

2018

The Relationship between Physical Dating Violence and Alcohol and Drug Use among High School Students in an Urban Florida County

Stacey B. Griner

Michele Johnson Moore

Kristina Wilson

Follow this and additional works at: <https://digitalcommons.unf.edu/fphr>

Part of the [Public Health Commons](#), and the [Social and Behavioral Sciences Commons](#)

Recommended Citation

Griner, Stacey B.; Moore, Michele Johnson; and Wilson, Kristina (2018) "The Relationship between Physical Dating Violence and Alcohol and Drug Use among High School Students in an Urban Florida County," *Florida Public Health Review*: Vol. 15 , Article 9. Available at: <https://digitalcommons.unf.edu/fphr/vol15/iss1/9>

This Research Article is brought to you for free and open access by the Brooks College of Health at UNF Digital Commons. It has been accepted for inclusion in Florida Public Health Review by an authorized administrator of UNF Digital Commons. For more information, please contact [Digital Projects](#).

© All Rights Reserved

Footer Logo

The Relationship between Physical Dating Violence and Alcohol and Drug Use among High School Students in an Urban Florida County

Stacey B. Griner, MPH, CPH, RDH
Michele Johnson Moore, PhD
Kristina Wilson, PhD

ABSTRACT

Physical dating violence (PDV) is associated with a number of serious behavioral and psychological consequences for adolescents who have been victimized. However, there are few studies investigating the relationship between PDV and alcohol and drug use specifically among high school students in Florida. This study analyzes data from the 2013 Youth Risk Behavior Survey in an urban school district in Florida. Alcohol use, drug use, and sociodemographic factors were significantly associated with PDV. After controlling for individual factors, odds of experiencing PDV were higher among those who reported current alcohol use (aOR: 2.38, [95% CI 1.53-3.69]) and those who reported ever using methamphetamines (aOR: 2.87 [95% CI 1.14-7.23]) than those who did not. We discuss the implications for research to improve understanding of the antecedents, health impact, and methods of prevention for alcohol and drug use and PDV among Florida high school students.

Griner, S.B., Moore, M.J., & Wilson, K. (2018). The relationship between physical dating violence and alcohol and drug use among high school students in an urban Florida county. *Florida Public Health Review*, 15, 83-93.

BACKGROUND

Dating violence is experienced at disproportionate rates by adolescents and young adults (Black, 2011). Adolescent dating violence includes emotional, physical, and sexual violence, perpetrated by a romantic partner. In this paper, we focus specifically on physical dating violence (PDV), a type of intimate partner violence which includes being hit, pushed, slapped, kicked, or injured with an object or weapon by a romantic partner (Centers for Disease Control and Prevention [CDC], 2014). As many as 20% of women and 14% of men have been the victim of severe physical violence by a partner in their lifetime (Breiding, Smith, Basile, Walters, Chen & Merrick, 2014).

Most victims (78% of women, 58% of men) experienced this violence before age 25, with 23% of women and 14% of men who are victimized experiencing this violence before age 18 (Breiding et al., 2014). Results from the 2015 national Youth Risk Behavior Surveillance System (YRBS) indicate that almost one in ten (9.6%) high school students who had

dated reported experiencing PDV in the 12 months preceding the survey, with some areas reporting rates as high as 14.6%, and females (11.7%) experiencing higher rates than males (7.4%) (Kann et al, 2016). These rates are similar to those experienced by the college-age population, with a range reported of 9% to 16% across campuses (Cantor, Fisher, Chibnall, Townsend, Lee, Bruce, & Thomas, 2015). With these high rates across the country, PDV among high school students is a significant public health issue warranting attention.

Impact on Health

PDV is associated with a number of serious behavioral and psychological outcomes for adolescents who have been victimized. These outcomes include depressive symptoms, substance use, alcohol abuse, marijuana and tobacco use, increased likelihood of becoming pregnant, lower self-esteem, physical fighting, and eating-disordered behavior; including vomiting, diet pill usage, bingeing,

and use of laxatives (Exner-Cortens, Eckenrode, & Rothman, 2013; Haynie, Farhat, Brooks-Russell, Wang, Barbieri, & Iannotti, 2013; Howard, Debnam, Wang, 2013). In addition to physical and mental concerns, longitudinal studies of those victimized in early life show an increased risk of experiencing victimization in adulthood (Costa, Kaestle, Walker, Curtis, Day, Toumbourou, & Miller, 2015; Smith, White, & Holland, 2003).

