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## School Absenteeism among Middle School Students with High Exposure to Violence

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### Abstract

**Objective:** Chronic school absenteeism is linked to failure to graduate high school and poor health in adulthood. Contextual factors associated with absenteeism may be underrecognized in school and clinical settings. We examined the prevalence of self-reported absenteeism and violence exposure and their association among middle school students with identified risk of trauma.

**Methods:** We analyzed baseline data from a dating violence prevention program. Participants completed surveys identifying lifetime exposure to 10 types of violence and past 30-day absence. Violence exposure and absenteeism were summarized and compared across demographic groups. Generalized linear models examined associations between 1) any history of violence exposure, 2) each type of violence exposure, and 3) summed exposures to different types of violence, and frequent absenteeism ( 2 absences in past 30 days).

**Results:** 45.5% of participants (overall n=499) reported frequent absenteeism and 71.5% reported violence exposure. Any self-reported violence exposure was associated with absenteeism (aRR=1.43, 95%CI: 1.06–1.92). However, no specific type of violence exposure predicted absenteeism. Comparing summed exposures to different types of violence to no violence exposure, exposure to 1 type of violence was associated with absenteeism (aRR=1.59, 95%CI: 1.15–2.20), with no evidence of stronger associations with greater exposure (2–3 types: aRR=1.37, 95%CI: 1.00–1.88; 4 types: aRR=1.31, 95%CI: 0.98–1.74).

**Conclusions:** Youth in this sample reported both high rates of violence exposure and absenteeism. Prior violence exposure was associated with absenteeism. Resources and contextual support for youth exposed to family or community violence may play a role in school attendance, emphasizing need for trauma-sensitive approaches to absenteeism.

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Declaration of Competing Interest

The authors have no financial relationships or conflicts of interest to report.

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## Keywords

Violence; adverse childhood experiences; schools; absenteeism; healthcare disparities

## INTRODUCTION

Over 8 million U.S. students, approximately 16% of the student population, are chronically absent from school.<sup>1,2</sup> Chronic absenteeism is defined by the U.S. Department of Education as missing more than 10% of days in a school year for any reason, including excused and unexcused absences and suspensions.<sup>1</sup> Chronic absenteeism begins as early as kindergarten and peaks in adolescence, affecting up to 1 in 5 high school students.<sup>1</sup> Attending and meaningfully engaging in school is a critical component of adolescence with broad implications for future educational and career opportunities, socioeconomic outcomes, and health and wellbeing.<sup>3</sup> Students who are chronically absent suffer poor educational outcomes including decreased math and reading proficiency, grades, and test scores.<sup>3</sup> By the middle school years, chronic absenteeism is strongly associated with failure to graduate high school and decreased enrollment and persistence in post-secondary education.<sup>4</sup> In adolescence, low academic achievement is associated with behaviors that endanger health including substance use, risky sexual behaviors, low physical activity, and unhealthy diet.<sup>5</sup> Adults with low educational attainment have worse health outcomes<sup>6</sup> including higher rates of type 2 diabetes and depression,<sup>7</sup> and overall increased mortality<sup>8</sup> compared to those with higher educational attainment.

Decreasing chronic absenteeism can advance adolescent health and improve health trajectories throughout the life course. Recognizing this potential, the Institute of Medicine identified high school graduation rate as 1 of 15 core measures of health and health care progress,<sup>9</sup> and the U.S. Department of Health and Human Services included reducing chronic absence among early adolescents and increasing the proportion of high school students who graduate in 4 years as Healthy People 2030 national objectives.<sup>10</sup> The American Academy of Pediatrics also acknowledged the link between attendance and health with a policy statement detailing the integral role of health providers in universal primary prevention of chronic absenteeism and individualized intervention for school-aged youth experiencing poor attendance.<sup>11</sup> The Centers for Disease Control and Prevention's Whole School, Whole Community, Whole Child model situates such public health approaches within a larger coordinated effort aligning schools, families, and communities and emphasizes the importance of a child's environment in concurrently promoting health, development, and school success.<sup>12</sup>

