



Mental health and academic impacts of intimate partner violence among IHE-attending women

Leila Wood, Rachel Voth Schrag & Noël Busch-Armendariz

To cite this article: Leila Wood, Rachel Voth Schrag & Noël Busch-Armendariz (2020) Mental health and academic impacts of intimate partner violence among IHE-attending women, Journal of American College Health, 68:3, 286-293, DOI: [10.1080/07448481.2018.1546710](https://doi.org/10.1080/07448481.2018.1546710)

To link to this article: <https://doi.org/10.1080/07448481.2018.1546710>



Published online: 17 Dec 2018.



Submit your article to this journal [↗](#)



Article views: 542



View related articles [↗](#)



View Crossmark data [↗](#)



Citing articles: 8 View citing articles [↗](#)

MAJOR ARTICLE



Mental health and academic impacts of intimate partner violence among IHE-attending women

Leila Wood, PhD, MSW^a, Rachel Voth Schrag, PhD, LCSW^b , and Noël Busch-Armendariz, PhD, LMSW, MPA^a

^aInstitute on Domestic Violence & Sexual Assault, Steve Hicks School of Social Work, The University of Texas at Austin, Austin, TX, USA;

^bSchool of Social Work, The University of Texas at Arlington, Arlington, TX, USA

ABSTRACT

Objective: The study assesses the prevalence of physical, psychological, sexual, and cyber forms of intimate partner violence (IPV) among female college students, and associated mental health and academic outcomes.

Participants: Participants ($n = 6,818$) were randomly selected female students attending one of eight campuses of a University System in the Southwest. Their mean age was 25, and 45% identified as Hispanic/Latina. Data collection concluded in November of 2015.

Methods: Students completed anonymous online surveys of behavioral-specific measures assessing victimization and potential impacts. Descriptive, bivariate, and multiple regression analyses were employed.

Results: Since enrollment, 31% had experienced IPV. Significant correlations were observed between severity of IPV and extent of PTSD, depression, school disengagement, and academic impacts. Higher levels of psychological, sexual, and cyber violence were associated with increased PTSD and depression symptoms.

Conclusion: IPV is a significant indicator of mental health and academic impacts, meriting attention from Institutions of Higher Education.

ARTICLE HISTORY

Received 22 May 2018

Revised 9 October 2018

Accepted 3 November 2018

KEYWORDS

Academic achievement; dating violence; higher education; intimate partner violence; mental health

Introduction

More than one in three women in the United States have experienced rape, physical violence, or stalking by an intimate partner in their lifetime, and nearly half have experienced psychological aggression.¹ Historically, research on intimate partner violence (IPV) has not focused on the college experience. In the last decade, study findings have begun to offer a glimpse into the prevalence, risk, and impact of IPV among students at Institutions of Higher Education (IHEs).^{2–5} A study by The American Association of Universities of interpersonal violence on 27 college campuses, found that 9.8% of currently or previous partnered students reported experiencing IPV since starting college.³ Krebs et al.⁵ found a range of 5.5–9.4% for IPV victimization during the 2014–2015 school year across a sample of nine IHEs. However, little is known about the types of IPV experienced by college students. This study adds to a small but growing body of literature focused on IPV among college students^{2,4,6–9} by exploring the prevalence of physical, psychological, sexual and cyber forms of IPV among a sample of female-identified students across a large college system in the Southwest United States.

Scholars find a wide range of estimates for the extent of dating violence and IPV among college students. IPV is experienced by all genders and recently literature has highlighted the differing role of gender in IPV victimization and

perpetration, particularly within young adult populations, offering a nuanced perspective on impact.^{10,11} Findings suggest 10–50% of college relationships include physical aggression, while sexual aggression occurs in 15–25% of relationships and emotional or psychological aggression occurs in 50–80% of relationships.^{6,9,12,13} This large variation in victimization rates is at least in part due to inconsistent conceptualization and measurement of IPV across studies. Despite the inconsistencies in approach, data are clear that college-aged women are at a unique risk for IPV. There are still substantial gaps in our conceptualization of the problem. Previous experiences of interpersonal violence are known to be a risk factor for future abuse.^{14,15} The Jordan, Combs and Smith study of sexual violence survivors found that previous victimization increases the risk of future violence for college students.⁴⁸ There is limited evidence looking at victimization across forms of IPV including physical, sexual, emotional, and cyber IPV in college samples.^{4,13} Thus, this study aims to fill research gaps in our understanding of female college students' experiences of IPV.

