to measure intentions. Eight items were used to measure attitudes, with four measuring experiential attitudes and four measuring instrumental attitudes. Six items measured perceived norms, with three measuring injunctive norms and three measuring descriptive norms. Finally, PBC was measured using five items, with three measuring capacity and two measuring autonomy. Example items can be found on Table 1.

Indirect Measures of RAA Constructs

Indirect measures of the RAA used 'value-expectancy' questions that containing both belief-based and value-based questions.[25] Twenty-two indirect belief-based items were developed as a result of an elicitation of beliefs that was conducted with 63 undergraduate students between the ages of 18 and 25, and the same universities. The elicitation included using open-ended questions for behavioral beliefs (What do you see as the advantages/ disadvantages of engaging in BI to prevent sexual harassment and What would you enjoy/hate of engaging in BI to prevent sexual harassment?), injunctive normative beliefs (Please list the individuals or groups who would approve of you or support you/disapprove or not support you of engaging in BI to prevent sexual harassment), descriptive normative beliefs (Please list the individuals or groups who you think are most likely/least likely to engage in BI to prevent sexual harassment), and control beliefs (Please list any factors or circumstances that would prevent you/enable you to engage in BI to prevent sexual harassment). Based on the results of a beliefs elicitation six behavioral beliefs, six injunctive normative beliefs, five descriptive normative beliefs, and five control beliefs were developed. Examples of each belief type item includes: "In the next 3 months, if I observed sexual harassment and engaged in bystander intervention, then it will prevent the situation from escalating (strongly disagree/ strongly agree)" (behavioral belief), "My family thinks I should engage in bystander intervention if I observe sexual harassment over the next 3 months (strongly disagree/ strongly agree)" (injunctive normative belief), "Most students in greek life would engage in bystander intervention if they observed sexual harassment (strongly disagree/ strongly agree)" (descriptive normative belief), and "How often may you feel unsafe in times when it might be necessary to engage in bystander intervention to prevent sexual harassment during the next 3 months (never/always)" (control belief). All belief-based measures were evaluated on a 7-point semantic differential scale (1 = strongly disagree and 7 = strongly agree).

A value-based item was next developed to correspond with each belief-based item. "For me, preventing the situation from escalating is (unimportant/important)" (an outcome evaluation measure) was developed to parallel the behavioral belief previously mentioned [e.g. "In the next 3 months, if I observed sexual harassment and engaged in bystander intervention, then it will prevent the situation from escalating (strongly disagree/ strongly agree)"]. The same system was used for all belief-based items (see Table 1 for examples). Value-based items were assessed on a 7-point semantic differential scale [-3 = definitely not and + 3 = definitely].

Statistical Analyses

SPSS 25 was used for all analyses. To assess group differences (BIPOC and white students) for RAA variables (intentions, attitudes, which included subscales for instrumental and experiential attitudes, perceived norms which included subscales for injunctive and descriptive norms, and PBC which included subscales for capacity and autonomy) independent t-tests were utilized. If statistical significance occurred, practical significance was evaluated using Cohen's d (small [$d = 0.2$], medium [$d = 0.5$], and large [$d = 0.8$]).[30]

To evaluate the determinants of intentions for BI and compare between both BIPOC and white students linear regression analyses were utilized. Independent variables to predict intentions included: experiential and instrumental attitudes, descriptive and injunctive norms, autonomy, and capacity. Outliers, multicollinearity, normality, and homoscedasticity were all tested to assure assumptions were met.

For the RAA indirect measures behavioral, injunctive normative, descriptive normative and control beliefs were all multiplied to its corresponding value-based item multiplier (i.e. outcome evaluation, motivation to comply, identification with a referent, and perceived power). Then, the product-pair was correlated to the summated direct RAA construct measure. To illustrate, all [control belief x perceived power] pairs were correlated with the direct capacity and autonomy scales, and the attitudes and norms constructs followed the same pattern (for additional specifics about this procedure, see Fishbein & Ajzen[25]).

