



Blocking and Self-Silencing: Undergraduate Students' Cyberbullying Victimization and Coping Strategies

Virginia L. Byrne¹

Accepted: 5 November 2020 / Published online: 14 November 2020
© Association for Educational Communications & Technology 2020

Abstract

Cyberbullying is an emerging equity issue in American higher education with well-documented social, psychological, and academic consequences. Unfortunately, while higher education leaders are grappling with how to respond to cyberbullying victimization among students, their efforts are hindered by the lack of consensus on how to measure victimization or what support strategies to provide. The purpose of this paper is to explore the cyberbullying experiences of a diverse sample of undergraduate students. Using a validated measure of victimization among a sample of 459 undergraduates at a research university in the American Mid-Atlantic, nearly three out of five respondents reported having been previously victimized by a cyberbully. While universities have a duty to support victims and provide a learning environment free from harassment, this study found that students do not turn to their campus faculty and staff for support. Instead college student victims adopt technical coping strategies (e.g., block the bully, adjust privacy settings) which may further isolate them from their online communities and entrusts social media companies to resolve the situation. Contributions poses the connection between coping strategies and self-censoring in online courses.

Keywords College students · Coping strategies · Cyberbullying · Higher education · Social media

Introduction

The research on cyberbullying began with an emphasis on middle- and high-school students and noted the significant impact of victimization on the psychological and learning experiences of adolescents (Kowalski et al. 2014; Tokunaga 2010). However, studies are expanding into higher education as researchers realize online bullying and harassment does not stop at high school graduation (e.g., Francisco et al. 2015; Washington 2015). Cyberbullying is prevalent on college campuses and can contribute to academic and social setbacks for adult victims (e.g., Cowie and Myers 2015). Considering the severity of the psychosocial and academic consequences of cyberbullying victimization (e.g., stress, depression, social withdrawal, academic setbacks; Juvonen and Gross 2008; Tokunaga 2010; Varjas et al. 2009), higher education legal experts recommend that campus leaders better understand this

phenomenon to develop policies and procedures that support victims (e.g., DuMont 2016).

Unfortunately, while higher education leaders are grappling with how to respond to cyberbullying among students, their efforts are hindered by the lack of consensus on how to measure victimization (e.g., Lai and Kao 2018; Jenaro et al. 2018; Kowalski et al. 2014) or what support strategies to provide (e.g., Cowie and Myers 2015). The purpose of this paper is to explore the cyberbullying experiences of a diverse sample of undergraduate students to answer the questions: *To what extent do college students experience cyberbullying victimization?* and *What are the most common coping strategies undergraduate adopt in response to cyberbullying victimization?* Findings shed light on the scope of cyberbullying in college and have implications for higher education and student affairs professionals who aim to support victims in adopting healthy coping behaviors.

✉ Virginia L. Byrne
virginia.byrne@morgan.edu

¹ Department of Advanced Studies, Policy, and Leadership, School of Education and Urban Studies, Morgan State University, Baltimore, MD, USA

Literature

Theoretical Framework

This study is framed by Chickering and Reisser's theory of college student identity development (1993) and situated

within emerging adult research (e.g., Alipan et al. 2018, 2019; Doane et al. 2013; Lindsay et al. 2016). Traditionally aged college students (i.e., between 18 and 25 years old) engage in an identity development process in which they iteratively develop emotional maturity, a sense of identity, and healthy emotional interdependence (Arnett 2000). During this process, students struggle with feeling anxiety and shame, crave peer acceptance, and have an unstable level of self-esteem. To be seen as adults, emerging adults often avoid situations in which they feel vulnerable and reject affiliations with adolescence (Arnett 2000). This confluence of social anxiety and the desire to avoid looking weak can result in the development of unhealthy and antisocial coping strategies. This paper explores college students' experiences with and responses to cyberbullying victimization in light of their developmental process.

Cyberbullying in Higher Education

While often overlooked in the cyberbullying literature, victimization by online bullies is increasingly common and problematic in higher education (Myers and Cowie 2019). Cyberbullying is intentional, repeated harassment online or via text, directed at a person with less perceived social power (Patchin and Hinduja 2015). Cyberbullying victimization can result in psychosocial issues such as social anxiety (Juvonen and Gross 2008), withdrawing from school, depression, anxiety, paranoia, and suicide (Adams and Lawrence 2011; Holt et al. 2014). Victimization can hinder students' equitable participation in academic life because they do not feel safe with their peers. For example, 14% of cyberbullied undergraduates sampled by Faucher et al. (2014) reported that they felt like dropping out of college as a result of being a victim.

The negative mental health consequences of victimization were spotlighted in 2010 when Rutgers undergraduate Tyler Clementi committed suicide after being cyberbullied by his roommate who streamed private, sexually-explicit videos to other students in their residence hall as a way to shame him for having same-sex relationships (Schenk et al. 2013). In doing so, Tyler's roommate violated his privacy and safety, and appropriated control of Tyler's image without his consent. This tragic example demonstrated an instance of repeated, intentionally hurtful cyberbullying targeting Tyler because of his sexual orientation and the socially constructed power imbalance between LGBTQ and heterosexual students.