A small body of research has explored academic impacts of IPV victimization among IHE students.^{16,17,48} Mengo and Black found a direct association between academic performance and physical and sexual violence victimization in a small sample of counseling and crisis intervention service-seeking college students on a large University campus.¹⁸ A recent study of over 6,000 college students found that

relationship violence significantly predicted lower academic efficacy, lower institutional commitment, and lower scholastic conscientiousness.¹⁹ Among a population of women at a Historically Black College and University (HBCU) in the South, Amar and Gennaro found that survivors of multiple types of dating violence (ie, physical and emotional) had significantly higher scores on depression, anxiety, and somatization scales versus who did not experience any IPV.¹³ In addition, dating violence in the IHE context has been linked with negative mental health impacts, such as increased PTSD and depression⁴ and increased risk for substance abuse.⁹ While experiences of multiple types and incidents of IPV are associated with increased depression and PTSD among female-identified survivors,⁴ more information is needed about the impact of cyber violence as a type of IPV. Similarly, Voth Schrag, Edmond, and Nordberg qualitatively identified specific abusive behaviors targeted at disrupting schooling for IHE students, with perceived impacts including decreased GPA, increased risk of drop out, and decreased emotional well-being for survivors. However, any differences in impact by type or severity, is unknown.²⁰

Attention to this question is particularly warranted, as population level studies of IPV have identified an unexpected association between IPV and educational attainment. Breiding, Black, and Ryan, assessed data from the first IPV module within the Behavioral Risk Factor Surveillance System Survey. They found women who have attended 'some college' are more likely to report IPV victimization than either high school graduates or college graduates.²¹ The extent to which IPV was a direct barrier to college completion for these women needs additional attention. While Coker and colleagues found no difference in level of sexual and intimate partner victimization between young women who were currently in college and those who had never attended college, they did not assess any potential difference between these students and those who had attended college previously but dropped out.²² Given the role of higher education in long term economic security, examining the potential academic impacts of IPV on students in IHEs is critical. Thus, the current study seeks to understand the prevalence of distinct forms of dating violence victimization among female-identified IHE students, and the association of these forms with mental health and academic indicators.

Methods

This study is a survey of prevalence and impact of interpersonal violence among female identified students. Research questions included:

1. What is the prevalence of IPV among female identified college students who have been in an intimate relationship since the beginning of college? How does prevalence vary by combination of IPV experienced (psychological, physical, sexual, and cyber)?
2. Is there an association between IPV, mental health, and academic engagement for female identified students?
3. Do different forms of IPV lead to differential impacts related to mental health and academic engagement?

Data were collected from students on eight campuses of a large, racially diverse, Southwestern university system. During the academic year in which data were collected, 40.8% of students identified as Hispanic/Latinx, while 29.7% identified as White, 10.1% identified as Asian, and 6.8% identified as African American. The anonymous, web-based survey was administered to enrolled student age 18 or older at academic institutions. Students were randomly selected (with the exception of one small campus, where a census sample was used) and invited to participate in a safety-related survey via email. The survey was not advertised as a victimization survey to mitigate potential response bias. Students were randomized to three different survey versions to minimize length, with only nominal differences in number for each pathway. On the sections that were equivalent between pathways (including demographics and cyber victimization), no differences were observed between pathway groups. Reliability coefficients were calculated for measures with the sample for this study. Incentives differed by campus, with a range of cash and prize drawings offered to participants.

The Administrator-Researcher Campus Climate Collaborative (ARC3) survey was the base tool for the broader survey²³ with IPV measurements adapted from the Center for Research on Violence Against Women (CRVAW) Campus Attitudes Towards Safety (CATS) survey.²⁴ Participants were asked about experiences that occurred since enrollment at their IHE. Sexual and cyber victimization experiences were included if the participant indicated the perpetrator was a current or former romantic partner. For all forms of IPV, participants were counted as having experienced the behavior if they indicated in the survey platform experiencing one or more behaviors since entering college. For regression and correlation analyses, victimization scale scores were used to capture variation in extent of victimization. For the current analysis, the following measures were used:

Physical violence

Physical violence was measured with a behaviorally-based scale developed for CATS by CRVAW.²⁴ Participants were asked if a series of physical behaviors had occurred since enrollment, not in a playful or joking manner. Nine items were used, included slapped you, hit, punched, kicked or bit you, and beat you up. For each item, participants indicated the extent of behaviors, from 0 to 6+ times, for a theoretical and observed scale range from 0–54. In the current sample, the mean for physical violence severity was .45 ($SD = 2.61$). In the current sample, the coefficient alpha is .92.

Psychological violence

Psychological violence was measured with a version of a scale modified by CRVAW.²⁴ Five questions were asked assessing frequency and severity of psychological violence since enrollment, specifying actions not done in a playful or joking manner (example: In front of others, insulted you,

acted like they hated you, flirted with others?). In the current sample, the mean for psychological violence severity was 1.15 ($SD = 3.68$), and the coefficient alpha was .87.