Results

The average age of participants was 19.14 years old (SD = 1.16), with slightly more than half (51.2%) freshman, almost one third (30.4%) sophomores, 13.6% were juniors and 4.8% were seniors. Just under one third (32.8%) of participants were members of a social sorority or fraternity. Approximately two thirds (68.0%) of participants identified as female and approximately one third identified as male (32.0%). For sexual orientation, 87.9% identified as heterosexual, 6.5% as bisexual, 2.4% as lesbian and less than 1% of the following: asexual; gay;

queer; and, questioning.

Results showed that correlations were strongest between intentions and instrumental attitudes (white (r = 0.507; $P < .001$); BIPOC (r = 0.578; $P < .001$), and weakest with autonomy (white (r = 0.240; $P < .001$); BIPOC (r = 0.194; $P < .05$). For BIPOC students, the second strongest correlation with intentions was injunctive norms (r = 0.508; $P < .001$) while for white students it was capacity (r = 0.487; $P < .001$). (Table 2). BIPOC participants also had significantly lower intentions ($P = .035$; $d = .25$), injunctive norms ($P = .013$; $d = .30$), and capacity ($P = .016$; $d = 0.300$) compared to white students (Table 3).

No assumptions were violated when tested for the regression models: outliers (via Cook's distance), multicollinearity (via variance inflation factor), and homoscedasticity via residuals plots constructed and examined for each model. In the first model for BIPOC students, instrumental attitudes ($P < .001$), capacity ($P < .014$) and descriptive norms ($P < .032$) explained 40.5% of the variance of intentions, while in the second model for white students, descriptive norms ($P < .001$) and instrumental attitudes ($P = < .014$) explained 33.9% of the variance of intentions. According to standardized beta coefficients for the BIPOC students, instrumental attitudes was the strongest predictor (β = .438), however, for the white students, descriptive norms was the strongest predictor (β = .253) (Table 4).

Correlations between the indirect (value-expectancy pairs) and direct measures of the RAA constructs can be found in Table 5. Effect sizes were mostly small to medium (Cohen, 1992), however not all cases were significant. For BIPOC students *create a safe environment* (r = 0.41) had the strongest relationship with instrumental attitudes and *make me proud to help others* and *educate others through example* (r = 0.45) had the strongest relationship with experiential attitudes. For white students *prevent the situation from escalating* (r = 0.61) had the strongest relationship with instrumental attitudes and *make me proud to help others* (r = 0.50) had the strongest relationship with experiential attitudes. The strongest injunctive normative referent for BIPOC participants was *my close friends* (r = 0.53), while the strongest referent for white participants was *victims of sexual harassment* (r = 0.48). For both groups of students, *young adults my age* [NW (r = 0.24); W (r = 0.45)] was the strongest referent for descriptive norms. Finally, for capacity, *feel unsafe* (r = 0.42) was strongest for BIPOC students, while *have the support of your peers* (r = 0.49) was strongest for white students. For Autonomy, *have the support of your peers* was strongest for both groups [NW (r = 0.31); W (r = 0.43)].

Discussion

This is the first study to examine differences in BI antecedents (attitudes, perceived norms, PBC) by race (white, BIPOC) to engage in BI specifically to stop or prevent sexual harassment. As other studies have examined the impact of race on BI intentions and behavior to prevent sexual assault, sexual harassment is particularly important to study due its pervasive and

Table 2. Pairwise correlations (r) among Reasoned Action Approach constructs

		BIPOC (n = 106)						
		Intentions	**Instrumental Attitudes**	**Experiential Attitudes**	**Injunctive Norms**	**Descriptive Norms**	**Capacity**	**Autonomy**
White (n = 188)	Intentions	-	0.578***	0.249**	0.508***	0.420**	0.495***	0.194*
	Instrumental Attitudes	0.507***	-	0.445***	0.690***	0.353***	0.530***	0.378***
	Experiential Attitudes	0.312***	0.356***	-	0.382***	0.255**	0.413***	0.175
	Injunctive Norms	0.477**	0.610***	0.377***	-	0.496***	0.652***	0.480***
	Descriptive Norms	0.482***	0.506***	0.317***	0.483***	-	0.450***	0.294**
	Capacity	0.487***	0.729***	0.495***	0.671***	0.497***	-	0.519***
	Autonomy	0.240***	0.478***	0.223**	0.393***	0.370***	0.466***	-