A common misconception about cyberbullying is that victims can prevent or stop bullying by avoiding certain social media platforms (e.g., Alipan et al. 2018). For today's undergraduates, however, social media and group texting apps (e.g., WhatsApp, GroupMe, Slack) are instrumental in social, academic, and professional networking. The importance of online communities as a modern public square and student union make engagement necessary for social and civic participation

(e.g., Alipan et al. 2018; boyd 2010). In response, college students – particularly college women - normalize online bullying as an inevitability of online life (Chadha et al. 2020). In response to the pervasive nature of cyberbullying, undergraduates reportedly adopt self-censoring and defensive coping strategies (Duggan 2017), while maintaining a sense of vigilance about their online safety. These self-censoring strategies are particularly apparent among women (Chadha et al. 2020) who are increasingly navigating online gender power issues, unwanted sexual advances, and revenge porn (Citron 2014; Jane 2014; Lindsay et al. 2016; O'Connor et al. 2018; Selkie et al. 2015; Vitak et al. 2017).

Coping with Victimization

This paper builds on Alipan et al.'s (2018) qualitative thematic analysis by examining the prevalence of their three-category model of how emerging adults cope with cyberbullying victimization. The authors posed that emerging adults differ from children and youth in how they cope with cyberbullying. After conducting six focus groups with 39 Australian undergraduate emerging adults, the authors found that coping strategies fall into three categories: Problem-focused, Emotion-focused, and Cyber-Specific Technological coping. Problem-focused coping is when students address the conflict by reaching out to the bully, using humor or laughing it off to deter the bully, or seeking social support from family, friends, or counselors. Emotion-focused coping occurs when students change their emotional response rather than address the situation, particularly through passive endurance of the bullying, reframing the situation as an issue with the bully, not with the victim, or using drugs, alcohol, or self-harm to avoid the situation. Cyber-specific technological coping is when students attempt to stop the cyberbullying with technical solutions such as blocking the bully on a social media site, changing their privacy settings, reporting the bullying to the platform or site moderator, avoiding going online, or deleting their social media accounts. Students reported blocking bullies as being much easier and more common than more drastic measures such as deleting their accounts and avoiding online engagements.

College students choose a coping strategy depending on the extent to which they feel a sense of control over their cyberbullying experience (Alipan et al. 2018). Problem-focused coping is related to higher perceived external control, technological coping is associated with some perception of control, and emotion-focused coping is associated with the least amount of control (Alipan et al. 2018). Victims, however, may be reluctant to adopt a problem-based strategy such as reporting the incident to a teacher or authority figure because they are unaware that the university will support them, or their university does not have the policies and procedures on how to support them (e.g., Bauman and Baldasare 2015; DuMont 2016; O'Connor et al. 2018). Instead of using university

support to cope, college students often turn to immediate technology strategies (e.g., blocking the bully), despite not knowing if or how it will impact the situation (Alipan et al. 2018).

Measuring Victimization

To design evidence-based support services for cyberbullied students, higher education professionals need an accurate and theory-informed understanding of victimization (Cowie and Myers 2015; Jenaro et al. 2018). While research exists on the scope of cyberbullying among college students, methodological and terminology choices limit our understanding (e.g., Doane et al. 2013; Jenaro et al. 2018; Kowalski et al. 2014).

First, victimization is often measured via a single-item self-reported survey asking students if they self-identify as victims (Kowalski et al. 2014), however, this method fails to consider the developmental stage of college students. Traditionally aged undergraduate students are *emerging adults* in a transitional life stage in their development from dependent adolescents to autonomous adults (Arnett 2000). Emerging adulthood is typified by developing a sense-of-self and rejecting the identities associated with adolescence (Arnett 2000). Because cyberbullying is associated with adolescence, there is reason to believe that emerging adults avoid identifying with the term and thus may under-report their victimization on single-item survey measures (e.g., MacDonald and Roberts-Pittman 2010). Therefore, the existing research may not be accurately capturing the extent of cyberbullying victimization among college students. Based on the findings of their 2014 meta-analysis, Kowalski et al. warn researchers against single-item measures of cyberbullying victimization because people are less willing to identify themselves as a victim, or because they misunderstand what the researcher identifies as cyberbullying. To attend to emerging adults' desire to distance themselves from the adolescent identity of a cyberbullying victim, researchers such as Kowalski et al. (2014) and Lai and Kao (2018) suggest that more accurate data could be collected by adopting multi-item surveys that operationalize victimization as an inventory of experiences, thereby alleviating the burden on students to understand what the term encompasses.

