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Educating College Students about Dating Violence Bystander Behaviors: Evaluating an Innovative Animated Intervention

Micah Herman[1] & Karen M. O'Brien[2]
[1]University at Albany
[2]University of Maryland, College Park

Due to the extensively social nature of college campuses, peer intervention is a valuable tool for the reduction of college dating violence. While bystander training programs are becoming a common tool for addressing student welfare concerns on college campuses, there is little research evaluating the efficacy of these interventions. The purposes of this study were to revise an online bystander intervention program (*STOP Dating Violence*; O'Brien et al., 2021) and conduct a randomized controlled trial to test the effectiveness of this revised intervention. Specifically, the intervention was modified and converted into an engaging animated video and then tested for its effectiveness. College students (N=335) were randomly assigned to one of three conditions: (1) the STOP intervention, (2) a website containing information about dating violence, and (3) a control condition. Students who viewed the *STOP Dating Violence* video intervention had the greatest knowledge of bystander interventions when compared to the website and control conditions. Thus, the *STOP Dating Violence* video has potential to successfully educate undergraduates about appropriate bystander interventions for dating violence in a cost-effective manner.

Keywords: dating violence, college students, online intervention, bystander

Dating violence, or the threat or presence of physical, emotional, sexual, financial, or cyber abuse in a romantic relationship, affects college students at distressing rates, with between 10% and 50% experiencing at least one form of dating violence (Kaukinen, 2014). Such violence puts those who experience dating violence at high risk for substance abuse, suicidality, risky sexual behavior, and eating disorders (Rakovec-Felser, 2014). Researchers pointed to the primacy of peers, substance use, limited relationship experience, being away from home, and the ubiquity of social media as significant in the perpetuation of dating violence on college campuses (Duval et al., 2020; Libertin, 2017). To reduce dating violence on college campuses, bystander intervention programs have been developed to teach students how to identify dating violence and intervene effectively (Banyard et al., 2007; Moynihan & Banyard, 2008). The purposes of this study were to revise an online bystander intervention educational program (*STOP Dating Violence*; O'Brien et al., 2021) and to conduct a randomized controlled trial to test the effectiveness of the revised intervention. Specifically, the *STOP Dating Violence* intervention was converted into an engaging animated video format and then tested for its effectiveness. Ultimately, this intervention could reduce rates of dating violence on college campuses.

Theoretical Framework

The Model of Bystander Behavior (Latane & Darley, 1970) provides the theoretical foundation for this study. A bystander is defined as any person who witnesses or learns of an incident of dating violence. Bystander behavior is engagement in actions to stop a given behavior. The individual and cultural impact of bystander behaviors is understood by sociologists as a kind of feedback loop in which individual people are shaped by the way that they participate in social systems, which in turn shapes the systems themselves (Katz et al., 2011). Bystander behaviors are spread through college student's social networks, ultimately resulting in community-level changes in social norms (Coker et al., 2015). Moreover, when bystander behaviors are not performed, bystanders implicitly reinforce abusive behavior (Katz et al., 2011).

The Model of Bystander Behavior (Latane & Darley, 1970) described the contingencies that are required for bystanders to become involved: bystanders must be aware of the problematic situation, perceive it as an emergency, decide that they have a responsibility to take action, and determine what help they are able to provide. Also, multiple psychological processes may impede bystander interventions, such as diffusion of responsibility (i.e., bystanders believing that others will bear the responsibility for intervention), evaluation apprehension (i.e., bystanders worrying about acting in ways that may harm their reputation in the eyes of other bystanders like offering to help a victim and having the victim's boyfriend be angry or think poorly of the bystander), and pluralistic ignorance (i.e., bystanders believing that dating violence situations are not emergencies based on the inaction of

other bystanders who are witnessing the abusive interaction; Latane & Darley, 1970). Theory suggests that bystanders are more likely to report engaging in bystander behaviors if they feel a greater sense of responsibility and self-efficacy, and believe that the benefits of intervening outweigh the costs (Jouriles et al., 2016).