Cyber violence

A modified 16 question version of the Cyber Abuse Dating Scale was used to measure cyber violence.²⁵ The scale asked about experiences that former or current dating partner or hook up had perpetrated. For this analysis, 8 questions assessing victimization experiences were used (examples: They sent threatening text messages to me or They used information from my social networking site to harass me or put me down). The mean for cyber IPV severity was .21 ($SD = .78$), and the coefficient alpha was .64.

Sexual violence

Sexual violence was measured using the Sexual Experiences Survey Short Form Victimization (SES-SFV) as adapted for ARC3²⁴ from Koss et al.²⁶ The measure asks about unwanted sexual experiences including unwanted contact, rape, and attempted rape.²⁶ A participant was identified as having experienced sexual assault in the context of IPV if they indicated they had experienced unwanted touching, rape, and attempted rape and on follow-up indicated the most impactful event was with a current or former intimate partner. In the current sample, the mean for sexual IPV severity was .56, ($SD = 3.80$), and the coefficient alpha was .93.

Post-traumatic stress disorder

The primary care posttraumatic stress disorder scale (PC-PTSD 5) was used to screen for PTSD. A person is considered to screen positive with this measure if they answer yes to three of four items. The participant was asked about experiences in the previous month, including Have had nightmares about it or thought about it when you did not want to? and were constantly on guard, watchful, or easily startled.²⁷ The coefficient alpha for the current sample was .81.

Depression

Depression was measured with the Center for Epidemiological Studies Depression Scale.²⁸ The CESD is a 10-item scale that measures behaviors and feeling occurring in the past week (0–3). Items include: I was bothered by things that usually don't bother me and I felt that everything I did was an effort. A person is considered positive for depression symptoms with a score of 10 or more. In the current sample, the coefficient alpha for this scale is .81.

Disengagement

Academic disengagement was measured using a 5-item scale from ARC3²³ and modified from Hanisch and Hulin²⁹ and Huerta et al.³⁰ Question asked about frequency of behaviors,

ranging from 0–4, such as missing class and attending class while high. In the current sample, the mean is 3.19 ($SD = 2.48$), and coefficient alpha is .67.

Academic impact

Academic impact was measured using questions from a scale of personal and economic impact adapted for the larger study² from a measure from Tjaden.³¹ A total of nine items tapping various academic impacts (eg, Did you have to take time off from school as a result of these events and Did you change majors as a result of these events?) were summated and the total score was used for correlational and regression analysis. The theoretical range for this scale was 0–9, while the observed range was 0–7. The current sample mean was .10 ($SD = .52$), and coefficient alpha was .76.

Demographics

The survey also included comprehensive demographic questions modified from the Johns Hopkins climate survey.³² Demographic categories were collapsed for analysis and reporting. Age and housing situation are controlled in multivariate models because each has been identified as a strong predictor of academic engagement in IHEs, with older students and those living on campus more likely to demonstrate academically engaged behaviors.^{33,34}

Data Analysis

Descriptive analysis was used to assess combinations of IPV victimization, with students considered to have experienced a form of IPV if they reported at least one incidence since entering college. Correlational analysis was used to assess the correlation of the severity of forms of IPV victimization with academic and mental health impacts, while multiple regression analysis was used to assess the connection between forms of IPV, key covariates (age, housing situation), and academic and mental health impacts. To address individual item-non-response within the data, multiple imputation using the multivariate normal method was employed for all multivariate analyses.³⁵ The variance inflation factor (VIF) between all covariates was estimated to assess multicollinearity. The mean VIF for all covariates was 1.5, and the highest individual VIF was 2.2, suggesting that multicollinearity is not a concern.^{36,37} Cook's D was estimated to assess for influential data points in multivariate models. No concerning patterns were observed and all observations were retained for analysis.

Results

Across the academic campuses, a total of 186,790 students were invited to participate and 26,417 completed the survey for a response rate of 14.1%. Respondents were included in the current analysis if they (a) self-identified as female and (b) reported having been in an intimate relationship since they entered college. More details on the methodology of

Table 1. Description of participants ($n = 6,818$).