$P < 0.001$***; $P < 0.01$**; $P < 0.05$*

Table 3. Differences in RAA constructs between BIPOC and white

	BIPOC (n = 106) Mean (SD)	**White (n = 188) Mean (SD)**	***P*-value**	**Effect Size (Cohen's d)**
Behavioral Intentions	1.58 (1.6)	1.93 (1.3)	0.035	0.25
Instrumental Attitudes towards the behavior	1.85 (0.8)	2.05 (1.0)	0.128	--
Experiential Attitudes towards the behavior	0.79 (1.4)	0.79 (1.3)	0.984	--
Injunctive Norms about the behavior	1.86 (1.3)	2.19 (1.0)	0.013	0.30
Descriptive Norms about the behavior	0.87 (1.2)	1.05 (1.1)	0.203	--
Capacity over the behavior	1.65 (1.3)	1.98 (1.0)	0.016	0.30
Autonomy over the behavior	1.87 (1.1)	2.11 (1.0)	0.070	--

Table 4. Parameter estimates and model prediction for determinants of intentions

	Adjusted R^2	Unstandardized coefficients Beta	Standard Error	Standardized coefficients β	95% Confidence Interval for β	t	*P*
BIPOC Participants							
Instrumental Attitudes	0.405	0.546	0.135	0.438	0.277 – 0.814	4.029	<0.001*
Capacity		0.332	0.133	0.274	0.068 – 0.595	2.500	0.014*
Descriptive Norms		0.251	0.115	0.192	0.022 – 0.479	2.175	0.032*
Autonomy		-0.254	0.126	-0.182	-0.505 – 0.030	-2.008	0.057
Experiential Attitudes		-0.110	0.098	-0.098	-0.305 – 0.084	-1.126	0.263
Injunctive Norms		0.070	0.153	0.056	-0.234 – 0.373	0.456	0.649
White Participants							
Descriptive Norms	0.339	0.299	0.089	0.253	0.129 – 0.469	3.475	<0.001*
Instrumental Attitudes		0.300	0.121	0.231	0.062 – 0.538	2.491	0.014*
Injunctive Norms		0.209	0.109	0.162	-0.006 – 0.425	1.918	0.057
Capacity		0.115	0.126	0.093	-0.133 – 0.364	0.916	0.361
Autonomy		-0.107	0.088	-0.086	-0.281 – 0.067	-1.213	0.227
Experiential Attitudes		0.062	0.070	0.061	-0.077 – 0.201	0.883	0.378

widespread nature on college campuses. White students had significantly higher BI intentions, injunctive norms, and capacity than BIPOC students. This may be influenced by the university environments in which data were collected. Both universities in this study are primarily white institutions (PWI), which is an unofficial term used to describe colleges or universities that do not meet any official designation for Minority Serving Institution (MSI).[31] Due to a hostile campus climate and discrimination, students of color may have a lower sense of belonging at a PWI.[32-34] This may lead to lower feelings of ability (capacity) and motivation (intentions) to engage in BI and lesser feelings of peer support for BI (injunctive norms).

The regression model for BIPOC students explained a slightly greater proportion of variance than for white students. This is encouraging for our understanding of BIPOC students' beliefs about BI, which is under-examined. For BIPOC students, instrumental attitudes was the strongest predictor, and for white students, descriptive norms was the strongest predictor. This means that BIPOC students' feelings about the outcomes of intervening (i.e., valuable, beneficial, important) are particularly impactful, while white students' perceptions of whether their peers are also engaging in BI is particularly impactful. However, it should be noted that instrumental attitudes was a significant determinant of intentions for white students as well, so interventions for this group should include behavior change techniques that enhance both. A difference between the groups was that capacity was a significant determinant of intentions for BIPOC students, but not for white students.