Another relevant theoretical consideration is the ecological model of bystander intervention (Banyard, 2011), which seeks to expand upon Latane and Darley's model by considering community-level variables. This model emphasizes the importance of macrolevel factors in promoting change among individuals, highlighting the importance of interventions that are easily widely disseminated for the promotion of increased engagement in bystander intervention against dating violence on college campuses.

Bystander Interventions to Reduce Dating Violence on College Campuses

Bystander intervention for dating violence evolved from the development of bystander intervention tools for sexual violence. The bystander approach was first applied to the prevention of campus violence in the mid-1990s (Katz, 1994). Researchers pointed to community norms as playing a significant role in the perpetuation of violence, especially on college campuses (DeKeseredy et al., 2018). A large-scale shift in cultural and social norms was needed, requiring actions (e.g., bystander interventions) from the campus community (Banyard, 2003).

Bystander intervention educational programs are relatively new in the field of dating violence prevention, but their outcomes are encouraging. However, these programs are few in number and inconsistent in terms of their potential reach and cost-efficiency (Shorey et al., 2012). Most of the programs designed for college campuses are in-person interventions focused on preventing sexual assault rather than dating violence. Researchers tested the efficacy of bystander intervention programs and noted significant limitations. For example, *Project PEACE*, which is an in-person intervention for college students, had mixed findings (Jaffe et al., 2017). A study examining the *Men's Project*, an educational program for college men, found that when men had a support group, they were able to use bystander strategies while challenging their sexist environment (Barone et al., 2007). However, this program was limited by its focus on male students. A program by Moynihan and Banyard (2008) that targeted campus Greeks and athletes, the populations with the highest rates of sexual violence on college campuses, successfully improved scores from pretest to posttest on six relevant outcome variables. Also, a program called *Bringing in the Bystander* increased the likelihood of helping, confidence in bystander behaviors, and taking responsibility for ending college dating violence among sorority women (Moynihan et al., 2011). These programs were limited by high costs, small sample sizes, and circumscribed target populations, suggesting the need for the development of effective online interventions.

Online interventions are beneficial for college students because they are accessible to (and convenient for) large numbers of students at low cost (O'Brien et al., 2021). In addition, online interventions have been shown to be effective in educating college students on a variety of topics (e.g., sexual assault; Devine, 2018, substance use; Barry et al., 2016, responding to bereaved peers; Hill & O'Brien, 2021). Online bystander training programs focused on reducing dating violence also show considerable promise (Hines & Palm Reed, 2017). An intervention called *Friends Helping Friends* increased participants' perceived responsibility to help, skills to act as a bystander, and intention to help when compared to a control group (Amar et al., 2015). However, this study was limited in its generalizability because it was only tested with female students and non-random group assignments.

A promising online intervention that was effective in educating college students about dating violence and appropriate bystander behaviors was the *STOP Dating Violence* program (O'Brien et al., 2021). Originally, the 3-component intervention was in the format of a Prezi slideshow, which is now a less recent medium for disseminating information to college students. The first component, "Education about Warning Signs of Dating Violence," taught college students to recognize the warning signs of dating violence, including psychological and physical abuse (O'Brien et al., 2021). It was consistent with the first two steps in Latane and Darley's (1970) Model of Bystander Behavior, which indicates that becoming aware of a problematic situation and perceiving the situation as an emergency are the first steps to intervention. The use of risk recognition as a tool in interventions against sexual assault and domestic violence was well-established, but rarely applied to programs focused on dating violence (O'Brien et al., 2021). Survivors of dating violence were not as likely to

recognize danger in domestic violence vignettes as participants who had not experienced such violence (Witte & Kendra, 2010). The inability of those who experience dating violence to recognize risk supports the need for increased bystander intervention training efforts.

The second component, "Education Intended to Eradicate Psychological Barriers to Helping," educated bystanders about impediments to action according to Latane and Darley's (1970) model: diffusion of responsibility, evaluation apprehension, and pluralistic ignorance. The third and final component, "Education Regarding Desired Bystander Behaviors," provided bystanders with a series of actions that they can use to assist those who experience dating violence. This component addressed recommendations to emphasize the role of bystanders in reducing dating violence (Shorey et al., 2012). Research on dating violence and sexual assault prevention identified bystander education that teaches students to proactively interfere when they witness potentially harmful or controlling behaviors as key to prevention of abusive behaviors (Banyard, 2011).