Demographics	Mean/SD or %
Age at last birthday	25.27 (8.11)
Classification in school	
Freshman	13.13%
Sophomore	13.51%
Junior	20.78%
Senior	24.77%
Graduate/professional	26.58%
Other	1.11%
Race/ethnicity ^a	
White Non-Hispanic	41.73%
Hispanic or Latino	45.26%
Asian	10.19%
African American	5.41%
Bi or multiracial	3.94%
Another race/ethnicity	7.64%
Current living situation	
On campus residence	14.92%
Off campus	56.51%
Off campus- with parent/guardian	24.48%
Caring for children at home	18.51%

^aAdds to more than 100% because participants could choose more than one category.

the larger study can be found at Authors, 2017.¹⁸ A description of the sample can be found in Table 1. The average age of students was 25.27 years ($SD = 8.11$). Forty-five percent of respondents identified as Hispanic or Latino, while 41% identified as White, and 10% identified as Asian (Table 1).

Thirty-one percent of respondents reported experiencing at least one incidence of IPV since they entered college. Table 2 provides the results for types of IPV victimization among female-identified participants who have been in an intimate relationship since beginning college. Psychological violence was the most frequently reported (21% of students), followed by physical violence (11%), cyber IPV (9%) and sexual IPV (7%). The five most common IPV experiences were: only psychological violence (9%), physical & psychological violence (4%), only physical violence (4%), only cyber violence (3%), and psychological and cyber violence (2%). The least commonly experienced included physical, sexual, and cyber IPV (0.1%), and physical and sexual IPV (0.2%) (Table 2).

Significant correlations were observed between severity of each form of IPV and extent of PTSD, depression, school disengagement behaviors, and academic impacts, as well as between experiences of different forms of IPV (see Table 3). All correlations between forms of IPV and impacts fell below $r = .30$, fitting Cohen's definition of a small correlation.³⁸ Extent of psychological IPV severity had the strongest correlation with depression symptomology, $r(6,816) = .15$, $p < .001$, PTSD symptomology $r(6,818) = .19$, $p < .001$, disengagement behavior $r(6,816) = .14$, $p < .001$, and academic impacts $r(6,818) = .26$, $p < .001$ (Table 3).

As indicated in Table 4, higher levels of psychological and cyber IPV were significantly associated with increased academic disengagement behaviors, when controlling for the impacts of age, living situation (on campus, off campus, off campus with parents) and all forms of IPV. Higher severity of all four forms of IPV were also associated with increased academic impacts from IPV when controlling for age and housing (Table 4).

Table 2. IPV Victimization among female students who have been in an intimate relationship since beginning college ($n = 6,818$).

	% (n)
Any form of IPV	30.60% (2,086)
Physical	11.38 % (776)
Psychological	20.96% (1,429)
Sexual	6.64% (453)
Cyber	9.04% (598)
Combinations	
Physical only	3.73% (254)
Physical + psychological	3.89% (265)
Physical + sexual	0.16% (11)
Physical + cyber	0.37% (25)
Physical + psychological + sexual	0.89% (61)
Physical + psychological + cyber	1.61% (110)
Physical + sexual + cyber	0.10% (7)
Physical + psychological + sexual + cyber	0.63% (43)
Psychological only	9.33% (636)
Psychological + sexual	1.58% (108)
Psychological + cyber	2.35% (160)
Psychological + sexual + cyber	0.67% (46)
Sexual only	2.24% (153)
Sexual + cyber	0.35% (24)
Cyber only	2.68% (183)

In multivariate models found in Table 5, higher levels of psychological, sexual, and cyber IPV were associated with increased PTSD symptomology, while older age and living off campus on one's own were associated with decreased symptomology. Similarly, higher levels of psychological, sexual, and cyber IPV were associated with increased depression symptomology, while increased age, and living off campus either on one's own or with one's parents were associated with decreased depression symptoms (Table 5).

Comment

IPV on campus is a pervasive problem that warrants attention alongside efforts to address sexual assault and harassment. The current study found high rates of IPV among female identified students on eight college campuses, similar to findings of other studies.³ Since entering college, 31% of respondents reported at least one instance of IPV victimization, with over 12% reporting multiple forms. In the current sample, psychological abuse was the most prevalent, with 21% of students reporting victimization since entering college, and it was the most strongly correlated with negative academic and mental health indicators. However, psychological violence often gets less attention than physical or sexual IPV in IHEs. Similarly, cyber abuse by an intimate partner, a novel addition in this study, was reported by over 9% of respondents, with significant associations with negative academic and mental health indicators in both bivariate and multivariate models. Sexual violence by a current or former dating partner was reported by 6.6% of respondents, suggesting that campus professionals should be equipped to respond to a range of sexual assault dynamics, including in the context of IPV. For campus professionals, these findings suggest the importance of developing strategies for addressing and preventing a range of types of IPV.

For IHEs, this could mean thoroughly incorporating all aspects of IPV into their existing public health and bystander intervention training efforts, and expanding the

Table 3. Correlations between forms of IPV, mental health, and academic indicators.