Second, existing survey studies of the scope of victimization have suffered from methodological issues because the scales used are either not based in the cyberbullying literature, have not been psychometrically validated, or are too long to be usable among already "survey fatigued" (Porter et al. 2004) students (Jenaro et al. 2018). To fill this gap, this study adopts the 9-item measure of cyberbullying victimization originally designed and validated by Patchin and Hinduja (2015) and validated for an undergraduate student population by Byrne (2020). Originally developed from the cyberbullying literature and iterative deployments among middle- and high-school students (Patchin and Hinduja 2015), this brief measure of victimization is a valid and reliable measure of the repeated frequency

of three latent factors of victimization: *Mean Statements & Rumors*, *Image Appropriation*, and *Threats*. Unlike other multi-item scales this survey has been psychometrically validated (Byrne 2020), comprehensively captures cyberbullying victimization both before and during college (unlike Francisco et al. 2015), and is purposefully brief to be more usable by practitioners (unlike Doane et al.'s (2013) 21-item scale). By using this validated, comprehensive, and usable survey, this study provides a clear report of the scope of cyberbullying victimization among undergraduates.

In summary, the literature has left some unanswered questions such as the extent to which college students experience different types of online victimization, how they cope, and the extent to which they report their experiences to university faculty and staff. The purpose of this study was to gather an accurate measure of the extent to which college students are cyberbullied and how they cope.

Methods

Participants

In Spring 2019, this study surveyed undergraduates enrolled at a large research university in the Mid-Atlantic who were taking a general education writing course required for all majors. In partnership with the instructors, the survey was emailed to 3520 undergraduates resulting in 630 responses (17.9% response rate). After removing partial cases, 459 complete responses were analyzed (see Table 1 for demographic information). Most students (88.7%) were either juniors or seniors. Students represented all 14 of the university's undergraduate colleges, however, some students did not respond to all the demographic questions.

Data Collection

Survey responses presented in this paper are part of a larger study of cyberbullying as it relates to undergraduates' experiences in online course discussions. In Spring 2019, all students enrolled in a required undergraduate course (offered both online and face-to-face) were contacted about a brief, voluntary online Qualtrics survey about online learning. Students were incentivized by a \$25 raffle.

Survey Instrument The survey consisted of items on cyberbullying victimization experiences and student demographic identities. The study adopted Patchin and Hinduja's (2015) nine-item cyberbullying victimization scale. After being presented with Patchin and Hinduja's definition of cyberbullying (2015), students answered the items using the frequency Likert scale: *never*, *once*, *a few times*, *several times*, and *many times*. This scale has been validated for a college

Table 1 Participant demographics

Variable	Group	N	% Sample
Gender identity	Man	144	31.4%
	Multi	1	0.2%
	Other	7	1.5%
	Woman	275	59.9%
LGBTQA	Heterosexual & cisgender	345	75.2%
	LGBTQA	54	11.8%
	Other	60	13.1%
Race/ Ethnicity	American Indian and Indigenous	0	0%
	Asian, Asian-American, or Pacific Islander	87	19.0%
	Black or African American	38	8.3%
	Latinx	35	7.6%
	Multi	44	9.6%
	Pacific Islander	2	0.4%
	Other	10	2.2%
	White	206	44.9%
Undergraduate college	Agriculture and Natural Resources	24	5.6%
	Architecture	7	1.6%
	Arts & Humanities	48	11.2%
	Behavioral & Social Sciences	93	21.8%
	Business	49	11.5%
	Computer, Natural, & Math. Sciences	74	17.3%
	Education	14	3.3%
	Engineering	66	15.5%
	Information Studies	11	2.6%
	Journalism	4	0.9%
	Public Health	30	7.0%
	Public Policy	1	0.2%
	Undecided	6	1.4%

student population (Byrne 2020) and measures the victim's experience with cyberbullying as three latent factors: victimization by *Mean Statements & Rumors* (e.g., "Someone spread rumors about me online"), victimization by *Image Appropriation* (e.g., "Someone posted a mean or hurtful picture of me online"), and victimization by *Threats* (e.g., "Someone threatened to hurt me online"). If students reported that they had experienced some type of victimization, they were asked a series of Likert, check-all, and open answer questions developed by the Pew Research Center (Anderson 2018; Duggan 2017) regarding when they experienced cyberbullying and their coping strategies.

Data Analysis

Survey data was analyzed in SPSS 24. The internal reliability of the factors was determined using Cronbach's Alpha (Raykov and Marcoulides 2011) and was found to be acceptable for all three factors: *Mean Statements & Rumors* ($\alpha=.84$), *Image Appropriation* ($\alpha=.76$), *Threats* ($\alpha=.74$). A Shapiro-

Wilk normality test provided evidence of non-normality among the three-factor scales. For this reason, robust nonparametric methods were used to determine differences between groups (Byrne 2017).

Non- Response Bias Testing Because only 17.9% of sampled students chose to respond to the survey, there is a chance of non-response bias (Byrne 2017). A nonparametric Spearman correlation test between response time and victimization responses, however, produced no evidence of a relationship between the three latent factors of victimization and date of response ($p > .05$). This lack of relationship suggests that non-response bias associated with delayed survey completion (Byrne 2017) was not apparent because early respondents did not meaningfully differ from late respondents based on victimization experiences.