Current Study and Hypothesis

The purposes of this study were to revise the *STOP Dating Violence* bystander intervention program (O'Brien et al., 2021) and conduct a randomized controlled trial to test the effectiveness of this revised intervention. After the intervention was updated and converted from a Prezi to a video format, this study assessed the effectiveness of the updated intervention by evaluating the degree to which individuals exposed to the intervention learned desired bystander behaviors when compared to those who did not receive the video intervention. One group of participants that did not view the video intervention looked at a website containing information about intimate partner violence to simulate self-directed information-seeking, while another group completed an unrelated filler task. We hypothesized that participants exposed to the video intervention would have more knowledge about bystander interventions when compared to students who viewed related information on a website and individuals in a no-intervention control group.

Method

Participants

An *a priori* statistical analysis was calculated using the G*POWER v3 software (Faul et al., 2007) to determine the number of participants needed to achieve statistical power of 0.95, a medium effect size (f = 0.25), with an overall α = 0.05 for a regression. All assumptions for an ordinary least squares regression were met. The results suggested that a total sample size of 204 participants was needed.

Initially, 456 undergraduate students accessed the online survey via Qualtrics; 449 students met inclusion criteria (e.g., proficiency in English, between 18 and 24 years old, and enrolled at our large mid-eastern university), and provided informed consent. Participants who did not complete at least 85% of the items were removed from the sample (42 individuals, n = 407). Then, the 72 participants who failed to provide the correct responses to two validity check items (i.e., *"Please select 'strongly disagree' for this item"* and *"Please select 'strongly agree' for this item"*) were not included in the sample, resulting in a total of 335 valid responses. There were 122 participants in the control condition, 120 in the intervention condition, and 93 in the website condition (see Figure 1). There were fewer valid responses in the website group as a number of participants in that condition failed to complete at least 85% of the items, perhaps due to the length of the time (10 minutes) that they were asked to review the website.

The average age of the participants was 19.43 (SD = 1.13), and the majority identified as women (73.1%) and straight (89.9%). Most were single (63%), and had not experienced dating abuse (77%) or violence in their families of origin (83.3%). Students were enrolled in a wide range of college majors with the top three being Psychology (35.8%), Information Sciences (15.5%), and Biology-related (10.7%). Additional demographic information can be found in Table 1.

Procedure

After receiving approval from the University Institutional Review Board, participants were recruited through the Department of Psychology subject pool (consisting of students from across the university who were enrolled in an introductory psychology course), flyers, and social media, where they received a link to a Qualtrics survey. Students who accessed the survey, met the inclusion criteria, and provided consent were invited to complete a demographic questionnaire and then a pretest survey assessing their knowledge about appropriate bystander interventions. Participants then were randomly assigned to one of three conditions. The intervention group watched the 7-minute *STOP Dating Violence* video intervention. The web

site group scrolled through loveisrespect.org, a website containing information about dating violence including warning signs of abuse in an intimate relationship and steps for supporting friends and peers who may be experiencing intimate partner violence for 10 minutes. The control group was asked to complete filler tasks (i.e., write an essay about your favorite college course). Participants in the intervention group were unable to move past the page containing the video until seven minutes had elapsed, and those in the website group were unable to move past the website page until 10 minutes had elapsed. Then, participants in every condition completed a posttest survey made up of the same items as the pretest survey. All participants were provided with information about two domestic violence hotlines and their campus counseling center upon completion of the study. The procedural pathways for participants in each condition are provided in Figure 2. Students received one research credit toward a psychology course requirement for completing the survey.