Alcohol is the most commonly used and misused drug by young people, with 63.2% of high school students nationwide reported having at least one alcoholic drink in their life, 32.8% having consumed alcohol in the past 30 days and 13.2% having binge drank in the last two weeks (Johnston, 2014; Kann et al., 2016; Moss, Chen, & Yi, 2014). Also, binge drinking, defined as consuming five or more drinks of alcohol in a row, was reported by 17.7% of high school students nationwide, and alcohol use has been shown to play a role in PDV (Kann et al., 2016). Much of the research exploring relationships between PDV and alcohol use has been conducted among the college population. Overup et al. (2015) studied the relationship between PDV and alcohol use among college women, comparing two models: one used alcohol as a predictor for PDV and a second used PDV as a predictor of alcohol use. The data from this analysis supported PDV as a predictor for alcohol use, and experiences of PDV in young adulthood leading to alcohol misuse later in life (Overup et al., 2015). In another study of college-age adults presenting at the emergency room for treatment following a PDV incident, same day alcohol use was associated with increased risk of PDV (both victimization and perpetration; Rothman, Stuart, Winter, Wang, Bowen, Bernstein, & Vinci, 2012). These findings suggest that, among the college population, alcohol use may be both a risk factor for and outcome of PDV.

In addition to alcohol, studies of high school students have noted a relationship between substance and drug use and PDV (Parker & Bradshaw, 2015). The rates of drug use among this population are lower than alcohol use but are still significant. Results from the 2015 national YRBS data indicate that 38.6% of students had used marijuana in their life, and 21.7% report using marijuana in the past 30 days (Kann et al., 2016). Use of “harder” drugs is also significant among students, with 7.0% of students reporting ever using of inhalants, 5.0% ever using ecstasy, 5.2% ever using cocaine, and 3.0% ever using methamphetamines (Kann et al., 2016). Almost 23% of high school seniors reported use of marijuana within the past 30 days (Johnston, O’Malley, Miech, et al., 2014). Annual rates of “harder” substance use among high school students are also of concern with 28.4% of students reporting any illicit drug use, 3.8% reporting

use of inhalants, 2.5% reporting use of ecstasy, 1.8% reporting use of cocaine, and 1.0% reporting use of methamphetamines (Johnston, O’Malley, Miech, et al., 2014). Similarly, use of these substances in the past 30 days are also high among this population. Over 17% of students report the use of any illicit drug in the past 30 days, 1.5% report the use of inhalants, 0.8% report using ecstasy, 0.8% report using cocaine, and 0.4% report using methamphetamines (Johnston, O’Malley, Miech, et al., 2014). As students continue to use these substances, there is a need for research examining their relationship with PDV.

The few studies exploring PDV and substance use among high school students have noted significant associations between experiences of PDV and the use of alcohol (Haynie et al., 2013; Parker & Bradshaw, 2015; Parker, Debnam, Pas, Bradshaw, 2015; Temple & Freeman, 2011; Vagi, O’Malley-Olsen, Basile, Vivolo-Kantor, 2015). None of the previous research on high school students and PDV has included binge alcohol use, an important risk behavior indicated in studies of college students. Use of marijuana has been associated with interpersonal violence in previous studies (Moore & Stuart, 2005), and literature focusing on adolescents and students has indicated a relationship between marijuana use and perpetration of PDV (Reingle, 2011; Reyes, 2015; Rothman, 2010; Temple, 2013; Walton, 2009). Few studies have evaluated the relationship of PDV and substance use other than marijuana, however one study did find a relationship between non-medical use of prescription drugs (OxyContin, Percocet, Vicodin, codeine, Adderall, Ritalin, or Xanax) and PDV among high school students (Clayton, Lowry, Basile, Demissie, & Bohm, 2017). Moreover, previous literature indicates high rates of violence and victimization in the Southeastern US; adding to the need for further research on PDV risk factors among young people in this region (Marquart, Nannini, Edwards, Stanley, & Wayman, 2007).

PURPOSE

In this study, we explored the relationship between PDV and alcohol and drug use among high school youth completing the YRBS survey in a large, urban school district in Florida. The purpose of this study was to understand the relationship between PDV and alcohol and drug use among high school students in the county.

METHODS

The YRBS was created by the Centers for Disease Control and Prevention (CDC) in 1991 to monitor risk behaviors impacting the health of adolescents and young adults. The study monitors the prevalence of six large-scale categories that contribute to morbidity and

mortality. These categories are: sexual risk behaviors affecting teen pregnancy, HIV, and STD transmission; tobacco use; alcohol and substance use, including marijuana and other drugs; safety, violence, and unintentional injury; diet, nutrition, and weight, including physical activity; and chronic conditions, such as obesity and asthma (Brener, 2013). The YRBS is conducted nationally by the CDC as a school-based survey and can be conducted by states, territories, and urban school districts (Foti, Balaji, & Shanklin, 2011). The system focuses strictly on risk behaviors, rather than risk factors influencing these behaviors (Foti et al., 2011).

Sample

The YRBS uses a two-stage, cluster design to ensure a representative sample (Foti et al., 2011). In the first stage, schools are typically selected randomly, but in this county, all 21 public high schools, not including charter schools, were selected and agreed to participate. In the second stage, intact second-period classes were randomly selected from the schools. All students in the selected classes were eligible to take the survey. Prior to survey administration, passive parental permission and student assent were obtained. Passive parental permission for this study included a letter sent to parents and guardians informing them of the study, potential risks, and information on the method to retract student permission. All data collection took place during the spring semester of 2013. Students completed the voluntary and self-administered computer-scannable 95-item survey during one class period and data were sent to the CDC to be edited for missing information.