Modality Bias Testing To ensure that the sampling of which students chose to respond did not bias the results, Mann-Whitney U-tests (the nonparametric version of a t-test) were

conducted to determine if students enrolled in online ($N = 155$) versus face-to-face ($N = 304$) sections of the course reported differing levels of victimization. There was no difference in mean rank victimization between students by course modality ($p > .05$). This can be interpreted to suggest that a similar proportion of previously victimized students in the online sections and the face-to-face sections chose to participate in the survey.

Findings

This section outlines the scope of cyberbullying experiences among the undergraduate students and then summarizes trends in students' coping behaviors.

Perception

As expected because of the pervasive use of cyberbullying in K-12 education (e.g., Nixon et al. 2020), most students reported that they thought cyberbullying was a "Major Problem" (252; 54.9%) or "Minor Problem" (149; 32.5%). Only 32 students (7.0%) said it was "Not a Problem."

Victimization

Overall, 58.4% of students (268) reported experiencing some form of cyberbullying victimization. Among these 268 students, 86 (32.9%) reported that their most recent experience happened within the last two years (the remaining 166 students reported that the most recent incident was over 2 years ago). Considering that most respondents were undergraduate upperclassmen, this suggests that at least a third of victims (and 18.3% of all respondents) were cyberbullied while in college.

As presented in Tables 2 and 3, students' experiences with cyberbullying spanned all experiences. *Mean Statements & Rumors* was the highest average reported type of victimization experienced by 239 out of the 459 respondents (52.1%). *Threats* was the second-highest reported type of victimization, experienced by 120 students (26.1%). Threats posted online were more commonly reported and to a higher frequency than threats sent via text message. *Image Appropriation* was the lowest reported type of victimization, experienced by 106 students (23.1%). As presented in Table 2, "Someone posted a mean or hurtful picture of me online" was much more commonly experienced than to be cyberbullied via mean videos or mean webpages. For each of the latent factors of victimization the response data was skewed because most students who did experience cyberbullying only did so *Once* or *A Few Times*.

Among men, 56.3% reported being the victim of some type of cyberbullying, the most common being *Mean Statements & Rumors* (51.4%). Similarly, among women, 57.5% reported being the victim of some type of cyberbullying, with the most common form being *Mean Statements & Rumors* (50.2%).

Among the 268 students who identified with at least one form of victimization, there are no statistically significant differences in perception of cyberbullying as a problem (i.e., Major problem, Minor problem, vs. not a problem) by students' average experiences with the three factors of victimization ($p > .05$). Students' beliefs about cyberbullying were unrelated to their cyberbullying victimization as measured by the three latent factors of victimization.

Preferred Terminology

Because there is reason to believe the college students avoid the term cyberbullying because of its association with adolescence, students who reported some form of victimization were asked whether they considered their experience to have been "cyberbullying" or "online harassment." Of the 268 victims,

Table 2 Frequencies of cyberbullying victimization items

Factor	Items	Never	Once	A few times	Several times	Many times
Mean statements & rumors	I have been cyberbullied.	291	61	91	10	6
	Someone posted mean or hurtful comments about me online.	278	76	85	15	5
	Someone spread rumors about me online.	376	43	32	7	1
Image appropriation	Someone posted a mean or hurtful video of me online.	427	17	13	1	1
	Someone created a mean or hurtful web page about me.	437	15	5	2	0
	Someone posted a mean or hurtful picture of me online.	309	71	63	11	5
	Someone pretended to be me online & acted in a way that was mean or hurtful.	368	47	36	5	3
Threats	Someone threatened to hurt me online.	370	38	38	7	6
	Someone threatened to hurt me through a cell phone text message.	416	28	8	2	5

Table 3 Descriptive statistics for victimization factors

	M	SD	SE	Min	Max	Confidence Interval	
						Lower	Upper
Mean statement victimization	1.62	0.82	0.04	1.00	5.00	1.55	1.70
Image appropriation victimization	1.15	0.40	0.02	1.00	4.25	1.12	1.19
Threat victimization	1.33	0.68	0.03	1.00	5.00	1.27	1.39

109 (40.7%) reported their experience as “online harassment,” only 48 (17.9%) referred to it as “cyberbullying,” and 99 (36.9%) said they did not consider their experience to align with either term, or they did not know. There are no statistically significant differences in students’ preferred terminology by their experiences with the three factors of victimization ($p > .05$).

Coping Strategies

The 268 students who identified with a type of victimization were asked to select all the ways they responded after their more recent victimization experience from a list of common responses generated by the Pew Research Center. Findings are presented by Alipan et al.’s (2018) three categories of coping strategy (see Table 4). The most common responses to victimization were to unfriend the bully, adjust privacy settings, and withhold from posting online.