	Physical IPV	Psychological IPV	Cyber IPV	Sexual IPV	Depression symptomology	PTSD symptomology	Academic disengagement
	1	2	3	4	5	6	7
1 Physical IPV	—						
2 Psychological IPV	.54***	—					
3 Cyber IPV	.15***	.26***	—				
4 Sexual IPV	.16***	.29***	.12***	—			
5 Depression Symptomology	.10***	.15***	.12***	.09***	—		
6 PTSD Symptomology	.13***	.19***	.13***	.11***	.44***	—	
7 Academic disengagement	.09***	.14***	.06***	.06***	.33***	.17***	—
8 Academic Impact	.22***	.26***	.15***	.12***	.15***	.18***	.11***

*** $p < .001$.**Table 4.** Results of multiple regression for the association of academic disengagement and academic impacts with forms of intimate partner violence for ever-partnered college women.

	Disengagement				Academic impacts			
	B	SE	T	p	B	SE	T	p
Physical IPV	.02	.15	1.32	.18	.02	.00	6.96	.00
Psychological IPV	.07	.01	6.37	.00	.03	.00	11.97	.00
Sexual IPV	.01	.01	1.37	.18	.01	.00	20.82	.01
Cyber IPV	.16	.04	3.79	.00	.05	.01	6.16	.00
Age	-.11	.00	-27.95	.00	.00	.00	.02	.97
Living situation: On campus								
Off campus-own place	-.03	.09	-.33	.76	.00	.01	.01	.98
Off campus- With Parents	-.36	.10	-3.75	.00	.00	.02	.13	.91
Constant	6.03	.11	53.28	.00	.04	.02	1.64	.11
Model statistics $F(75,730.6)$	148.32		$F(75,703.4)$		$F(75,703.4)$	87.21		
p	0.000				p	0.000		

Table 5. Results of multiple regression for the association of mental health symptomology with forms of intimate partner violence for ever-partnered college women.

	PTSD symptomology				Depression symptomology			
	B	SE	T	p	B	SE	T	p
Physical IPV	.02	.01	1.83	.07	.05	.04	1.43	.15
Psychological IPV	.05	.01	8.48	.00	.16	.02	6.56	.00
Sexual IPV	.01	.00	4.24	.00	.06	.02	2.91	.00
Cyber IPV	.17	.02	6.95	.00	.58	.10	5.59	.00
Age	-.01	.00	-3.06	.00	-.09	.01	-9.56	.00
Living situation: on campus								
Off campus-own place	-.13	.06	-2.40	.01	-.52	.02	-2.40	.01
Off campus- with parents	-.11	.06	-1.94	.06	-.49	.04	-2.08	.03
Constant	1.31	18.83	18.83		11.29	41.24		
Model statistics $F(7, 5740.00)$	47.91				$F(75,554.6)$	47.96		
p	0.000				p	0.000		

range of services for survivors. Public health models of education and prevention programming for dating violence has been well integrated into many middle and high schools, such as the HEART program, while prevention efforts in the IHE context have generally focused on sexual assault.³⁸ In IHEs, bystander intervention has been widely applied to sexual assault prevention, but recent research suggests potential efficacy for dating violence prevention.^{22,39,40} Bystander intervention efforts focus on increasing willingness for witnesses to help in a potentially harmful situation through increased education and skill.^{22,39} Coker et al. compared campuses with and without the Green Dot model of bystander intervention and found a decrease in perpetration and victimization of psychological dating violence at the intervention campuses.²² Bystander education for IPV may need to be modified for perceived feasibility, especially when addressing a perpetrator of violence.⁴¹

This study demonstrates the necessity of bringing IPV into the conversation around violence prevention in IHEs, as well as a need for a broad conceptualization of the issue to adequately address the range of impacts and experiences among student-survivors. Service needs have been noted by other studies. Holtfreter and Boyd found service providers who engaged in a coordinated community response to IPV on a university campus were satisfied with the collaboration but felt a need for increased training and resources.⁴² Sabina et al.⁴³ found that the most frequently reported services provided by IHEs to survivors of dating violence and sexual assault included counseling and police services, although many IHEs reported few services for IPV survivors. Increasing the service response will increase needed support for survivors and their peers.