The CDC requires an overall response rate of at least 60% to perform data weighting at the county level. As the overall response rate was 77%, data were weighted to adjust for student nonresponse, sex, grade, and race. By weighting each questionnaire with the likelihood of sampling each student, bias is reduced by compensating for differing patterns of nonresponse. This weighting indicates that the survey is representative of high school students in this county and weighted results can be used to make inferences about the health risk behaviors of public high school students in this county.

Survey Measures

For this paper, five demographic variables, one item about violence, and two items about alcohol and five items about substance use were analyzed. The demographic items asked: What is your sex? (male, female); What grade are you in? (9th-12th individually, ungraded or other grade); What is your sexual orientation? (heterosexual/straight, gay or lesbian, bisexual, not sure); How old are you? (12 or younger,

13-17 individually, 18 or older); and What is your race? (American Indian or Alaska Native, Asian, black or African-American, Native Hawaiian or other Pacific Islander, white). For purposes of these analyses, race was collapsed into black, white, or other and age was collapsed in five categories (less than or equal to 14 years old, 15, 16, 17, greater than or equal to 18 years old).

Violence measures. The violence item indicating an experience of PDV read: "During the past 12 months, how many times did someone you were dating or going out with physically hurt you on purpose? (Count such things as being hit, slammed into something, or injured with an object or weapon.)" Response options for the PDV item were: I did not date or go out with anyone during the past 12 months; 0 times; 1 time; 2 or 3 times; 4 or 5 times; 6 or more times. Those who did not date anyone in the past 12 months (n = 1,197) were removed from analysis. Response options were collapsed and two groups were created: those who dated and did not experience PDV, and those who dated and did experience PDV.

Alcohol and drug measures. The two alcohol items assessed current alcohol use and binge drinking. The current alcohol use item read: "During the past 30 days, on how many days did you have at least one drink of alcohol?" The binge alcohol use item read: "During the past 30 days, on how many days did you have 5 or more drinks of alcohol in a row, that is, within a few hours?" Current marijuana use was measured by asking "During the past 30 days, how often did you use marijuana?" Lifetime measures of cocaine (During your life, how many times have you used any form of cocaine, including powder, crack, or freebase?), inhalants (During your life, how many times have you sniffed glue, breathed the contents of aerosol spray cans, or inhaled any paints or sprays to get high?), methamphetamines (During your life, how many times have you used methamphetamines (also called speed, crystal, crank, or ice?)) and ecstasy (During your life, how many times have you used ecstasy (also called MDMA)? were also utilized. Response options for items were: 0 days; 1 or 2 days; 3 to 5 days; 6 to 9 days; 10-19 days; 20-29 days; all 30 days. All alcohol and drug use questions were collapsed into dichotomous responses, with students reporting zero days comprising the no category.

Data Analysis

Descriptive statistics, including percentages and frequencies, were conducted for demographic variables, PDV, and alcohol and drug use variables. Bivariate tests were conducted to analyze the relationships between PDV, demographic variables, and alcohol and drug use. Crude odds ratios were computed to assess the independent effect of each

measure of alcohol and drug use on PDV. The adjusted regression model included demographic predictor variables (age, race, sexual orientation, year in school, and sex) and controlled for the other alcohol and drug use variables to estimate the odds of PDV. Odds ratios and 95% confidence intervals are presented for these regression models, with the reference categories denoted. These statistical analyses were performed using SPSS Version 21 (IBM, 2012).

RESULTS

The students in this sample were mostly female

(51.2%), black (45.8%), and heterosexual (86.3%). They were equally distributed among grades, with approximately one-fourth at each level. Fifteen percent of adolescents reported one or more experiences of PDV in the past year. Alcohol use within the past 30 days was reported by 38.3% of high school students, binge drinking was reported by 17.6%, use of marijuana in the past 30 days by 28%, lifetime use of cocaine by 8.2%, lifetime use of inhalants by 11.5%, lifetime use of methamphetamines by 6.7%, and lifetime use of ecstasy by 11.4% (Table 1).

Table 1. Sample descriptive statistics

Variable	Unweighted Frequency (n = 2,329)	Weighted Percentage
Sex		
Female	1,202	51.2
Male	1,101	48.8
Race		
Black	798	45.8
White	855	38.0
Other	607	16.1
Grade		
9th	664	28.4
10th	559	24.4
11th	610	24.0
12th	448	22.4
Ungraded or other grade	19	0.8
Age		
≤14 years	262	10.5
15 years	577	24.4
16 years	613	25.2
17 years	549	24.1
≥18 years	323	15.8
Sexual Orientation		
Heterosexual	1,968	86.3
Gay or lesbian	89	3.8
Bisexual	154	6.5
Not sure	78	3.3
PDV		
Yes	352	14.9
No	1,977	85.1