Problem-Focused Coping Strategies Typified by actions and attitudes that deter the bully, few students reported using problem-focused coping strategies. About 20% of victims said they confronted the bully directly, a tactic that Alipan et al. (2018) found students thought often “escalates the situation” (pg. 5). Only 8.2% of students told their teacher or another school authority. Not captured in these items, are the number of students who told friends or parents. For example, one student reported that they “Told my dad.”

Emotion-Focused Coping Strategies The survey only measured one form of emotion-focused or avoidance tactic: avoidance of offline events. Nearly 8% of college student victims reported that they avoided attending face-to-face events or places as a result of cyberbullying. Students wrote in their responses, as well. Some students shared that their emotional-focused strategy was to move on, e.g., “Let it go” or “None, who cares what people say about me.” Other students shared that they did not know their bully and thus did not know how to respond, for example, “I do not know who did it, so I couldn’t do anything.” Others reported more severe reactions such as, “Stopped being friends with someone,” “Be aware of my surroundings so people don’t take random pictures of me,” or “dropped a class.”

Technical Coping Strategies Across all strategies, the most common were to block the bully, adjust privacy settings so the bully cannot see their content, or to withhold from posting online. Alipan et al. (2018) posed that these strategies are likely common because they are accomplished easily, immediately, and semi-anonymously. Students reported that they were more likely to report their bully to the website moderators (e.g., flagged it on Twitter, reported it on Facebook, informed a moderator on Reddit) than to school or law enforcement authorities. The least used technical coping strategies were to withdraw or delete their online profiles. For example, one student wrote that they chose to “deactivate almost all accounts.”

Discussion

While the field of higher education is still realizing the consequence of cyberbullying (e.g., Bauman and Baldasare 2015; DuMont 2016; O’Connor et al. 2018), this study found that, overwhelmingly, undergraduate students see cyberbullying as a problem. This study answers two questions, *To what extent do college students experience cyberbullying victimization?* and *What are the most common coping strategies undergraduate adopt in response to cyberbullying victimization?*

First, using a validated, multi-item measure of victimization, this study found that cyberbullying victimization is a pervasive issue in college. In particular, nearly a fifth of these undergraduates reported being victimized while enrolled in college – evidence that cyberbullying extends into college life. While the methodological differences between survey studies prevent direct comparison, this study found that more students reported victimization experiences than in many older, single-item studies (Jenaro et al. 2018). Possible explanations are that potentially the 9-item measure used in this study (Byrne 2020) gathered more accurate data because of its multi-item design. Or, potentially, cyberbullying is becoming more common among undergraduates and this is merely a reflection of the upward trend in victimization.

A novel contribution of this paper is the finding that the majority of undergraduate victims who responded preferred the term online harassment to describe their experience despite the literature associating their experience with

Table 4 Frequencies (N, % of 268) of victim's coping responses

Type	Responses	N	% of 268
Problem-based coping	Confronted the Person Face to Face, via Text, or Phone Call	54	20.2%
	Reported Bully or Situation to Employer, School, or Local Official	22	8.2%
	Discussed the Problem Online in Order to Draw Support for Yourself	21	7.8%
	Reported Bully or Situation to Law Enforcement	11	4.1%
Emotion-focused coping	Stopped Attending Certain Offline Events or Places	20	7.5%
Technical coping	Unfriended or Blocked the Person	148	55.2%
	Set up or Adjusted Privacy Settings	118	44.0%
	Chose Not to Post Something Online	91	34.0%
	Confronted the Person Online	70	26.1%
	Changed Any Information on Your Online Profiles	64	23.9%
	Reported Bully or Situation to Website or Online Service	59	22.0%
	Stopped Using a Certain Online Service	54	20.2%
	Withdrew from an Online Forum	42	15.7%
	Changed My Username or Deleted Your Profile	38	14.2%

cyberbullying (e.g., Patchin and Hinduja 2015). Through the lens of emerging adulthood, this rejection of the term cyberbullying makes sense. As emerging adults, students seek to distance themselves from adolescent concepts and identities, and instead align themselves with more adult terminology (Arnett 2000). In this case, online harassment may appear to be more mature because it is not associated with their K-12 online safety and cyberbullying prevention programs (e.g. Bradshaw 2015). Knowing students' preferred terminology is important both for researchers and practitioners who to seek to better understand the student victim experience and to support students who are being victimized.

Second, the coping strategies undergraduates reported adopting in response to cyberbullying victimization aligned with the theoretical framework posited by Alipan et al. (2018). Specifically, while problem-based strategies such as reporting the incident to a teacher or authority figure are more effective at stopping the bullying and getting support to heal (Nixon et al. 2020), as Alipan et al. theorized, the strategies were less commonly used. Instead, students more commonly adopted immediate, pseudo-anonymous technical coping strategies such as blocking the bully or withholding online comments and self-censoring. Potentially this trend is related to the bully using an anonymous account which prevents students from resolving the situation with problem-based strategies. While these technical approaches create distance between the victim and the bully, they do not necessarily stop the bully from spreading rumors or mean photos of the victim (i.e., the bullying does not necessarily stop just because the victim is no longer present). Additionally, these technical approaches potentially inhibit the victim from engaging in the positive aspects of social media and feeling free to be themselves in their online community (Alipan et al. 2018).