Survivors of IPV in the IHE context experience many of the same violence and control tactics and negative mental

and physical impacts as survivors in community, and many students are living in the community. In this study, nearly 85% of participants were living away from dorms or other campus locations where prevention and interventions are often delivered.² To serve these students, IHEs can learn from community-based IPV advocates. Many such advocates embrace a philosophy of Survivor Defined Advocacy (SDA), a framework that points to the role of individually tailored advocacy to provide support, resources, and information to survivors.⁴⁴ SDA conceptualizes the risks faced by survivors as including batterer generated risks and life generated risks, which work in combination across ecological levels to impact a survivor's safety and ability to navigate life. SDA suggests that support must be survivor focused, culturally relevant, and individually tailored.⁴⁴ Non-clinical interventions, like advocacy models, can also provide essential support and promote healing among survivors, especially when there is a strong alliance with the advocate or provider of services.⁴⁵ Findings from this study suggest that a SDA model on campus requires attention on how to screen, prevent, and intervene in different types of violence. For example, many academic institutions are increasingly focused on online and distance education, so findings related to the prevalence of cyber abuse among students underscore the importance of understanding how experiences these experiences impact students' academic pathways. Developing outreach, advocacy, and safety planning interventions for all students, including those online, is an important step to address such experiences, and can augment the work already being done by student health professionals and counseling providers.

Limitations

There are several limitations of note. This study focuses on the impacts of IPV on female-identified IHE students and does not include information on gender non-binary and male-identified students. The cross-sectional nature of the study does not allow for understanding how experiences may shift overtime. The survey response rate could be improved to further protect against selection-bias. The survey focused on experiences since enrollment, thus limiting our understanding of past experiences. Childhood abuse is a risk factor for physical violence victimization among females and substance use is a risk factor for psychological violence.¹² Next, two measures- of cyber victimization and academic disengagement, had lower levels of reliability in the current sample. These estimates should be considered with caution, and future work should assess the reliability and validity of these measures in samples of diverse college students. As is expected with measures of rare phenomenon, the distribution of the victimization measures are positively skewed. However, multiple regression with a large sample size is fairly robust against such a violation of assumptions.⁴⁷ Finally, psychological and physical IPV questions were framed differently than sexual and cyber victimization questions. Students were only asked about physical and psychological IPV if they indicated they had been in an

intimate relationship since beginning of college, and the questions were framed specifically in terms of intimate partner perpetration. Comparatively, students were asked about cyber and sexual victimization more broadly, and then asked to indicate the perpetrator of the most impactful event. They are included in the current study if they indicated that the perpetrator was a current or former intimate partner. Due to this framing, the rates of sexual assault and cyber violence in the context of IPV are likely underestimated.

Conclusion

Given the strong observed link between IPV and mental health symptomology, IHEs should consider strategies to increase the availability of evidence-based practices for treating trauma. Without treatment, mental health impacts such as PTSD and depression symptomology can lead to decreased academic achievement as well as hamper students' social functioning.⁴⁷ Given the strongly observed correlation between these mental health indicators and academic disengagement, developing systematic strategies for addressing mental health need on campus could have important academic and well-being consequences for survivors and others.

Assessment and evaluation of supports for IPV survivors is needed, including a specific focus on safety planning in the academic context. More information is needed on the potential mediating role of mental health on academic impact, and longitudinal information is needed to understand the unique impacts of IPV over time. Future work should provide insights regarding the impacts of IPV on male-identified students, as well as their unique service needs and experiences. Given the frequency of cyber violence as part of IPV, more information is needed to understand the experiences of online students, who may experience additional isolation from traditional campus supports.

IPV in the lives of female-identified college students merits more attention and action among practitioners, administrators, educators and policy makers. In this sample, students indicated high levels of victimization, and frequent occurrence of polyvictimization of IPV types. This underscores the need to further address these experiences among female-identified students. The impact of IPV includes mental health and academic concerns that can limit safety and educational access in the lives of survivors. Alongside increasing research, tailored services and policies are needed to address the unique safety concerns and accommodations, especially for survivors of multiple types of IPV. The present study supports an emerging and persuasive body of literature that should implore IHE's to do more to support survivors of IPV.

Conflict of interest disclosure

The authors have no conflicts of interest to report. The authors confirm that the research presented in this article met the ethical guidelines, including adherence to the legal requirements, of The United States of America and received

Institutional Review Board approval from The University of Texas at Austin.