STOP Dating Violence **Intervention**

The *STOP Dating Violence* intervention was created to educate college students about recognizing dating violence and intervening in situations of dating violence (O'Brien et al., 2021). As described previously, the intervention has three components, the first and third of which were adapted to create the *STOP Dating Violence* animated video intervention. The modifications made to the *STOP Dating Violence* intervention can be conceptualized through the FRAME model, which systematizes the modifications by considering who is involved in the process, what is modified, the level of delivery and context in which modifications are made, and the nature of the content modification (Stirman et al., 2013). The modifications were made by a team of two researchers, one of whom led the development of the original *STOP Dating Violence* intervention. The content and context of the intervention was modified through the conversion from Prezi to animated video, simplifying and modernizing the format for participants engaging with the intervention.

The second component was not included in the video to shorten the length of the intervention and to focus on the effectiveness of education about warning signs of dating violence and bystander behaviors. For this study, the presentation first was modified to shorten the content to maximize participant engagement. Specifically, multiple-choice questions were removed from the first component and presented as open-ended questions that were answered by the narrator. For example, the narrator posed the following: *"Now that we have described dating violence, we want you to imagine your best friend has been dating someone for three months. What are some "red flags" or warning signs of dating violence that you might notice?"* After a brief pause, several common red flags were described by the narrator.

Consistent with the original intervention, information was delivered in a brief lecture format and then applied to vignettes in which dating violence occurred in typical college settings (e.g,, in a residence hall, in a shared apartment, and at the campus gym) so that students saw how the bystander behaviors could be used in real-life situations. The vignettes were created by a team of researchers (comprised of professors and graduate students in psychology, several of whom had experience working in shelters for abused women and their children) and were informed by the dating violence literature to depict different dimensions of dating violence occurring among a diverse sample of people (O'Brien et al., 2021). The team conducted a thorough literature review about dating violence, bystander interventions, and the best practices for online interventions before writing and editing the scripts. Important information was repeated, and time was provided for participants to think and respond to narrator questions about the *STOP* steps. *For example, in the video intervention, the narrator says the following:*

> *"OK, over the last month you noticed that one of your close friends has stopped coming to pick-up basketball games on Friday nights. When you see him at the gym, you ask why he hasn't been around. He says that he's really busy – and that his girlfriend wants him to spend all of his time with her. He tells you that he tried to break up with her but she threatened to kill herself. He feels stuck but he would feel really guilty if something bad happened to her. How might you respond to this situation?"*

At this point, there is a pause in the video. Then, the narrator applies each step of the STOP model to this vignette.

For this study, a video was created using online animation software (Vyond), the modified script and voiceover recording. The characters shown in the vignettes were of diverse ethnic backgrounds and represented a range of sexualities and dating preferences. The video intervention can be found at go.umd.edu/DatingViolence

WarningSignsandgo.umd.edu/DatingViolenceHowToHelp).

Measures

Knowledge regarding appropriate interventions

Eight items from the Knowledge of Appropriate Bystander Interventions scale (O'Brien et al., 2021) were used to measure knowledge regarding appropriate bystander behaviors outlined in the *STOP Dating Violence* intervention. Responses were provided on a 6-point Likert scale ranging from 1 (*strongly disagree*) to 6 (*strongly agree*), e.g., "It's important to help in a dating violence situation even if it means that I might be in danger." Items 1, 2, 3 and 6, which were incorrect statements about appropriate bystander interventions, were reverse scored and the responses were summed to create an index of knowledge about recommended bystander intervention practices from the *STOP Dating Violence* intervention. High scores indicated greater knowledge about general bystander behaviors and those emphasized in the *STOP* intervention. In prior research, the reliability of the 8-item measure was not calculated because the items assessed different dimensions of knowledge and were not expected to correlate. Support for validity was found in a prior study as students who completed the *STOP Dating Violence* intervention scored the highest on this measure (O'Brien et al., 2021).

Demographics

Participants also responded to items assessing gender, age, sexual orientation, major, relationship status, the length of their relationship, and whether they experienced violence in their families or relationship abuse.

Analyses

Responses that did not meet the inclusion criteria (n = 6), did not pass the validity checks (n = 72), and did not complete at least 85% of the items (n = 42) were removed before data analysis. The means, standard deviations, and ranges for the pre and posttest scores on the Knowledge of Appropriate Bystander Interventions scale were calculated and are provided in Table 2. An ordinary least squares regression was used to test the hypothesis by examining differences in scores on the measure of knowledge about appropriate bystander interventions at posttest across conditions. The main explanatory variable was the experimental condition, with pretest score as a linear control. The model included the interaction of condition with pretest score; posttest score was the dependent variable. An alpha level of .05 was used to test for significance.