However, very few students chose to withdraw entirely from online peer interactions possibly because of the importance of social media in the social lives of emerging adults.

Implications

For today's undergraduates, cyberbullying is a pervasive issue in their online lives that shapes how they participate in online social and civic communities. As a modern form of silencing the voices of those with less power, cyberbullying leverages the social networks and media platforms intended to support community and civic discourse to oppress and silence victims into submission (Chadha et al. 2020). In response, victims may withdraw from their online communities, and develop mental health issues including anxiety and low self-esteem (e.g., Holt et al. 2014; Selkie et al. 2015). While the research is still nascent, experiencing cyberbullying during emerging adulthood may contribute to deviations in identity development and a lifetime of anxiety about online communication (e.g., Alipan et al. 2018; Arnett 2000; Lindsay et al. 2016).

Findings from this study amplify the need for education leaders to prioritize the importance of cyberbullying and online harassment as a growing equity issue in higher education. Studies have found that universities are unprepared to support cyberbullying victims (Bauman and Baldasare 2015; DuMont 2016; Myers and Cowie 2019; O'Connor et al. 2018), and that, when universities do provide cyberbullying support, students often underutilize the resources (Cowie and Myers 2015). Instead, this study found that students more often reported their experience to the social media moderators likely due to the ease and immediacy. Establishing an easy, online reporting process for cyberbullying victims has practical implications for university leaders who seek to support students

who are at risk of harm (e.g., DuMont 2016; O'Connor et al. 2018). To uphold their legal responsibility to provide a learning environment free from harassment, higher education leaders must investigate new methods to communicate that students do not have to suffer from victimization in silence (Cowie and Myers 2015; Washington 2015). Future design research is needed to work with higher education administrators and college students to design a reporting process using the terminology undergraduates prefer (i.e., online harassment vs. cyberbullying) and that provides a comfortable and convenient experience for victimized students.

Limitations

Findings are limited in their generalizability for two reasons. First, the sampling only represented one Mid-Atlantic research-intensive predominantly white university in which most participants were full-time students living on or near campus. Thus, this sample is not representative of all American undergraduates. Second, there was potential nonresponse or social desirability bias (Miller 2011), that could have caused people to underreport the extent of their victimization or vulnerability. While the author attempted to test for issues of nonresponse bias by comparing early with late responders (Byrne 2017) and comparing students' course modality, there is still a threat that students who realized the survey contained cyberbullying questions stopped participating. Future validation and reliability research could replicate the survey in other contexts and test the correlation of this measure of victimization with other multi-item surveys posed in the field (for a complete review see Jenaro et al. 2018).

Future Work

As online learning becomes a more ubiquitous aspect of undergraduate education, victim's reliance on technology coping strategies become particularly worrisome. How will students' coping strategies on social media transfer to the online classroom? How will victimized students (the majority of undergraduates) transition from their potentially private and withdrawn social media identity to an online discussion board in which they are required to share and debate with unknown peers? Echoing the concerns of Washington (2015), how do we support students in online learning when they live in a culture of cyberbullying? Future research will explore how students with differing cyberbullying experiences engage in online discussion boards with the intent to explain the connection between technical coping strategies and equity in online discussion boards.

While this study is novel in that the multi-item measure gathered student experiences across three latent factors of victimizations, future research is needed to further refine and validate the measure as social media changes. For example,

the least commonly reported victimization experience was when a bully created "a mean or hurtful web page" about the victim. This finding might have to do with the increased popularity of social media platforms such as Instagram, Snapchat, and TikTok over personal websites like Geocities, Tumblr, and MySpace in which users created personal pages. As social media evolves, cyberbullying will evolve in tandem causing some victimization measures to become outdated. Future research is needed to revise this "web page" item.

Finally, future research is needed to clarify the relationship between gender identity, gender presentation, victimization, and coping strategies. While other studies have compared the experiences of men and women (e.g., MacDonald and Roberts-Pittman 2010), these works potentially confuse the role of gender power in cyberbullying. Instead approaches such as Chadha et al. (2020) and Vitak et al. (2017) that center on women's experiences, can clarify the relationship between cyberbullying and gendered forms of online harassment such as sexism, misogyny, unwanted sexual advances, revenge porn, and the instances of intimate partner violence (Citron 2014; Jane 2014; Lindsay et al. 2016; O'Connor et al. 2018; Selkie et al. 2015; Vitak et al. 2017).

Conclusion

Cyberbullying is an emerging equity issue in higher education with well-documented social, psychological, and academic consequences. With nearly three out of five of undergraduates who responded to the survey reporting some type of victimization, it is a growing concern in higher education. While universities have a duty to support victims and provide a learning environment free from harassment, this study found that students do not turn to their campus faculty and staff for support. Either because they are unaware of the services available to them or they are embarrassed to identify with cyberbullying (e.g., Bauman and Baldasare 2015; DuMont 2016; O'Connor et al. 2018), college student victims adopt technical coping strategies which may further isolate them from their online communities. As undergraduate education increasingly moves online, future research must address how we support victims who have adopted technical coping strategies and withdrawn from sharing their thoughts and ideas online.