Existing knowledge of the factors that contribute to chronic absenteeism support this critical importance of the physical and psychosocial environment across individual, family, school, community, and societal contexts. At the individual level, acute and chronic illness (e.g., influenza,<sup>13</sup> asthma<sup>14</sup>) and mental health conditions (e.g., anxiety, depression<sup>15</sup>) are frequent causes of chronic absenteeism. Contextual factors including poor access to medical or dental care<sup>16</sup> worsen chronic absenteeism in affected youth. Risk for chronic absenteeism is also increased by factors at the level of the family (e.g., poor caregiver physical or

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mental health<sup>17</sup>), school (e.g., chaotic school environment,<sup>18</sup> bullying<sup>19</sup>), and community (e.g., lack of transportation<sup>20</sup>). Overlying structural factors which contribute to concentrated disadvantage compound the risk for chronic absenteeism resulting in disproportionate rates among youth living in poverty or identified as Black, Hispanic, American Indian, or Pacific Islander.<sup>1,2</sup>

Youth in areas with concentrated disadvantage also have increased exposure to violence, a significant cause of adolescent morbidity and mortality that disproportionately affects Black males in urban environments.<sup>21</sup> The observed disparities in chronic absenteeism among minoritized youth may occur as a function of their differential exposure to violence. In related studies of adverse childhood experiences (ACEs), the number of exposures to trauma, abuse, or familial adversity in a child's early environment has been associated with poor health and educational outcomes.<sup>22,23</sup> However, some researchers have questioned the salience of using a summative approach focused on the number of ACEs and the extent to which the original ACEs measure is relevant in communities where chronic stressors of poverty and structural inequities are pervasive.<sup>24</sup> The expanded ACEs survey, which includes a measure of witnessing violence, highlights the importance of accounting for experiences of youth in areas with high levels of community violence.<sup>24</sup> Importantly, youth in areas with concentrated disadvantage may experience multiple modes of violence in various settings as witnesses, victims, or perpetrators,<sup>25</sup> which can uniquely predict school outcomes.<sup>26</sup>

Recent studies have revealed associations between exposure to the expanded ACEs,<sup>24</sup> specifically violence exposure, and chronic absenteeism.<sup>27,28</sup> However, these studies included samples in which rates of violence exposure (9–9.4%) and chronic absenteeism (4–4.1%) were low and focused on only one measure of violence exposure, parent-reported history of witnessing or experiencing neighborhood violence. These findings may not adequately represent experiences of youth exposed to high levels of family, school, or community violence who may have different outcomes, strengths, and needs.<sup>25</sup> To foster health and educational equity, we require more nuanced understanding of the relationship between exposure to individual types of violence, cumulative violence exposure, and absenteeism among disproportionately affected groups. To explore the impact of these varied individual experiences of violence more deeply, we examined the prevalence and demographic correlates of absenteeism and witnessed or experienced violence and tested associations between absenteeism and violence exposure among youth with high rates of both.

## METHODS

### Study Design and Context

We analyzed baseline data from an ongoing cluster-randomized trial of a school-based teen dating violence (TDV) and sexual violence (SV) prevention program in southwestern Pennsylvania ([NCT04095429](#)). The larger trial will evaluate the effectiveness of a TDV/SV prevention program called Expect Respect to prevent use of violence among middle school students with prior exposure to trauma or violence. Most of the 36 middle schools in the trial are in Allegheny County which contains 43 school districts with 276 public schools

serving 144,520 students grades K-12. According to the U.S. Department of Education 2017–18 Civil Rights Data Collection, rates of chronic absenteeism as determined by school administrative data vary considerably throughout the county with elevated rates in Pittsburgh (35.1%) and surrounding urban school districts (up to 38%).<sup>1</sup> This study was approved by the University of Pittsburgh institutional review board.

### **Recruitment and Data Collection**

Participants are 7<sup>th</sup> and 8<sup>th</sup> grade students referred by school personnel based on known or suspected violence exposure or history of trauma (including parental incarceration or substance use). Once referred, students and parents received information about the study and consent forms. Students who returned signed parental consent forms provided assent and were enrolled in the study. Participants completed online surveys using school computers or research team-provided electronic notepads between October 2019 and January 2020. We utilized a respondent-generated personal code technique to allow anonymous survey collection and enhance the reliability of self-report responses to sensitive questions.<sup>29</sup> All school-based data collection was completed prior to local school closures related to the COVID-19 pandemic.