Significant differences were found among conditions for scores on the measure assessing knowledge of appropriate bystander interventions (R^2=.522, F (5, 332) = 71.904, p <.01, partial η^2 = .319). Bonferroni-adjusted pairwise comparisons indicated that the intervention condition had a higher mean than those in the website group (by 1.92 points, 95% CI [1.00, 2.83]) and the control group (by 4.82 points, 95% CI [3.97, 5.67]), and that the website group had a higher mean compared to the control group (by 2.90 points, 95% CI [1.99, 3.81]). All comparisons were significant at p < .001. To summarize, students in the intervention condition had the most knowledge regarding appropriate bystander interventions at posttest.

Discussion

Findings from this study suggested that the updated *STOP Dating Violence* video intervention was effective in educating undergraduate students about appropriate bystander interventions. Participants who viewed the *STOP Dating Violence* video intervention had the greatest knowledge of appropriate bystander interventions at posttest when compared to participants who were in the control and website conditions. This finding is important because it indicates that the video intervention effectively aids college students in learning about desired bystander behaviors in dating violence situations. Moreover, this finding represents an important first step in the future process of changing campus cultures. If students can be educated about warning signs of dating violence and how to intervene when it occurs, the potential exists for them to disseminate this knowledge and these behaviors through social networks, thus contributing to community-wide changes in social norms (Coker et al., 2014).

Additionally, a large portion of data collection took place during campus closures due to COVID-19. The success of the intervention during this time demonstrated that educational videos may be valuable tools for sharing information regardless of student and campus location. Should these findings be replicated, the *STOP Dating Violence* video intervention may serve as a low-cost and effective educational tool to reduce rates of dating violence on college campuses.

Limitations

There are several important limitations of this study. First, the sample was predominantly comprised of straight women, perhaps because a significant por

tion of participants were recruited through the Department of Psychology study pool which contains more women than men. It is important to ensure that the intervention works well for all genders and sexualities. While the intervention utilized inclusive language and provided examples of many different kinds of relationships, it is necessary to assess its effectiveness for a broader population to ensure that the results are generalizable.

Additionally, no constructs were assessed besides knowledge of appropriate bystander interventions. Constructs like intention to intervene or self-efficacy may be important in gauging the effectiveness of the intervention, as knowledge alone may not be enough of a catalyst for bystander action. Other facets of participant perspectives could play valuable roles in determining the effectiveness of the measure including general knowledge of dating violence, core beliefs about gender and sexuality, susceptibility to social desirability, and life experience.

It also is important to note that participants in the intervention group were asked to think about how to apply what they learned about appropriate bystander behaviors to vignettes presented in the intervention video, while participants in the website group were not asked to reflect on what they learned. It is possible that inviting the participants to apply the *STOP* model to hypothetical situations contributed to the retention of the information. Thus, some variability in knowledge scores across groups could have occurred because of the lack of opportunities to apply the *STOP* model in the website condition.

Another limitation of this study was that participant knowledge was assessed about bystander interventions in generalized dating violence situations rather than in specific circumstances. The vignettes provided in the video were specific and nuanced, and it would be valuable to assess how participants would apply their knowledge to different forms of dating violence and the complexities associated with specific situations (e.g., monitoring a partner who had cheated on them previously). Similarly, we did not include a measure of participant engagement; future research should assess the degree to which participants were engaged in the shortened video version when compared to the longer Prezi presentation.

Finally, increased knowledge about dating violence and desired bystander interventions may not result in actual bystander behaviors in real-life settings. Numerous factors including social pressure, substance use, or other variables may impact motivation to intervene in dating violence situations. Relatedly, psychological processes that impede engagement in bystander behaviors were not explicitly addressed by the intervention. Inclusion of these factors could encourage college students to challenge thoughts that limit involvement and engage more fully in bystander actions.