Funding Data collection was funded by a research grant provided by my institution [Blinded].

Data Availability I own the data.

Compliance with Ethical Standards

Conflicts of Interest/Competing Interests No conflicts of interest.

Research Involving Human Participants and/or Animals This research did survey human participants who were over the age of 18. My institutions' IRB approved this study. Ethical standards were upheld.

Informed Consent All participants provided informed consent prior to participating. Participation was voluntary. My institutions' IRB approved this study.

Code Availability N/A

References

- Adams, F., & Lawrence, G. (2011). Bullying victims: The effects last into college. *American Secondary Education*, 40(1), 4–14. <https://doi.org/10.1002/fut>.
- Alipan, A., Skues, J. L., & Theiler, S. (2018). “They will find another way to hurt you”: Emerging adults’ perceptions of coping with cyberbullying. *Emerging Adulthood*, 1–13. <https://doi.org/10.1177/2167696818816896>.
- Alipan, A., Skues, J. L., Theiler, S., & Wise, L. (2019). Defining cyberbullying: A multifaceted definition based on the perspectives of emerging adults. *International Journal of Bullying Prevention*, 2(2), 79–92. <https://doi.org/10.1007/s42380-019-00018-6>.
- Anderson, M. (2018). *Pew research center; A majority of teens have experienced some form of cyberbullying* (Issue September). <http://www.pewinternet.org/2018/09/27/a-majority-of-teens-have-experienced-some-form-of-cyberbullying/>
- Arnett, J. J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist*, 55(5), 469–480. <https://doi.org/10.1037/0003-066X.55.5.469>.
- Bauman, S., & Baldasare, A. (2015). Cyber aggression among college students: Demographic differences, predictors of distress, and the role of the university. *Journal of College Student Development*, 56(4), 317–330.
- boyd, d. (2010). Social network sites as networked publics: Affordances, dynamics, and implications. In Z. Papacharissi (Ed.), *Networked Self: Identity, community, and culture on social network sites* (pp. 39–58). <http://www.danah.org/papers/2010/SNSasNetworkedPublics.pdf>
- Bradshaw, C. P. (2015). Translating research to practice in bullying prevention. *American Psychologist*, 70(4), 322–332. <https://doi.org/10.1037/a0039114>.
- Byrne, D. W. (2017). *Publishing your medical research* (2nd ed.) Wolters Kluwer.
- Byrne, V. L. (2020). Validating a cyberbullying victimization measure among undergraduate students. *Journal of College Student Development*, in press.
- Chadha, K., Steiner, L., Vitak, J., & Ashktorab, Z. (2020). Women’s responses to online harassment. In *International Journal of Communication*, 14, 239–257.
- Chickering, A. W., & Reisser, L. (1993). *Education and identity*. Jossey-Bass Publishers.
- Citron, D. K. (2014). *Hate crimes in cyberspace*. Harvard University Press.
- Cowie, H., & Myers, C. A. (2015). Bullying among university students. In H. Cowie & Myers (Eds.), *Bullying among university students: Cross-national perspectives*. Routledge. <https://doi.org/10.4324/9781315750132>.
- Doane, A. N., Kelley, M. L., Chiang, E. S., & Padilla, M. A. (2013). Development of the cyberbullying experiences survey. *Emerging Adulthood*, 1(3), 207–218.
- Duggan, M. (2017). Pew research center. *Online harassment, 2017* <http://www.pewinternet.org/2014/10/22/online-harassment/>.
- DuMont, S. (2016). Campus safety v. freedom of speech: An evaluation of university responses to problematic speech on anonymous social media. *Journal of Business and Technology Law*, 11, 239.
- Faucher, C., Jackson, M., & Cassidy, W. (2014). Cyberbullying among university students: Gendered experiences, impacts, and perspectives. *Education Research International*, 2014, 1–10. <https://doi.org/10.1155/2014/698545>.
- Francisco, S. M., Simão, A. M. V., Ferreira, P. C., das Dores Martins, M. J., Veiga Simão, A. M., Ferreira, P. C., & Martins, M. J. D. D. (2015). Cyberbullying: The hidden side of college students. *Computers in Human Behavior*, 43, 167–182. <https://doi.org/10.1016/j.chb.2014.10.045>.
- Holt, M. K., Greif Green, J., Reid, G., DiMeo, A., Espelage, D. L., Felix, E. D., Furlong, M. J., Poteat, V. P., & Sharkey, J. D. (2014). Associations between past bullying experiences and psychosocial and academic functioning among college students. *Journal of American College Health*, 62(8), 552–560. <https://doi.org/10.1080/07448481.2014.947990>.
- Jane, E. A. (2014). “Your a ugly, whorish, slut”: Understanding e-bile. *Feminist Media Studies*, 14(4), 531–546. <https://doi.org/10.1080/14680777.2012.741073>.
- Jenaro, C., Flores, N., & Frías, C. P. (2018). Systematic review of empirical studies on cyberbullying in adults: What we know and what we should investigate. *Aggression and Violent Behavior*, 38, 113–122. <https://doi.org/10.1016/j.avb.2017.12.003>.
- Juvonen, J., & Gross, E. F. (2008). Extending the school grounds? Bullying experiences in cyberspace. *Journal of School Health*, 78(9), 496–505. <https://doi.org/10.1111/j.1746-1561.2008.00335.x>.
- Kowalski, R. M., Giumetti, G. W., Schroeder, A. N., & Lattanner, M. R. (2014). Bullying in the digital age: A critical review and meta-analysis of cyberbullying research among youth. *Psychological Bulletin*, 140(4), 1073–1137.
- Lai, T., & Kao, G. (2018). Hit, robbed, and put down (but not bullied): Underreporting of bullying by minority and male students. *Journal of Youth & Adolescence*, 47(3), 619–635.
- Lindsay, M., Booth, J. M., Messing, J. T., & Thaller, J. (2016). Experiences of online harassment among emerging adults: Emotional reactions and the mediating role of fear. *Journal of Interpersonal Violence*, 31(19), 3174–3195. <https://doi.org/10.1177/0886260515584344>.
- MacDonald, C. D., & Roberts-Pittman, B. (2010). Cyberbullying among college students: Prevalence and demographic differences. *Procedia - Social and Behavioral Sciences*, 9, 2003–2009. <https://doi.org/10.1016/j.sbspro.2010.12.436>.
- Miller, A. L. (2011). Investigating social desirability bias in student self-report surveys. *Educational Research Quarterly*, 36(1), 30–47. <https://eric.ed.gov/?id=EJ1061958>.
- Myers, C.-A., & Cowie, H. (2019). Cyberbullying across the lifespan of education: Issues and interventions from school to university. *International Journal of Environmental Research and Public Health*, 16(7), 1217. <https://doi.org/10.3390/ijerph16071217>.
- Nixon, C. L., Jairam, D., Davis, S., Linkie, C. A., Chatters, S., & Hodge, J. J. (2020). Effects of students’ grade level, gender, and form of bullying victimization on coping strategy effectiveness. *International Journal of Bullying Prevention*, 2(3), 190–204. <https://doi.org/10.1007/s42380-019-00027-5>.
- O’Connor, K., Drouin, M., Davis, J., & Thompson, H. (2018). Cyberbullying, revenge porn and the mid-sized university: Victim characteristics, prevalence and students’ knowledge of university policy and reporting procedures. *Higher Education Quarterly*, 72(4), 344–359. <https://doi.org/10.1111/hequ.12171>.
- Patchin, J. W., & Hinduja, S. (2015). Measuring cyberbullying: Implications for research. *Aggression and Violent Behavior*, 23, 69–74. <https://doi.org/10.1016/j.avb.2015.05.013>.