### **Independent Variables**

The primary predictor was self-reported lifetime violence exposure as measured by a version of the Trauma History Questionnaire modified to include 10 of 24 questions deemed most relevant to adolescents (Table 1).<sup>30</sup> Participants indicated yes/no responses to questions assessing their prior exposure to different types of violence including violent crimes, physical or sexual violence, and witnessed violence. To broadly examine prior experiences of violence, we defined violence exposure in 3 ways: 1) any history of violence exposure (yes/no), 2) each of 10 types of violence exposure (yes/no), and 3) summed exposures to different types of violence categorized as exposure to 0, 1, 2 to 3, or 4 or more types of violence.

### **Dependent Variable**

The primary outcome was absenteeism. Participants were asked, “During the past 30 days, how many days of school did you miss for any reason including excused and unexcused absences?” and indicated their response as 0 days, 1 day, 2 or 3 days, 4 or 5 days, or 6 or more days. Frequent absenteeism was operationalized as self-reported past 30-day school absence of 2 or more days. This threshold was chosen as it is equivalent to 10% missed school time, the definition of chronic absenteeism used by the U.S. Department of Education.<sup>1</sup> Additionally, missing 2 school days per month at the beginning of the school year predicts ongoing chronic absenteeism throughout the remainder of the year.<sup>31</sup>

### **Covariates**

Participants self-identified all demographic characteristics including age (in years), race and ethnicity, gender identity, sexual orientation, and caregiver education level. Race/ethnicity was determined by the questions “What is your race?” and “Are you Hispanic or Latino?” and categorized as Black/non-Hispanic, white/non-Hispanic, Hispanic, or multiracial/other.

Gender identity was determined by the question “What terms best describe your gender identity?” and was categorized as male, female, or transgender/another gender identity/unsure. Sexual orientation was determined by the question “Which of the following best describes you?” and was categorized as heterosexual/mainly heterosexual or LGBTQ (including participants self-identified as gay, lesbian, bisexual, queer, asexual, or pansexual). Caregiver educational level was determined by the question “What is the highest grade or year of school any of your parents or guardians (the adults that take care of you at home, such as mom or dad) completed?” and categorized as did not graduate high school, graduated high school/some college or technical school, or graduated from college or technical school.

### Statistical Analysis

Descriptive statistics summarized relevant demographic characteristics, self-reported violence exposure, and absenteeism. Chi-square tests compared frequencies of self-reported violence exposure and absenteeism across demographic groups. Generalized linear models based on a log link function and a binomial outcome accounting for clustering at the school level were used. Separate models were used to examine the association between 1) any history of violence exposure, 2) each of 10 individual types of violence exposure, and 3) summed exposures to different types of violence, and frequent absenteeism. All models were adjusted for a priori selected covariates of age, race/ethnicity, and gender identity based on association with absenteeism in the literature.<sup>1,32</sup> The statistical models allowed calculation of adjusted estimated risk ratios and 95% confidence intervals to account for the high prevalence of the outcome within this sample.<sup>33</sup> All analyses were completed using SAS version 9.4 (SAS Institute, Cary, NC).

## RESULTS

Among 587 students who completed surveys, the study sample included all participants with available data for the outcome variable of absenteeism (15% missing absenteeism status, analytic n=499). Participants who answered less than 5 of the 10 violence exposure questions (n=12, 2.0%) were excluded from the analytic models. Among all covariates included in the models, 5.5% of data points were missing.

Participants ranged from 11 to 15 years of age with a mean age of 13 years (standard deviation [SD] 0.7; Table 2). 33.9% identified as Black/non-Hispanic, 29.1% as white/non-Hispanic, 7.8% as Hispanic, and 24.6% as multiracial/other. 49.5% identified as female, 42.5% as male, and 4.0% as transgender, another gender identity, or unsure.

### Prevalence of Absenteeism

Rates of frequent absenteeism were high with 45.5% missing 2 or more days of school in the past 30 days (Table 2). Some students endorsed very high frequency of absence including 9.8% missing 4–5 days and 9.4% missing 6 or more days. Demographic characteristics including age, race/ethnicity, gender identity, sexual orientation, and caregiver education level were similar between groups with and without frequent absenteeism (Tables 2 & 3).