Future Research Directions

Research is needed to further evaluate whether the *STOP Dating Violence* video intervention is more effective than the original Prezi presentation. Additionally, it is important to assess whether knowledge gained from bystander training interventions, including the *STOP Dating Violence* video intervention, translates into actual bystander behaviors in real-life dating violence situations. Conducting this research is challenging because it requires students to have witnessed dating violence. In addition, students may not be aware that what they have witnessed or heard about was dating violence, or they may be unable to remember exactly what occurred. A promising mechanism for evaluating bystander behaviors in real-life dating violence situations is the use of diary collection methods which involve repeated participant self-reports for a specified amount of time. Such methodology would enable participants to immediately log their experiences of any encountered dating violence onto their phones or computers, allowing for more accurate recall of the event and their reactions to incidents of dating violence.

A similarly challenging but important future direction is to examine the barriers and facilitators associated with bystander behaviors in real dating violence situations. Many factors ranging from social norms to core values could play a role in making it easier or more challenging to intervene. Information about salient barriers and facilitators could be collected in conjunction with self-reports about bystander behaviors in real-life dating violence situations. After participants report having seen dating violence and the actions that they took, they could then respond to measures asking them about what factors facilitated and hindered intervention. These factors must be studied so that researchers can develop educational programming focused on the most important factors that impact the decisions of college student bystanders.

Another important future direction is to see whether participation in this intervention affects

students' ability to recognize dating violence in their relationships and to leave an abusive relationship. An ideal and most effective intervention would allow students to recognize dating violence in their lives as well as in the lives of their peers.

Finally, it is important that future interventions address how the nuances of specific situations may change bystander perceptions of dating violence and plans to intervene or engage in helpful bystander behaviors. Real-life situations of dating violence are likely to be complex and confusing for bystanders who are considering taking action. To counteract blaming those who experienced dating violence and lacked bystander confidence as a result of contextual nuance, interventions should emphasize that the behaviors described as dating violence call for responsible bystander action under all circumstances.

Conclusion

To conclude, dating violence is a common and harmful occurrence on college campuses. College students are often unsure how to provide assistance to peers experiencing dating violence. The *STOP Dating Violence* video intervention may serve as a cost-effective, engaging, and informative educational tool that teaches students how to recognize and respond to dating violence. It is our hope that this research will contribute to efforts to increase bystander behaviors, ultimately resulting in reduced incidents of dating violence on college campuses.

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Table 1

Demographics (n = 335)

Variable	**Total %**	***(n)***
Age (years)		
18	20%	67
19	37%	124
20	25.7%	86
21	11%	37
22	.02%	7
23	.01%	5
24	.003%	1
Gender		
Female	73.1%	245
Male	26.6%	89
Non-binary	.3%	1
Sexual Orientation		
Straight	89.9%	301
Lesbian/Gay	1.5%	5
Bisexual/Pansexual	8.1%	27
Other	.6%	2
Relationship Status		
Single	63%	211
In a dating relationship	34.9%	117
Married	.3%	1
Unsure	1.8%	6

Experienced Violence in their Families (Y/N)		
Yes	11.9%	40
No	83.3%	279
Unsure	4.8%	16
Experienced Relationship Abuse (Y/N)		
Yes	15.8%	53
No	77%	258
Unsure	7.2%	24
Major		
Information Sciences	13.4%	45
Biology-related	10.1%	34
Communications	1.2%	4
Public health-related	6.2%	21
Nursing	1.2%	4
Psychology	23.3%	78
Multiple Majors	14.6%	49
Kinesiology	4.2%	14
Computer Science	2.1%	7
Criminal Justice and Criminology	1.5%	5
Journalism	1.5%	5
English	0.1%	3
Business	3%	10
Education-related	1.5%	5
Economics	1.5%	5
Family Science	.1%	3
Undecided	6%	20
Other	6.6%	22

Table 2

Means, Standard Deviations, Ranges, and Correlations Among the Measures

Measures	1	2
1. Knowledge, pre	1	
2. Knowledge, post	.47*	1
Mean	31.57	34.42
Standard Deviation	3.36	4.51
Actual Range	22-42	23-48
Possible Range	17-68	17-68

Note. *Correlation is significant at the .01 level.