As previously mentioned, instrumental attitudes was the primary determinant of intentions for BIPOC students and descriptive norms was the primary determinant of intentions for white students. As Pryor[35] notes, there are three primary ways of influencing different kinds of attitudes and norms. First, interventions can find ways to strengthen beliefs in behavioral outcomes, or referents, that are already favorably evaluated. Next, interventions can find ways to reduce the strength of beliefs in behavioral outcomes, or referents, that are currently unfavorably evaluated. Finally, interventions can teach new information about behavioral outcomes, or referents. According to the value-expectancy pairs (Table 5) for BIPOC students 'creating a safe environment', 'educate others through example' and 'preventing the situation from escalating' were all moderately related to instrumental attitudes. This can translate to public health interventions through behavior change techniques that reinforce beliefs that BI can create safer environments for everyone, rectify beliefs that you can de-escalate dangerous situations without feeling embarrassed or looked down upon, and introduce new beliefs such as BI creates an environment where more people will feel empowered to help when they see others performing BI. Similarly, messages can be tailored to change descriptive norms among white students using the value-expectancy pairs (Table 5) 'my friends', 'young adults my age' and 'friends of the perpetrator of sexual harassment'.

Limitations

This study's results should be viewed considering some limitations. The racial and ethnic diversity of this sample was limited, which is a common problem in sexual violence research in college students. Many studies have limited racial diversity amongst their college participant population; a study by Kleinsasser and colleagues[36] examining the effect of online BI program on the prevention of sexual violence demonstrates this limited racial diversity as more than half their participant population consisted of non-Hispanic White participants.

Table 5. Determinants of instrumental & experiential attitudes, injunctive & descriptive norms, capacity and autonomy