## Prevalence of Exposure to Violence

Exposure to violence was commonly reported among the sample (Table 2). 71.5% endorsed experiencing any violent events during their lifetime. The most common types of violence included seeing someone seriously injured or killed (42.7%), having a close friend or family member murdered (35.1%), and experiencing attempted or actual robbing (30.9%). Only 26.1% reported no prior violence exposure, while 20% reported exposure to 1 type of violence, 29.7% reported exposure to 2 to 3 types of violence, and 21.8% reported exposure to 4 or more types of violence. A small minority of participants (1.3%) endorsed experiencing all 10 types of violence during their lifetime.

Prevalence of violence exposure varied across groups by race/ethnicity with significant differences observed for any history of violence exposure ( $X^2 = 20.52; p < 0.001$ ) and summed exposures to violence ( $X^2 = 28.05; p = 0.001$ ) with overall higher rates of violence exposure for youth who identified as Black/non-Hispanic, Hispanic, or multiracial/other as compared to white/non-Hispanic youth (Table 3). Significant differences across race/ethnicity were also seen for 5 of 10 specific types of violence exposure. Minoritized youth more frequently reported seeing someone seriously injured or killed ( $X^2 = 14.73; p = 0.002$ ), having a close friend or family member murdered ( $X^2 = 53.96; p < 0.001$ ), and being forced to have vaginal, oral or anal sex against their will ( $X^2 = 8.12; p = 0.04$ ). Black/non-Hispanic youth reported the lowest rates of 2 of the types of violence exposure with significant across group differences including being beaten, spanked, or pushed by a family member hard enough to cause injury ( $X^2 = 9.62; p = 0.022$ ) and experiencing any other extraordinarily stressful event ( $X^2 = 12.92; p = 0.005$ ). Youth who identified as multiracial or another race reported the highest frequency of these types of violence exposure (28.3% and 41.7%, respectively) and any history of violence exposure overall (85.3%).

## Exposure to Violence and Absenteeism

Reporting any history of violence exposure was significantly associated with frequent absenteeism in the adjusted model (adjusted risk ratio [aRR] 1.43, 95% confidence interval [CI] 1.06–1.92; Table 4). In separate adjusted models for each of the 10 individual types of violence exposure, no type of violence exposure independently predicted frequent absenteeism. Comparing summed exposures to different types of violence to no violence exposure, exposure to 1 type of violence was associated with frequent absenteeism (aRR 1.59, 95% CI 1.15–2.20). There was no evidence for a stronger association for youth with exposure to 2–3 different types of violence as compared to youth with no violence exposure (aRR 1.37, 95% CI 1.00–1.88), or youth with exposure to 4 or more types of violence as compared to youth with no violence exposure (aRR 1.31, 95% CI 0.98–1.74).

## DISCUSSION

We explored experiences of violence and school absenteeism among a diverse sample of middle school students. Both self-reported exposure to violence and absenteeism were highly prevalent among our sample. Prior exposure to any violence was associated with absenteeism in adjusted models, but summed exposures to more types of violence did not increase this association. No specific type of violence exposure was independently

associated with absenteeism. This study expands on prior literature demonstrating a relationship between parent-reported violence exposure and chronic absenteeism<sup>27,28</sup> among samples with a low prevalence of both by exploring this association in youth with increased environmental risk for violence exposure and chronic absenteeism.

Self-reported rates of absenteeism in our sample were considerably higher than national averages derived from school administrative data identifying approximately 16% of students as chronically absent,<sup>1</sup> with 45.5% of participants in our sample missing 2 or more days of school in the past 30 days, including 9.8% missing 4–5 days, and 9.4% missing 6 or more days. These findings draw attention to the unequal distribution of chronic absenteeism across geographies and schools. Nationally, 13% of schools report low chronic absenteeism ( 5% of students) while 35% report significant chronic absenteeism (10–19% of students) and 27% report high or extreme chronic absenteeism ( 20% of students).<sup>2</sup> Nearly 53% of all chronically absent students across the U.S. are concentrated in the 27% of schools with high or extreme school-level chronic absenteeism, schools commonly located in low resource neighborhoods with large proportions of students living in poverty.<sup>2</sup> Notably, the high rates of absenteeism observed in our sample persisted across demographic characteristics, with no significant differences in absenteeism by race/ethnicity. We highlight this similarity in absenteeism rates across race/ethnicity in our geographically limited sample of youth residing in neighborhoods with concentrated disadvantage which differs from national data commonly reporting elevated rates of chronic absenteeism among Black, Hispanic, and multiracial youth.<sup>1</sup> This finding emphasizes the role of school-, community-, and societal-level contributors to chronic absenteeism including structural racism that lead to observed disparities at the national level by differentially impacting minoritized youth exposed to concentrated disadvantage.