Current Alcohol		
Yes	775	38.3
No	1,194	61.7
Binge Alcohol		
Yes	424	17.6
No	1,764	82.4
Current Marijuana		
Yes	620	28.0
No	1,560	72.0
Ever Used Cocaine		
Yes	201	8.2
No	2,064	91.8
Ever Used Inhalants		
Yes	273	11.5
No	1,981	88.5
Ever Used Methamphetamines		
Yes	165	6.7
No	2,085	93.3
Ever Used Ecstasy		
Yes	269	11.4
No	1,970	88.6

Chi-square tests of independence were used to explore the bivariate relationship between variables. Significant differences in the percentage of students who reported experiencing PDV in the past 12 months were noted by sex ($p = .031$), race ($p = .041$), grade in school ($p < .000$), sexual orientation ($p < .000$), current

alcohol use ($p < .000$), and students who reported binge drinking ($p < .000$), current marijuana use ($p < .000$), ever using cocaine ($p < .000$), ever using inhalants ($p < .000$), ever using methamphetamines ($p < .000$), and ever using ecstasy ($p < .000$) (Table 2).

Table 2. Differences in percentage of students experiencing PDV by demographic variables and alcohol and drug use

	n (%)	X^2	df	p
Sex		6.32	1	.031*
Male	139 (12.7)			
Female	199 (16.4)			
Race		8.39	2	.041*
White	115 (13.1)			
Black	104 (13.6)			
Other	110 (19.1)			
Grade		39.26	4	< .000*
9 th	92 (13.9)			
10 th	77 (12.9)			
11 th	89 (15.1)			

12 th	77 (16.0)			
Ungraded or other grade	11 (11.7)			
Age		4.28	4	.445
≤14 years	50 (18.0)			
15 years	76 (12.6)			
16 years	92 (15.2)			
17 years	79 (15.0)			
≥18 years	54 (15.4)			
Sexual Orientation		126.54	3	< .000*
Heterosexual	221 (11.1)			
Gay or lesbian	34 (34.3)			
Bisexual	46 (30.3)			
Not sure	33 (42.6)			
Current Alcohol		103.62	1	< .000*
Yes	178 (22.2)			
No	75 (6.6)			
Binge Alcohol		56.30	1	< .000*
Yes	110 (25.4)			
No	191 (11.0)			
Current Marijuana		64.15	1	< .000*
Yes	144 (22.6)			
No	153 (9.6)			
Ever Used Cocaine		58.94	1	< .000*
Yes	97 (45.5)			
No	241 (11.9)			
Ever Used Inhalants		82.66	1	< .000*
Yes	100 (33.3)			
No	234 (12.1)			
Ever Used Methamphetamines		174.80	1	< .000*
Yes	87 (51.1)			
No	247 (11.9)			
Ever Used Ecstasy		137.51	1	< .000*
Yes	111 (39.2)			
No	224 (11.5)			

Note: Columns show percent of students in each response category reporting yes for PDV (Physical dating violence).

*Statistically significant at $p < .05$.

When examining the influence of substance use on PDV, results from the unadjusted regression model showed significantly higher odds of experiencing PDV for those who reported current alcohol use, binge alcohol use, current marijuana use, ever using inhalants, ever using methamphetamines, and ever using ecstasy than those who did not use these drugs.

There were no significant differences in PDV by cocaine use. After controlling for the effects of sex, race, sexual orientation, year in school, age, and alcohol and drug use, regression models showed increased odds of PDV for individuals who reported current alcohol use (aOR: 2.38 [95% CI 1.53-3.69]) compared to those who did not use alcohol. Similarly,

after controlling for individual factors and other alcohol and drug use, students who reported ever using methamphetamines had higher odds of PDV (aOR:

2.87 [95% CI 1.14-7.23]) than those who have never used methamphetamines. Table 3 shows the results from the logistic regression models.

Table 3. Crude (OR) and adjusted odds ratios (aOR) for PDV and alcohol and drug use

	Crude OR (95% CI)	Adjusted OR (95% CI) ^a
Current Alcohol Use^b		
Yes	4.06 (2.88-5.73)	2.38 (1.53-3.69)
No	Reference	Reference
Binge Alcohol Use^c		
Yes	2.76 (2.07-3.68)	1.13 (0.72-1.77)
No	Reference	Reference
Current Marijuana^d		
Yes	2.74 (2.02-3.72)	1.24 (0.81-1.91)
No	Reference	Reference
Ever Used Cocaine^e		
Yes	1.55 (0.92-2.61)	1.10 (0.56-2.15)
No	Reference	Reference
Ever Used Inhalants^f		
Yes	1.58 (1.02-2.43)	1.08 (0.63-1.86)
No	Reference	Reference
Ever Used Methamphetamines^g		
Yes	2.72 (1.59-4.65)	2.87 (1.14-7.23)
No	Reference	Reference
Ever Used Ecstasy^h		
Yes	2.09 (1.32-3.32)	1.23 (0.67-2.27)
No	Reference	Reference

Note.

Reference group are those who reported no to experiencing PDV.