	BIPOC			White						
Behavioral Beliefs	Belief Strength (bb_i)	Outcome Evaluation (oe_i)	(bb_i x oe_i)	Belief Strength (bb_i)	Outcome Evaluation (oe_i)	(bb_i x oe_i)	Correlation of bb_i x oe_i with Instrumental Attitudes		Correlation of bb_i x oe_i with Experiential Attitudes	
	M(SD)	M(SD)	M(SD)	M(SD)	M(SD)	M(SD)	BIPOC	White	BIPOC	White
Escalate	5.70 (1.2)	2.18 (1.3)	13.08 (7.7)	5.45 (1.3)	2.44 (0.9)	13.81 (6.6)	0.31***	0.61***	0.32***	0.35***
Proud	5.74 (1.4)	1.17 (1.9)	8.11 (11.3)	6.01 (1.2)	1.68 (1.7)	11.07 (10.5)	0.25**	0.23**	0.45***	0.50***
Educate	5.73 (1.3)	1.62 (1.5)	10.51 (9.2)	5.88 (1.3)	1.82 (1.5)	11.85 (9.3)	0.37***	0.39***	0.45***	0.44***
Fail	2.59 (1.7)	0.92 (1.8)	2.92 (5.4)	2.92 (1.8)	0.94 (1.8)	3.28 (6.4)	0.15	-0.03	0.22*	0.10
Environment	5.60 (1.3)	2.36 (1.0)	13.80 (6.6)	5.58 (1.3)	2.41 (0.9)	13.90 (6.7)	0.41***	0.49***	0.28**	0.32***
Confront	5.18 (1.4)	0.58 (1.7)	3.52 (9.5)	5.22 (1.3)	0.61 (1.8)	3.96 (10.1)	0.12	0.13	0.38***	0.36***
Injunctive Normative Beliefs	Belief Strength (inb_i)	Motivation to Comply (mtc_i)	(inb_i x $mtc)_i$	Belief Strength n(inb_i)	Motivation to Comply (mtc_i)	(inb_i x mtc_i)	Correlation of inb_i x mtc_i with Injunctive Norms			
							BIPOC	White		
Fam	5.46 (1.7)	1.28 (1.7)	8.73 (9.4)	6.03 (1.3)	1.62 (1.5)	10.67 (9.6)	0.53***	0.35***		
Friend	5.99 (1.2)	1.45 (1.5)	9.70 (9.4)	6.22 (1.1)	1.63 (1.5)	10.81 (9.6)	0.55***	0.40***		
Vict	6.35 (1.2)	1.73 (1.4)	11.74 (9.5)	6.56 (1.0)	1.90 (1.4)	12.90 (9.1)	0.48***	0.48***		
Marginalized Grps	6.08 (1.2)	1.56 (1.5)	10.57 (9.6)	6.17 (1.3)	1.47 (1.5)	10.01 (9.7)	0.45***	0.39***		
Perp	2.99 (2.0)	-1.45 (2.0)	-1.64 (8.2)	2.86 (2.0)	-1.76 (1.9)	-2.44 (7.5)	0.02	0.01		
Trad	4.97 (1.6)	0.11 (1.9)	2.49 (9.9)	5.25 (1.5)	0.19 (1.8)	2.60 (9.9)	0.17	0.11		
Descriptive Normative Beliefs	Belief Strength (dnb_i)	Identification with Referent (iwr_i)	(dnb_i x iwr_i)	Belief Strength (dnb_i)	Identification with Referent (iwr_i)	(dnb_i x iwr_i)	Correlation of dnb_i x iwr_i with Descriptive Norms			
							BIPOC	White		
Greek Life	4.00 (1.8)	-1.02 (1.9)	-1.67 (8.3)	3.98 (1.9)	-0.70 (2.0)	0.09 (8.8)	0.16	0.20**		
Friend	5.74 (1.3)	1.43 (1.5)	9.16 (9.5)	5.88 (1.2)	1.65 (1.3)	10.66 (8.4)	0.20*	0.45***		
Sim Age	4.87 (1.4)	1.64 (1.4)	8.69 (7.8)	4.76 (1.4)	1.89 (1.3)	9.69 (7.0)	0.24**	0.45***		
Vict Friend	5.88 (1.4)	0.89 (1.8)	6.32 (10.9)	5.93 (1.3)	1.21 (1.6)	7.85 (10.2)	0.17	0.26***		
Perp Friend	3.08 (1.9)	-1.82 (1.7)	-3.58 (7.8)	2.77 (1.7)	-2.02 (1.6)	-3.78 (6.3)	-0.02	0.11		
Control Beliefs	Belief Strength (cb_i)	Perceived Power (pp_i)	(cb_i x pp_i)	Belief Strength (cb_i)	Perceived Power (pp_i)	(cb_i x pp_i)	Correlation of cb_i x pp_i with Capacity		Correlation of cb_i x pp_i with Autonomy	
							BIPOC	White	BIPOC	White
Unsafe	4.87 (1.6)	0.02 (1.6)	0.01 (8.3)	4.65 (1.5)	0.39 (1.5)	1.44 (7.5)	0.42***	0.39***	0.05	0.22*
Intox	3.16 (1.8)	-0.10 (1.7)	-0.01 (8.8)	3.71 (1.7)	0.27 (1.7)	1.24 (8.2)	0.12	0.11	0.02	0.02
Recognize	3.48 (1.5)	-1.25 (1.7)	-4.09 (7.2)	3.57 (1.5)	-1.36 (1.6)	-4.82 (6.5)	0.21*	0.12	0.07	0.06
Deal Perp	4.09 (1.8)	0.05 (1.5)	0.53 (7.2)	3.72 (1.6)	0.49 (1.5)	1.47 (6.8)	0.33***	0.28***	0.22**	0.25***
Peer Supp	5.25 (1.4)	1.96 (1.1)	10.91 (6.7)	5.31 (1.3)	2.12 (1.0)	11.73 (6.8)	0.30**	0.49***	0.31***	0.43***

Notes: $P<.05$*; $P<.01$**; $P<.001$*** ; PBC (Perceived Behavioral Control)

All Belief Strength scales (bb, inb, dbd, cb) ranged from 1 to 7; All Value-Laden scales (oe, mtc, iwr, pp) ranged from -3 to +3.

*Key for understanding Beliefs:

Behavioral Beliefs

Escalate - Preventing the situation from escalating.

Proud - Making me proud to help others.

Educate - Educating others through example.

Fail - Helping to stop the sexual harassment.

Environment - Creating a safe environment.

Confront - Might result in a confrontation.

Injunctive Normative Beliefs

Fam - My family members.