Violence exposure was also prevalent in our sample with 71.5% of participants reporting experience of prior violent events. Although there was no difference in the observed frequency of absenteeism by race/ethnicity, youth from minoritized groups did report higher rates of violence exposure. Youth who identified as Black/non-Hispanic, Hispanic, or multiracial/other had higher rates of any violence exposure and greater summed violence exposure as compared to those who identified as white/non-Hispanic. Minoritized youth also more frequently endorsed exposure to certain types of violence, including seeing someone seriously injured or killed or having a close friend or family member murdered. These findings align with prior research displaying an increased burden of being victimized by violence among minoritized youth living in urban environments.<sup>21</sup> Notably, the experience of traumatic loss of a friend or family member is not included in measures of original<sup>22</sup> or expanded ACEs<sup>24</sup> and was experienced much more frequently by Black/non-Hispanic youth (54%), youth self-identified as multiracial or another race (41%), and Hispanic youth (32.4%), as compared to white/non-Hispanic youth (14%) in our sample. School- and community-based violence prevention approaches which comprehensively address the multiple types of violence experienced by minoritized youth in urban environments are needed to promote equity.

Self-reported violence exposure remained associated with absenteeism in models adjusted for demographic characteristics including race/ethnicity and accounting for school-level

effects. This suggests that even in the presence of high levels of community violence, the individual experience of witnessing or being victimized by violence may be an important risk factor for chronic absenteeism. However, no specific type of violence exposure was associated with absenteeism. Therefore, screening for specific types of violence exposure to guide individualized intervention may be less important than universal trauma-sensitive approaches to promote attendance, student health, and well-being. This conclusion aligns with recent research revealing a lack of evidence to support screening for ACEs<sup>34</sup> and expert commentary calling instead for universal support, resilience-building, and improved connection to community resources.<sup>35</sup> Additionally, higher summed exposures to violence did not increase the magnitude of the association with absenteeism. It is possible that violence exposure and absenteeism are not as robustly related as previously believed in populations exposed to concentrated disadvantage or that unmeasured factors such as recency or frequency of violence exposure moderate this relationship.

These findings add to the emerging research on the individual-, family-, school-, community-, and societal-level contributors to chronic absenteeism. To address these factors, multilevel approaches that align school, community, and health system resources are needed. Health providers can begin by heeding calls to recognize both violence and chronic absenteeism as public health concerns.<sup>11,36</sup> Questions about exposure to violence and school absenteeism can be included in routine health supervision visits.<sup>11,37</sup> Health providers are uniquely positioned to identify and treat physical and mental health conditions that contribute to chronic absenteeism. Acknowledging common structural barriers to both good health and good attendance, health providers can also partner with school supports including school nurses to concurrently manage chronic health conditions and associated absenteeism.<sup>38,39</sup> Assessment for health-related social needs including exposure to violence should also be conducted with provision of relevant resources to adolescent patients and their caregivers and appropriate referrals to school- or community-based services.<sup>40</sup>

These findings also have implications for school-based approaches to chronic absenteeism. Schools can adopt trauma-sensitive practices including training school personnel on the connection between the expanded ACEs and learning,<sup>41</sup> offering school-based mental health services,<sup>42</sup> and shifting focus from punishment to positive reinforcement and behavioral supports.<sup>43</sup> Importantly, school-based approaches which respond to absenteeism with exclusionary discipline or referral to the juvenile justice system should be avoided as these may concurrently increase missed school days and exposure to violent environments.<sup>44</sup> Further, out of school suspensions, expulsions, and justice referrals disproportionately impact minoritized youth, widening health and educational disparities.<sup>1</sup> We may promote health and educational equity through policy reform that restricts the use of exclusion discipline for attendance concerns and through implementation of trauma-sensitive or restorative justice-based approaches<sup>45</sup> which concurrently address school-based violence and chronic absenteeism.