Bold indicates statistical significance at $p < .05$.

^a Adjusted odds ratios control for sex, sexual orientation, race, year in school, and age.

^b Controls for binge alcohol use, current marijuana use, use of cocaine, use of inhalants, use of methamphetamines, and use of ecstasy

^c Controls for current alcohol use, current marijuana use, use of cocaine, use of inhalants, use of methamphetamines, and use of ecstasy

^d Controls for current alcohol use, binge alcohol use, use of cocaine, use of inhalants, use of methamphetamines, and use of ecstasy

^e Controls for current alcohol use, binge alcohol use, current marijuana use, use of inhalants, use of methamphetamines, and use of ecstasy

^f Controls for current alcohol use, binge alcohol use, current marijuana use, use of cocaine, use of methamphetamines, and use of ecstasy

^g Controls for current alcohol use, binge alcohol use, current marijuana use, use of cocaine, use of inhalants, and use of ecstasy

^h Controls for current alcohol use, binge alcohol use, current marijuana use, use of cocaine, use of inhalants, and use of methamphetamines

DISCUSSION

This study adds important information to the literature on adolescent dating violence and victimization experiences particularly within this large, urban county in Florida. It explores PDV and the relationship with alcohol and drug use among high school students. Results from this study indicate associations between experiences of PDV with sex, sexual orientation, race, grade, and alcohol and drug use, and increased odds of PDV experienced by those who report current alcohol use and those who have ever used methamphetamines.

Of those who had dated or gone out with someone in the past 12 months, 15% of high school students in this county have experienced PDV. The rates of PDV

reported by students in this county are higher than the national YRBS data from the same year, 9.6% (Kann et al., 2016). The differences in the rates may be partly explained by the demographics of the county analyzed in this study. Almost 27% of residents in this county under the age of 18 are living in poverty, compared to the state average of 24% and the national average of 13.5%, and there are higher rates of unemployment, crime, and admissions to prison than Florida as a whole (Office of Economic and Demographic Research, 2014; Proctor, Semega, & Kollar, 2016). Previous studies have linked PDV to history of family criminality, poverty, and low socioeconomic status (Costa et al., 2015).

There were significant findings for PDV when

explored by demographic variables. Females in this sample reported significantly higher rates of PDV than males, consistent with national findings (Kann et al., 2016). Rates of PDV were significantly higher among sexual minorities when compared to heterosexual students, consistent with previous studies of the high school population (Edwards, 2015). There is also a relationship between race and PDV, with students in the “other” category reporting higher rates than black and white students. However, previous studies of national YRBS data found the highest PDV rates were among Hispanic and white females compared to black females (Kann et al., 2016; Thompson, McGee, & Mays, 2012). These high rates among specific populations indicate a need to target prevention efforts toward those most impacted by violence. Rates of PDV were inconsistent in direction by both age and grade level, with the highest rates of PDV occurring among 12th graders and those age 14 and under. These findings by grade level were consistent with national studies that have found linear increases in PDV experiences, with higher rates those in higher grades (Kann et al., 2016). However, previous literature has noted that PDV experiences also linearly increase by age, which is not confirmed by this study (Kann et al., 2016). However, because the age categories used in this study include those who are 14 or younger, this may indicate that PDV is occurring in the relationships of younger students. This is an area warranting further research.

The results of the final adjusted regression analysis showed a significant association between PDV and current alcohol use. Those who report current alcohol use were more than two times as likely to have experienced PDV than those who did not use alcohol. These findings are consistent with the few other studies examining the relationship between alcohol use and PDV among high school students in addition to adding documentation of the relationship between PDV and alcohol use.

However, the results of the final adjusted regression model did not find an association between PDV and marijuana use as was noted in Parker and colleagues study (Parker, Debnam, Pas, & Bradshaw, 2016). An unexpected finding from these data is the relationship between PDV and the use of methamphetamines. While the literature focusing on the relationship between PDV and hard drug use among high school students is sparse, one previous study noted that those reporting the use of cocaine, methamphetamines, heroin, and inhalants were more likely to be victims of PDV and sexual dating violence (Higgins, Marcum, Nicholson, & Weiner, 2017) and another indicated a relationship between the perpetration of PDV and “harder” drug use (cocaine, LSD, heroin, ecstasy, or other drugs) (Reyes, Foshee, Tharp, Ennett, & Bauer,

2015). Furthermore, studies focusing on victimization rather than perpetration have shown a relationship between PDV experiences and polysubstance use, including a combination of alcohol and substances use (Parker & Bradshaw, 2015) and non-medical use of prescription medications (Clayton, Lowry, Basile, Demissie, & Bohm, 2017).

Strengths associated with this study include the large sample size, and racial and ethnic diversity of the sample. In addition, there was a 100% school response rate and a 77% student response rate. These response rates and the weighting of the data provide results that are generalizable to this Florida county. This study also includes equal representation from all four grades in high school.