ORCID

Rachel Voth Schrag  <http://orcid.org/0000-0001-5273-9905>

References

- Black MC, Basile KC, Breiding MJ, Smith SG, Walters ML, Merrick MT, Chen J, Stevens MR. *The National Intimate Partner and Sexual Violence Survey (NISVS): 2010 Summary Report*. Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention; 2011.
- Busch-Armendariz NB, Wood L, Kammer-Kerwick M, et al. Cultivating Learning and Safe Environments: An Empirical Study of Prevalence and Perceptions of Sexual Harassment, Stalking, Dating/Domestic Abuse and Violence, and unwanted Sexual Contact—The University of Texas System Academic Institutions. Austin, TX: Institute on Domestic Violence and Sexual Assault, The University of Texas at Austin; 2017.
- Cantor D, Fisher B, Chibnall S, et al. *Report on the AAU Campus Climate Survey on Sexual Assault and Sexual Misconduct*. Rockville, MD: Westat; 2015.
- Eshelman L, Levendosky AA. Dating violence: Mental health consequences based on type of abuse. *Violence Vict*. 2012;27(2): 215–228. doi: 10.1891/0886-6708.27.2.215
- Krebs C, Lindquist C, Berzofsky M, Shook-Sa B, Peterson K. *Campus Climate Survey Validation Study: Final Technical Report*. Research Triangle Park, NC: RTI International; 2016.
- Kaukinen C. Dating violence among college students: The risk and protective factors. *Trauma Violence Abus*. 2014;15(4): 283–296. doi:10.1177/1524838014521321
- Mason B, Smithy M. The effects of academic and interpersonal stress on dating violence among college students: A test of *J Interpers Violence*. 2012;27(5):974–986. classical strain theory.
- Nabors E. Drug use and intimate partner violence among college students: An in-depth exploration. *J Interpers Violence*. 2010; 25(6):1043–1063.
- Shorey R, Stuart G, Cornelius T. Dating violence and substance use in college students: A review of the literature. *Aggress Violent Behav*. 2011;16(6):541–550.
- Chen P, White H. Gender differences in adolescent and young adult predictors of later intimate partner violence. *Violence Against Women*. 2004;10(11):1283–1301.
- Hamby S, Jackson A. Size does matter: The effect of gender on perceptions of dating violence. *Sex Roles*. 2010;63(5-6):324–331.
- Gover AR, Kaukinen C, Fox KA. The relationship between violence in the family of origin and dating violence among college students. *J Interpers Violence*. 2008;23(12):1667–1693.
- Amar AF, Gennaro S. Dating violence in college women: Associated physical injury, healthcare usage, and mental health symptoms. *Nurs Res*. 2005;54:235–242.
- Kuijpers K, van der Knaap L, Winkel F. PTSD symptoms as risk factors for intimate partner violence revictimization and the mediating role of victims' violence behavior. *J Traum Stress*. 2012;25(2):179–186.
- Walby S, Allen J. *Domestic Violence, Sexual Assault, and Stalking: Findings from the British Crime Survey (Home Office Research Study 276)*. London: Home Office Research, Development and Statistics Directorate; 2004.
- Brewer N, Thomas KA, Higdon J. Intimate partner violence, health, sexuality, and academic performance among a national sample of undergraduates. *J Am Coll Health*. 2018;1–28. (online): Doi:10.1080/07448481.2018.1454929
- Busch-Armendariz NB, Wood L, Kammer, et al. *An Empirical Study of Prevalence and Perceptions of Sexual Harassment, Stalking, Dating/Domestic Abuse and Violence, and Unwanted Sexual Contact*. Austin, TX: Institute on Domestic Violence and Sexual Assault, The University of Texas at Austin; 2017.
- Mengo C, Black B. Violence victimization on a college campus: Impact on GPA and school dropout. *J Coll Student Retent Res Theory Practice*. 2016;18(2):234–248. 2016;
- Banyard V, Demers J, Cohn E, et al. Academic correlates of unwanted sexual contact, intercourse, stalking, and intimate partner violence: An understudied but important consequence for college students. *J Interpers Violence*, in press. doi:10.1177/088620517715022
- Voth Schrag R, Edmond T, Nordberg A. Understanding School sabotage in the lives of diverse survivors of intimate partner violence. *Violence Against Women*, in press.
- Breiding M, Black M, Ryan G. Prevalence and risk factors of intimate partner violence in eighteen U.S. states/territories, 2005. *Am J Prev Med*. 2008;34(2):112–118.
- Coker A, Bush H, Fisher B, et al. Multi-college bystander intervention evaluation for violence prevention. *Am J Prev Med*. 2016;50(3):295–302.
- Administrator-Researcher Campus Climate Collaborative (ARC3). *ARC3 Survey of Campus Climate regarding Sexual Misconduct*. Atlanta GA: Georgia State University; 2015
- Center for Research on Violence Against Women. *Campus Attitudes toward Safety (CATS) Technical Report*. Lexington, KY: The University of Kentucky; 2015
- Zweig J, Dank M, Yahner J, Lachman P. The rate of cyber dating abuse among teens and how it relates to other forms of teen dating violence. *J Youth Adolescence*. 2013;42(7):1063–1077. doi: 10.1007/s10964-013-9922-8.
- Koss M, Abbey A, Campbell R, et al. Revising the SES: A collaborative process to improve the assessment of sexual aggression and victimization. *Psychol Women Quart*. 2007;31(4):357–370.
- Prins A, Ouimette P, Kimerling R, et al. The primary care PTSD screen (PC-PTSD): Development and operating characteristics. *Prim Care Psych*. 2003;9(1):9–14. doi: 10.1185/135525703125002360
- Eaton WW, Muntaner C, Smith C, Tien A, Ybarra M. Center for Epidemiologic Studies depression scale: Review and revision (CESD and CESD-R). In Maruish ME, ed. *The Use of Psychological Testing for Treatment Planning and Outcomes Assessment*. 3rd ed. Mahwah, NJ: Lawrence Erlbaum; 2004;363–377
- Hanisch KA, Hulin CL. Job attitudes and organizational withdrawal: An examination of retirement and other voluntary withdrawal behaviors. *Journal of Vocat Behav*. 1990;37(1):60–78.
- Huerta M, Cortina LM, Pang JS, Torges CM, Magley VJ. Sex and power in the academy: Modeling sexual harassment in the lives of college women. *Pers Soc Psychol Bull*. 2006;32(5): 616–628. 2006;
- Tjaden P. *Violence and Threats of Violence against Women and Men in the United States, 1994–1996*. National Violence Against Women Survey.1996. <http://www.icpsr.umich.edu/icpsrweb/NACJD/studies/2566>.
- Johns Hopkins University. (2014). *It's on us Hopkins: Sexual Violence Climate Survey*. 2014. http://sexualassault.jhu.edu/_template_assets/documents/Its%20On%20Us%20Sexual%20Violence%20Climate%20Survey.pdf.
- Pascarella ET, Terenzini PT. *How College Affects Students*, Volume 2: A Third Decade of Research. San Francisco, CA: Jossey-Bass; 2005
- Salamonson Y, Andrew S, Everett B. Academic engagement and disengagement as predictors of performance in pathophysiology among nursing students. *Contemp Nurse*. 2009;32(1-2):123–132.
- Lee K, Carlin J. Multiple imputation for missing data: Fully conditional specification versus multivariate normal imputation. *Am J Epidemiol*. 2010;171(5):624–632. 2010;
- O'Brien R. A caution regarding rules of thumb for variance inflation factors. *Qual Quant*. 2007;41(5):673–690.