Our study has several limitations. Our sample includes middle school students from a small geographic area who were referred for participation based on known or suspected history of trauma which may limit the generalizability of our findings. However, this unique sample also increases our understanding of this adolescent health issue within a

population disproportionately impacted by both absenteeism and violence exposure. Second, there are inherent challenges to studying chronic absenteeism in school settings. Although we successfully identified a sample in which absenteeism was prevalent, some youth with chronic absenteeism may have been missed due to absence on the day of school-based survey administration. Next, self-report of school absence is likely less accurate than school administrative data. Parents have been found to underestimate the frequency of their child's absence over the past school year,<sup>46</sup> and even less is known about how well students estimate their own absence. To reduce inaccuracies in recall, we limited the period over which participants were asked to identify absence to the past 30 days and extrapolated this response to assign risk for frequent absenteeism. Variations in past 30-day absence may lead to underestimation (e.g., infrequent absences in the early part of the school year) or overestimation (e.g., frequent absences in peak cold and flu season) of absenteeism throughout the year. Other variables included as covariates in our analysis, such as caregiver education level, may have also been affected by the self-report nature of our data among this sample of middle school students. Finally, we defined our violence exposure variables using both types and counts to better characterize participants' prior experiences of violence and determine their association with absenteeism. We were unable to determine timing, frequency, or severity of violence exposure which may moderate this relationship. The use of cross-sectional data also prevents causal inference regarding the association between violence exposure and absenteeism. Future longitudinal studies utilizing multilevel methods should explore the complex relationship between violence exposure and chronic absenteeism, and school- or community-level mediators and moderators of this relationship, including among populations in which inequities exist.

In conclusion, we identified an association between self-reported exposure to violence and absenteeism among middle school students with high rates of both. This addresses a need for research among populations disproportionately affected by chronic absenteeism and adds to existing knowledge of the contributors to chronic absenteeism across individual, family, school, community, and societal contexts. Our results highlight the likely contribution of structural inequities to observed disparities in chronic absenteeism, emphasizing the need to recognize chronic absenteeism as a public health and health equity concern. To promote health and educational equity, health providers, educators, community partners, and policy makers have a shared role in reducing chronic absenteeism among youth exposed to violence through coordinated, multilevel, and trauma-sensitive approaches.

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## ABBREVIATIONS

ACE	adverse childhood experience
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<b>TDV</b>	teen dating violence
<b>SV</b>	sexual violence
<b>SD</b>	standard deviation
<b>RR</b>	risk ratio
<b>aRR</b>	adjusted risk ratio
<b>CI</b>	confidence interval

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**What's New:**

Youth exposed to family or community violence may have heightened risk for chronic school absenteeism. Trauma-sensitive approaches that align multilevel school, health system, and community resources and support have potential to reduce absenteeism and promote health and educational equity.

**Table 1.**Violence Exposure Survey Questions<sup>a</sup>

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1. Has anyone ever attempted to rob you or actually robbed you (i.e., stolen your personal belongings)?
2. Has anyone ever attempted to or succeeded in breaking into your home?
3. Have you ever seen someone seriously injured or killed?
4. Have you ever had a close friend or family member murdered?
5. Has anyone ever made you have intercourse or oral or anal sex against your will?
6. Has anyone ever touched private parts of your body, or made you touch theirs, under force or threat?
7. Has anyone, including family members or friends, ever attacked you with a gun, knife, or some other weapon?
8. Has anyone, including family members or friends, ever attacked you without a weapon and seriously injured you?
9. Has anyone in your family ever beaten, spanked, or pushed you hard enough to cause injury?
10. Have you experienced any other extraordinarily stressful situation or event that is not covered above?