- Porter, S., Whitcomb, M., & Weitzer, W. (2004). Multiple surveys of students and survey fatigue. *New Directions for Institutional Research*, 2004(121), 63–73.
- Raykov, T., & Marcoulides, G. (2011). Classical item analysis using latent variable modeling: A note on a direct evaluation procedure. *Structural Equation Modeling*, 18(2), 315–324.
- Schenk, A. M., Fremouw, W. J., & Keelan, C. M. (2013). Characteristics of college cyberbullies. *Computers in Human Behavior*, 29(6), 2320–2327. <https://doi.org/10.1016/j.chb.2013.05.013>.
- Selkie, E. M., Kota, R., Chan, Y.-F., & Moreno, M. (2015). Cyberbullying, depression, and problem alcohol use in female college students: A multisite study. *CyberPsychology, Behavior & Social Networking*, 18(2), 79–86. <https://doi.org/10.1089/cyber.2014.0371>.
- Tokunaga, R. S. (2010). Following you home from school: A critical review and synthesis of research on cyberbullying victimization. *Computers in Human Behavior*, 26(3), 277–287. <https://doi.org/10.1016/j.chb.2009.11.014>.
- Varjas, K., Henrich, C. C., & Meyers, J. (2009). Urban middle school students' perceptions of bullying, cyberbullying, and school safety. *Journal of School Violence*, 8(2), 159–176. <https://doi.org/10.1080/15388220802074165>.
- Vitak, J., Chadha, K., Steiner, L., & Ashktorab, Z. (2017). Identifying women's experiences with and strategies for mitigating negative effects of online harassment. *Proceedings of the ACM Conference on Computer Supported Cooperative Work*, CSCW, 1231–1245. <https://doi.org/10.1145/2998181.2998337>.
- Washington, E. T. (2015). An overview of cyberbullying in higher education. *Adult Learning*, 26(1), 21–27. <https://doi.org/10.1177/1045159514558412>.

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.