37. Cohen J, Cohen P, West SG, Akin LS. *Applied Multipole Regression/Correlation Analysis for the Behavioral Sciences*. 3rd ed. London: Routledge; 2003.
38. Hays D, Michel R, Bayne H, Colburn A, Myers J. Counseling with HEART: A relationship violence prevention program for college students. *J Coll Counsel*. 2015;18(1):49–65.
39. Borsky A, McDonnell K, Turner M, Rimal R. Raising a Red Flag on Dating Violence: Evaluation of a Low-Resource, College-Based Bystander Behavior Intervention Program. *J. Interpers Violence*, in press. online first, doi: [10.1177/0886260516635322](https://doi.org/10.1177/0886260516635322)
40. Peterson K, Sharps P, Banyard V, et al. An evaluation of two dating violence prevention programs on a college campus. *J. Interpers. Violence*, in press. Online first, doi: [10.1177/0886260516636069](https://doi.org/10.1177/0886260516636069)
41. Casey EA, Storer HL, Herrenkohl TI. Mapping a continuum of adolescent helping and bystander behavior within the context of dating violence and bullying. *Am J Orthopsych*, in press. Online first.
42. Holtfreter K, Boyd J. A coordinated community response to intimate partner violence on the college campus. *Victims Offenders*. 2006;1(2):141–157.
43. Sabina C, Verdiglione N, Zadnik E. Campus responses to dating violence and sexual assault: Information from university representatives. *J Aggress Maltreat T*. 2017;26(1):88–102.
44. Davies J, Lyon E. *Domestic Violence Advocacy: Complex Lives/Difficult Choices*. Thousand Oaks, CA: Sage; 2014
45. Goodman LA, Fauci JE, Sullivan C, DiGiovanni CD, Wilson JM. Domestic violence survivors' empowerment and mental health: Exploring the role of the alliance with advocates. *Am J. Orthopsychiat*. 2016;86(3):286–296.
46. Lumley T, Diehr P, Emerson S, Chen L. The importance of the normality assumption in large public health data sets. *Annu Rev Public Health*. 2002;23:151–169.
47. Hunt J, Eisenberg D. Mental health problems and help-seeking behavior among collegestudents. *J Adolescent Health*. 2010;46(1):3–10.
48. Jordan C, Combs J, Smith G. An exploration of sexual victimization and academic performance among college women. *Trauma Violence Abus*. 2014;15(3):191–200. 2014;