Friend - My close friends.

Vict - Survivors of sexual harassment.

Table 5. Continued.

Marginalized Grps - Individuals of marginalized communities.
Perp - Perpetrators of sexual harassment.
Trad - People subscribing to traditional gender roles.
Descriptive Normative Beliefs
Greek Life - Students in Greek life.
Friend - My close friends.
Sim Age - Young adults my age.
Vict Friend - Victims or friends of victims of sexual harassment.
Perp Friend - Friends of the perpetrator of sexual harassment.
Control Beliefs
Unsafe - The situation will be unsafe.
Intox - I will be intoxicated.
Recognize - I will not recognize sexual harassment.
Deal Perp - I will not want to deal with the perpetrator.
Peer Supp - I will have support of my peers.

Although racial parity is increasing at four-year institutions in the US, 42% of undergraduate students are White as of 2022,[37] samples of college students at PWIs are largely white, non-Hispanic. Due to the under enrollment of racial and ethnically diverse groups in this study, we were not able to compare groups accordingly, and instead were only able to compare white students and an aggregated group of students of color (BIPOC). Given this limitation, this study should be looked upon as preliminary, with future studies making a deliberate attempt to recruit racial and ethnically diverse groups.

Another limitation was that our results are based on understanding what forms college students intentions only, and not actual behavior. Therefore, the implications and recommendations we make in this article can only be made towards changing or reinforcing behavioral intentions, which do not always translate to behavior change. It would have been ideal to additionally measure behavior in this study, however BI behaviors are difficult to measure in cross-sectional studies because they are *conditional behaviors*. That is, students would only engage in the behavior if they were confronted with the seeing someone sexually harassed. Therefore, many studies of this nature rely on intentions as a proxy for behavior.[23-24]

Another limitations is that our sample was based on a convenience sample of undergraduate college students and was not based on random sampling which contributes to selection bias. Additionally, while the BIPOC group met the threshold of the initial power analysis, it may have been underpowered for some of the additional analysis performed in this study. Thus, the overall power of the group was limited and findings from this study may be viewed as exploratory and hypothesis generating.

Another limitation was the racial descriptions of the victim and perpetrator were not specified in the description of the behavior, making it difficult to discern if race would play an additional role the bystander intervention process. For example, are there differences between white and BIPOC students if the victim is white or BIPOC? And is there an interaction effect if the perpetrator is white or BIPOC in the same scenario? These research questions would be ideal for future investigation. For example, items such as "I intend to intervene if I see a white man sexually harassing a white woman" and "I intend to intervene if I see a non-white man sexually harassing a white woman" can start to help determine gender and racial effects of bystander interventions for various situations.

Finally, the description of sexual harassment provided to participants was broad with several different examples, which may have reduced the utility of the models to predict BI intentions in both models. People may react to observing different forms of sexual harassment differently, and therefore, specific situations involving sexual harassment may need to be examined individually instead of sexual harassment as one concept.

Conclusion

More diverse samples, potentially from universities with the designation of MSI, will likely shed more light on specific differences in antecedents to BI among racial or ethnic groups (e.g., Hispanic, Black, Asian/Pacific Islander). Investigating differences in BI antecedents between schools that are PWI and MSI may help explain the effect of the learning environment in which students live and socialize on BI antecedents and intentions. Because of the particularly pernicious impact of sexual harassment on racial minorities, research into the role of the learning environment on BI and sexual harassment is needed.

Future research into BI should include BI behavior as the outcome instead of intention to understand this preventive health behavior more accurately. It would also be important to examine the intersections of racial identity of the victim, perpetrator, and bystander,[14] and the studies

that exist focus mostly on the race of the victim or the race of the bystander. The lack of information regarding the race of the parties involved provides an opportunity to further explore how racial identity can impact BI training and in real-life situations.

Authors' Contribution

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Competing Interests

All authors confirm that our manuscript has not been previously published and is not currently under consideration by any other journal. All named authors have no conflict of interest to disclose, financial or otherwise.

Ethical Approval

All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. All research activities were approved by the sponsoring Institutional Review Board.

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