Figure 1

Participant Assignment to Conditions

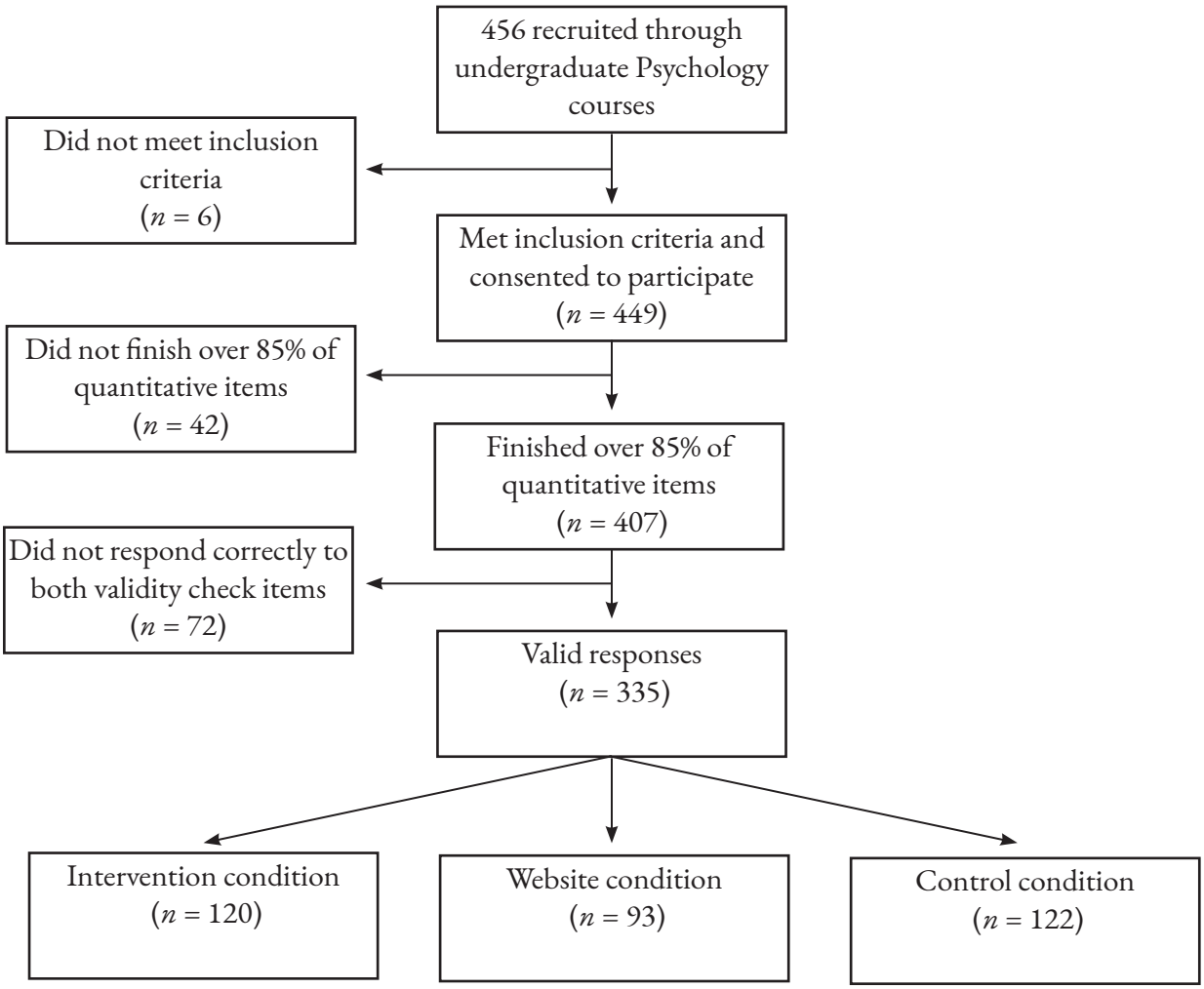

Figure 2

Procedural Pathways