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<sup>a</sup>Adapted from the Trauma History Questionnaire<sup>30</sup>

**Table 2.**

Participant Characteristics by Absenteeism Status (N=499)

Characteristic	All	< 2 Days	2 Days	P value
	N (%)	Absent	Absent	
	(N=499)	N (%) (N = 272)	N (%) (N = 227)	
Age, mean (SD)	13.0 (0.7)	12.9 (0.7)	13.0 (0.8)	0.31
Race/Ethnicity <sup>a</sup>				0.77
Black/Non-Hispanic	169 (33.9)	89 (32.7)	80 (35.2)	
White/Non-Hispanic	145 (29.1)	74 (27.2)	71 (31.3)	
Hispanic	39 (7.8)	22 (8.1)	17 (7.5)	
Multiracial/Other	123 (24.6)	70 (25.7)	53 (23.3)	
Gender Identity <sup>a</sup>				0.17
Female	247 (49.5)	122 (44.9)	125 (55.1)	
Male	212 (42.5)	120 (44.1)	92 (40.5)	
Transgender, another gender identity, or unsure	20 (4.0)	13 (4.8)	7 (3.1)	
Sexual Orientation <sup>a</sup>				0.46
Heterosexual or mainly heterosexual	281 (56.3)	147 (54.0)	134 (59.0)	
LGBQ	170 (34.1)	95 (34.9)	75 (33.0)	
Caregiver Education Level <sup>a</sup>				0.72
Did not graduate high school	105 (21.0)	54 (19.9)	51 (22.5)	
Graduated high school or some college or technical school	185 (37.1)	105 (38.6)	80 (35.2)	
Graduated from college or technical school	166 (33.3)	86 (31.6)	80 (35.2)	
Any history of violence exposure	357 (71.5)	181 (66.5)	176 (77.5)	<0.01
Individual types of violence exposure				
Experienced attempted or actual robbing	154 (30.9)	81 (29.8)	73 (32.2)	0.55
Experienced attempted or actual home invasion	91 (18.2)	49 (18.0)	42 (18.5)	0.87
Witnessed someone seriously injured or killed	213 (42.7)	112 (41.2)	101 (44.5)	0.47
Had a close friend or family member murdered	175 (35.1)	86 (31.6)	89 (39.2)	0.09
Forced to have vaginal, oral or anal sex against their will	30 (6.0)	18 (6.6)	12 (5.3)	0.54
Touched on private parts of their body, or made to touch someone else, under force or threat	67 (13.4)	39 (14.3)	28 (12.3)	0.52
Attacked with a weapon	46 (9.2)	25 (9.2)	21 (9.3)	0.99
Attacked without a weapon and seriously injured	53 (10.6)	26 (9.6)	27 (11.9)	0.40
Beaten, spanked, or pushed by a family member hard enough to cause injury	90 (18.0)	45 (16.5)	45 (19.8)	0.36
Experienced any other extraordinarily stressful event	139 (27.9)	72 (26.5)	67 (29.5)	0.41
Summed exposures to different types of violence <sup>a</sup>				0.20
0	130 (26.1)	84 (30.9)	46 (20.3)	
1	100 (20.0)	45 (16.5)	55 (24.2)	
2–3	148 (29.7)	80 (29.4)	68 (30.0)	
4	109 (21.8)	56 (20.6)	53 (23.3)	

<sup>a</sup>Column percentages do not sum to 100% due to missing values

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**Table 3.**

Prevalence of Frequent Absenteeism and Violence Exposure by Race/Ethnicity (N=499)