However, the results of this study must be interpreted while considering the associated limitations. Although it is unclear from this study whether alcohol and drug use is a risk factor or a consequence of PDV, this analysis does indicate a relationship between the two. The current study is limited by its cross-sectional nature, as have been the previously cited studies (Kann et al., 2016; Vagi, O’Malley-Olsen, Basile, Vivolo-Kantor, 2015; Tomasula, Anderson, Littleton, & Riley-Tillman, 2012). Due to this, causal directions cannot be determined and alcohol and drug use could be either a risk factor or a consequence of PDV. Second, although the study was anonymous, self-report bias may have had an impact on the results. However, YRBS survey data has been shown to be valid and reliable (May & Klonsky, 2011; Foti et al., 2011), and studies show adolescents provide reliable data (Brenner et al., 2013). Also, the YRBS assesses only risk behaviors and does not evaluate risk factors. There are many risk factors contributing to victimization and alcohol and drug use that could lead to a better understanding of PDV, but were outside of the focus of this study, such as acceptance of violence, poverty, delinquency, low self-esteem, low academic achievement, isolation, other drug use, and mental health concerns (Tharp et al., 2013; Capaldi, Knoble, Shortt, & Kim, 2012). Furthermore, future studies would benefit from consistent definitions of PDV and alcohol and drug use, such as those from the CDC YRBS used in this analysis or measures from national surveys similar to the YRBS.

IMPLICATIONS FOR PUBLIC HEALTH

The need to prevent victimization has recently come to national attention as a public health issue. *Healthy People 2020* has added health objectives to reduce the rate of adolescent and young adult victimization from crimes of violence across the country (Office of Disease Prevention and Health Promotion [ODPHP], 2016). However, these objectives are still considered

developmental due to the need to identify potential data sources to set baselines and track progress. Using nationally standardized items to assess PDV, such as those used for this study from the YRBS, will allow for local/state authorities to compare rates to national and other like populations.

Specific to Florida, the 2014 Florida Statutes on public K-12 education include a description of required instruction in comprehensive health education programs, which includes discussion of the effects of alcohol use on the body and mind, and substance use and abuse (Title XLVIII, 2016). Additionally, the health education curriculum for students in middle and high school (grades 7-12) must include a component that address dating violence and abuse, including definitions, warning signs of violence and other abusive behaviors, prevention of dating violence, and resources in the community for victims of PDV (Title XLVIII, 2016). Previous studies of Florida students have shown those who receive sex education are less likely to use alcohol than those who did not, which may indicate a leverage point to improve sexual health, PDV, and alcohol use (Moton & Tawk, 2016). Research to better understand the antecedents, health impacts, and methods of prevention for both PDV and alcohol use are still needed. Future studies should further evaluate these relationships using longitudinal data to determine directionality between the variables and assess causation. Additionally, evaluating risk factors at individual, relational, community, and societal levels that influence victimization and considering the interaction with sex, sexual orientation, race, and grade level can improve understanding of prevention approaches.

This research study adds to the sparse literature on the relationship between alcohol use and PDV among high school students. The high rates of PDV among high school students illustrate the need for prevention programming among adolescents, specifically in Florida. The documented relationship between victimization and alcohol and drug use provides implications for both violence and alcohol prevention programs. In Florida, the relationship between alcohol and drug use and PDV should be included in health and sexuality education programming. Discussion of these topics regularly may help adolescents better understand the negative consequences associated, and help aggressors and perpetrators understand the severity of their actions. Programs should also focus on alcohol and drug use as a potential coping mechanism during counseling for victims of PDV and screen victims to better identify those with potential alcohol and drug abuse problems to ultimately reduce dating violence among high school students.

ACKNOWLEDGEMENT

This research was conducted with support through CDC grant #1U87PS004140-01.

REFERENCES

- Black, M., Basile, K., Breiding, M., Smith, S., Walters, M., Merrick, M., et al. (2011). *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. Retrieved from https://www.cdc.gov/violenceprevention/pdf/nisvs_report2010-a.pdf.
- Breiding, M., Smith, S., Basile, K., Walters, M., Chen, J., & Merrick, M. (2014). Prevalence and characteristics of sexual violence, stalking, and intimate partner violence victimization - National Intimate Partner and Sexual Violence Survey, 2011. *Morbidity and Mortality Weekly Report Surveillance Summaries* 63(SS08), 1-18.
- Brener, N., Kann, L., Shanklin, S., Kinchen, S., Eaton, D., Hawkins, H., & Flint, K. (2013). Methodology of the Youth Risk Behavior Surveillance System - 2013. *Morbidity and Mortality Weekly Report*, 62(RR01), 1-23.
- Cantor, D., Fisher, B., Chibnall, S., Townsend, R., Lee, H., Bruce, C., & Thomas, G. (2015). Report on the AAU Campus Climate Survey on Sexual Assault and Sexual Misconduct. The Association of American Universities. Retrieved from https://www.aau.edu/sites/default/files/%40%20Files/Climate%20Survey/AAU_Campus_Climate_Survey_12_14_15.pdf.
- Capaldi, D., Knoble, N., Shortt, J., & Kim, H. (2012). A systematic review of risk factors for intimate partner violence. *Partner Abuse*, 3(2), 231-80.
- Centers for Disease Control and Prevention (CDC). (2014). Understanding Teen Dating Violence: Fact Sheet 2014. Atlanta, GA: CDC. Retrieved from <https://www.cdc.gov/violenceprevention/pdf/teen-dating-violence-2014-a.pdf>.
- Clayton, H.B., Lowry, R., Basile, K.C., Demissie, Z., & Bohm, M.K. (2017). Physical and sexual dating violence and nonmedical use of prescription drugs. *Pediatrics*, 140(6), 1-8.
- Costa, B., Kaestle, C., Walker, A., Curtis, A., Day, A., Toumbourou, J., & Miller, P. (2015). Longitudinal predictors of domestic violence perpetration and victimization: A systematic review. *Aggression and Violent Behavior*, 24, 261-272.
- Edwards, K.M. (2015). Incidence and outcomes of dating violence victimization among high school youth: The role of gender and sexual orientation. *Journal of Interpersonal Violence*, 1-19.
- Exner-Cortens, D., Eckenrode, J., & Rothman, E.