Characteristic	All N (%)	Black/Non-Hispanic	White/Non-Hispanic	Hispanic	Multiracial/Other	P value
	(N=499)	N (%)	N (%)	N (%)	N (%)	
	(N = 169)	(N = 145)	(N = 39)	(N = 123)		
Frequent absenteeism ( 2 Days Absent)	227 (44.5)	80 (47.3)	71 (49.0)	17 (43.6)	53 (43.1)	0.77
Days absent in past 30 days						
0 days	169 (33.9)	57 (33.7)	45 (31.0)	14 (35.9)	42 (34.2)	0.41
1 day	103 (20.6)	32 (18.9)	29 (20.0)	8 (20.5)	28 (22.8)	
2–3 days	131 (26.3)	49 (29.0)	43 (29.7)	4 (10.3)	32 (26.0)	
4–5 days	49 (9.8)	14 (8.3)	18 (12.4)	6 (15.4)	11 (8.9)	
6 days	47 (9.4)	17 (10.1)	10 (6.9)	7 (18.0)	10 (8.1)	
Any history of violence exposure	357 (71.5)	121 (75.2)	87 (60.8)	28 (73.7)	104 (85.3)	<0.001
Individual types of violence exposure						
Experienced attempted or actual robbery	154 (30.9)	44 (27.0)	42 (29.4)	13 (34.2)	48 (39.3)	0.14
Experienced attempted or actual home invasion	91 (18.2)	26 (16.0)	25 (17.5)	9 (24.3)	27 (22.1)	0.45
Witnessed someone seriously injured or killed	213 (42.7)	71 (43.8)	46 (32.2)	21 (55.3)	65 (53.7)	<0.01
Had a close friend or family member murdered	175 (35.1)	87 (54.0)	20 (14.0)	12 (32.4)	50 (41.0)	<0.001
Forced to have vaginal, oral or anal sex against their will	30 (6.0)	10 (6.2)	5 (3.5)	6 (16.2)	8 (6.6)	0.04
Touched on private parts of their body, or made to touch someone else, under force or threat	67 (13.4)	19 (12.0)	19 (13.4)	6 (16.2)	20 (16.7)	0.70
Attacked with a weapon	46 (9.2)	14 (8.7)	14 (9.9)	5 (13.9)	10 (8.3)	0.76
Attacked without a weapon and seriously injured	53 (10.6)	13 (8.1)	17 (12.1)	4 (10.5)	18 (14.9)	0.34
Beaten, spanked, or pushed by a family member hard enough to cause injury	90 (18.0)	23 (14.4)	24 (16.8)	6 (16.7)	34 (28.3)	0.02
Experienced any other extraordinarily stressful event	139 (27.9)	35 (22.3)	38 (27.0)	11 (30.6)	50 (41.7)	<0.01
Summed exposures to different types of violence <sup>a</sup>						
0	130 (26.1)	40 (24.8)	56 (39.2)	10 (26.3)	18 (14.8)	0.001
1	100 (20.0)	40 (24.8)	28 (19.6)	4 (10.5)	24 (19.7)	
2–3	148 (29.7)	50 (31.1)	34 (23.8)	13 (34.2)	43 (35.3)	
4	109 (21.8)	31 (19.3)	25 (17.5)	11 (29.0)	37 (30.3)	

<sup>a</sup>Column percentages do not sum to 100% due to missing values

**Table 4.**

Associations between Violence Exposure and Chronic Absenteeism (N=499)

Type of Violence Exposure	RR	95% CI	aRR <sup>a</sup>	95% CI
Any history of violence exposure	1.40	1.00–1.94	1.43	1.06–1.92
Individual types of violence exposure				
Experienced attempted or actual robbing	1.07	0.85–1.34	1.03	0.83–1.27
Experienced attempted or actual home invasion	1.03	0.75–1.41	0.99	0.72–1.34
Witnessed someone seriously injured or killed	1.07	0.89–1.30	1.10	0.90–1.35
Had a close friend or family member murdered	1.19	0.99–1.44	1.15	0.96–1.37
Forced to have vaginal, oral or anal sex against their will	0.88	0.63–1.24	0.87	0.62–1.20
Touched on private parts of their body, or made to touch someone else, under force or threat	0.91	0.70–1.18	0.84	0.64–1.10
Attacked with a weapon	1.01	0.74–1.38	1.00	0.70–1.43
Attacked without a weapon and seriously injured	1.14	0.86–1.51	1.04	0.79–1.37
Beaten, spanked, or pushed by a family member hard enough to cause injury	1.12	0.89–1.41	1.10	0.87–1.40
Experienced any other extraordinarily stressful event	1.09	0.88–1.36	1.10	0.90–1.33
Summed exposures to different types of violence <sup>b</sup>				
0		Reference	Reference	
1	1.53	1.07–2.19	1.59	1.15–2.20
2–3	1.29	0.92–1.79	1.37	1.00–1.88
4	1.36	0.99–1.89	1.31	0.98–1.74

RR, risk ratio; aRR, adjusted risk ratio; and CI, confidence interval.

<sup>a</sup>Adjusted for age, gender identity, and race/ethnicity<sup>b</sup>Column percentages do not sum to 100% due to missing values