- (2013). Longitudinal associations between teen dating violence victimization and adverse health outcomes. *Pediatrics*, 131(1), 71-78.
- Foti, K., Balaji, A., & Shanklin, S. (2011). Uses of Youth Risk Behavior Survey and School Health Profiles data: Applications for improving adolescent and school health. *Journal of School Health*, 81(6), 345-354.
- Griffin, M., Wardell, J., & Read, J. (2013). Recent sexual victimization and drinking behavior in newly matriculated college students: A latent growth analysis. *Psychology of Addictive Behaviors*, 27(4), 966-973.
- Haynie D.L., Farhat T., Brooks-Russell A., Wang J., Barbieri B., & Iannotti R.J. (2013). Dating violence perpetration and victimization among US adolescents: Prevalence, patterns, and associations with health complaints and substance use. *Journal of Adolescent Health*, 53, 194-201.
- Higgins, G.E., Marcum, C.D., Nicholson, J., & Weiner, P. (2017). Predictors of physical and dating violence in middle and high school students in the United States. *Crime & Delinquency*, 64(5), 1-25. <https://doi.org/10.1177/0011128717719428>.
- Howard, D., Debnam, K., & Wang, M. (2013). Ten-year trends in physical dating violence victimization among US adolescent females. *Journal of School Health*, 83(6), 389-399.
- IBM Corp. (2012). *IBM SPSS Statistics for Windows*, Version 21.0. Armonk, NY: IBM Corp.
- Johnston, L., O'Malley, P., Miech, R., Bachman, J., & Schulenberg, J. (2014). *Monitoring the Future national results on drug use: 1975-2013: Overview, key findings on adolescent drug use*. Ann Arbor, MI: Institute for Social Research, The University of Michigan.
- Kann, L., McManus, T., Harris, W., Shanklin, S., Flint, K., Hawkins, J., et al. (2016). Youth Risk Behavior Surveillance — United States, 2015. *Morbidity and Mortality Weekly Report Surveillance Summaries*, 65(6), 1-174.
- Lipsky, S., Kernic, M., Qiu, Q., Wright, C., & Hasin, D. (2014). A two-way street for alcohol use and partner violence: Who's driving it? *Journal of Family Violence* (29)8, 815-828.
- Marquart, B., Nannini, D., Edwards, R., Stanley, L., & Wayman, J. (2007). Prevalence of dating violence and victimization: regional and gender differences. *Adolescence*, 42(168), 645-57.
- May, A., & Klonsky, E. D. (2011). Validity of suicidality items from the Youth Risk Behavior Survey in a high school sample. *Assessment*, 18(3), 379-381.
- Moore, T.M., & Stuart, G.L. (2005). A review of the literature on marijuana and interpersonal violence. *Aggression and Violent Behavior*, 10(2), 171-192.
- Moss, H. B., Chen, C. M., & Yi, H. Y. (2014). Early adolescent patterns of alcohol, cigarettes, and marijuana polysubstance use and young adult substance use outcomes in a nationally representative sample. *Drug and Alcohol Dependence*, 136, 51-62.
- Moton, B., & Tawk, R. (2016). The relationship of sexual health education and sexual health risk behavioral outcomes among Florida teens. *Florida Public Health Review*, 13, 1-5.
- Office of Economic and Demographic Research. (2014). Area Profiles: Duval County. Retrieved from: <http://edr.state.fl.us/Content/>
- Overup, C., DiBello, A., Brunson, J., Acitelli, L., & Neighbors, C. (2015). Drowning the pain: Intimate partner violence and drinking to cope prospectively predict problem drinking. *Addictive Behaviors*, 41, 152-161.
- Parker, E., & Bradshaw, C. (2015). Teen dating violence victimization and patterns of substance use among high school students. *Journal of Adolescent Health*, 57(4), 441-447.
- Parker, E., Debnam, K., Pas, E., & Bradshaw, C. (2015). Exploring the link between alcohol and marijuana use and teen dating violence victimization among high school students: The influence of school context. *Health Education and Behavior*, 42(5), 528-536.
- Peleg-Oren, N., Cardenas, G., Comerford, M., & Galea, S. (2013). Exploratory study on the association between interpersonal violence experiences and alcohol use among adolescents. *Social Work Research*, (37)3, 277-285.
- Proctor, B., Semega, J., & Kollar, M. (2016). Income and poverty in the United States: 2015. United States Census Bureau. Retrieved from: <http://www.census.gov/content/dam/Census/library/publications/2016/demo/p60-256.pdf>
- Reingle, J.M., Staras, S.A., Jennings, W.G., Branchini, J., & Maldonado-Molina, M.M. (2011). The relationship between marijuana use and intimate partner violence in a nationally representative, longitudinal sample. *Journal of Interpersonal Violence*, 27(8), 1562-1578.
- Reyes, H.L., Foshee, V.A., Tharp, A.T., Ennett, S.T., & Bauer, D.J. (2015). Substance use and physical dating violence: The role of contextual moderators. *American Journal of Preventive Medicine*, 49(3), 467-475.
- Rothman, E., Johnson, R.M., Azreal, D., Hall, D.M., & Weinberg, J. (2010). Perpetration of physical assault against dating partners, peers, and siblings among a locally representative sample of high school students in Boston, Massachusetts. *Archives of Pediatric and Adolescent Medicine*, 164, 1118-1124.

- Rothman, E., Stuart, G., Winter, M., Wang, N., Bowen, D., Bernstein, J., & Vinci, R. (2012). Youth alcohol use and dating abuse victimization and perpetration: A test of the relationships at the daily level in a sample of pediatric emergency department patients who use alcohol. *Journal of Interpersonal Violence*, 27(15), 2959-79.
- Shorey, R., Fite, P., Choi, H., Cohen, J., Stuart, G., & Temple, J. (2015). Dating violence and substance use as longitudinal predictors of adolescents' risky sexual behavior. *Prevention Science*, 16(6), 853-861.
- Smith, P., White, J., & Holland, L. (2013). A longitudinal perspective on dating violence among adolescent and college-age women. *American Journal of Public Health* 93, 1104-1109.
- Temple, J.R., & Freeman, D.H. (2011). Dating violence and substance use among ethnically diverse adolescents. *Journal of Interpersonal Violence*, 26, 701-718.
- Temple, J.R., Shorey, R.C., Fite, P., Stuart, G., & Le, V.D. (2013). Substance use as a longitudinal predictor of the perpetration of teen dating violence. *Journal of Youth and Adolescence*, 42(4), 596-606.
- Tharp, A., DeGue, S., Valle, L., Brookmeyer, K., Massetti, G., & Matjasko, J. (2013). A systematic qualitative review of risk and protective factors for sexual violence perpetration. *Trauma Violence Abuse*, 14(2), 133-167.
- Thompson, N., McGee, R., & Mays, D. (2012). Race, ethnicity, substance use, and unwanted sexual intercourse among adolescent females in the United States. *Western Journal of Emergency Medicine*, 13(3), 283-288.
- Title XLVIII of the Florida Statutes. (2016). Public K-12 Education Code, § 1003.42.
- Tomasula, J., Anderson, L., Littleton, H., & Riley-Tillman, L. (2012). The association between sexual assault and suicidal activity in a national sample. *School Psychology Quarterly*, 27(2), 109-119.
- U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. (2016). Adolescent Health. In: *Healthy People 2020*. Retrieved from <http://www.healthypeople.gov/2020/topics-objectives/topic/Adolescent-Health/objectives>.
- Vagi, K., O'Malley-Olsen, E., Basile, K., & Vivolo-Kantor, A. (2015). Teen dating violence (physical and sexual) among US high school students: Findings from the 2013 National Youth Risk Behavior Survey. *Journal of the American Medical Association Pediatrics*, 169(5), 474-482.
- Walton, M.A., Chermack, S.T., Shope, J., Bingham, C.R., Zimmerman, M.A., Blow, F.C., & Cunningham, R.M. (2010). Effects of a brief intervention for reducing violence and alcohol misuse among adolescents: A randomized controlled trial. *Journal of the American Medical Association*, 304, 527-535.

Stacey B. Griner (corresponding author), doctoral student, Department of Community and Family Health, College of Public Health, University of South Florida, Tampa, FL. Email at: staceygriner@health.usf.edu. Michele Johnson Moore, Professor, Department of Public Health, Brooks College of Health University of North Florida, Jacksonville, FL. Email at: mmoore@unf.edu. Kristina Wilson, Director, Office of Performance Improvement Florida Department of Health in Duval County Office of Performance Improvement, Jacksonville, FL. Email at: kristina.wilson@flhealth.gov.

Copyright 2018 by the *Florida Public Health Review*.