

# Adolescent homelessness: Evaluating victimization risk based on LGBT identity and sleeping location

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## Abstract

**Background:** Teen homelessness confers risk for victimization experiences, and teens that identify as lesbian, gay, bisexual, or transgender (LGBT) are at an even greater risk of experiencing victimization and homelessness.

**Methods:** Using the 2019 Youth Risk Behavior Surveillance System, we evaluated the association of experiencing homelessness with physical and sexual victimization and we examined whether LGBT identification moderated this relationship. We also evaluated if the odds of experiencing sexual and physical victimization differed depending on the reported sleeping location.

**Results:** Students who reported homelessness had increased odds of having experienced physical and sexual victimization. LGBT identity was related to increased risk for physical and sexual victimization; however, LGBT identity did not moderate the relationship between homelessness and victimization. Considering nighttime sleeping arrangement, students who reported having no usual place to stay had the highest odds of experiencing sexual or physical victimization, followed by car, park, campground, hotels/motels, emergency housing, and doubled-up with family or friends. Notably, all homeless sleeping locations were associated with increased odds of experiencing victimization relative to sleeping at a parent or guardian's home.

**Conclusions:** Our findings confirm links between teen homelessness and sexual and physical victimization, as well as increased risk for victimization experienced by LGBT youth. Special considerations should be made when developing and implementing interventions for teens experiencing homelessness and teens who identify as LGBT.

## KEYWORDS

LGBT, teen homelessness, victimization

## 1 | INTRODUCTION

This study tests for relations between adolescent homelessness and different victimization experiences and considers potential differences based on lesbian, gay, bisexual, or transgender (LGBT) identity. Homelessness during adolescence threatens well-being and often co-occurs with a plurality of other negative experiences, including various forms of victimization (Cutuli, 2018; Hatchimonji et al., 2021). Together these experiences increase the risk for poor outcomes across important domains of functioning, including physical health, emotional and behavioral health, educational attainment and achievement, and workforce participation (Armstrong et al., 2018; Cutuli, 2018). However, there is growing recognition of distinct populations and pathways to and through homelessness, especially for teens (Cochran et al., 2002; Cutuli & Herbers, 2014). These differences may have implications for understanding and serving adolescents with varied experiences of homelessness (Tyler, 2006). The current study tests for associations between adolescent homelessness and victimization as well as potential implications of nighttime residence and sexual orientation and gender identity.

## 1.1 | Homelessness as a context of adversity and victimization

Homelessness is a context in which different experiences of adversity can accumulate and pose a very high risk for poor functioning. Homelessness in the United States is commonly defined as lacking a fixed, adequate, and regular nighttime residence (e.g., in legislation that guides the US Department of Education's identification of and response to child and adolescent homelessness, 42 USC 11434(a)). This includes students sleeping in public spaces, emergency shelter, doubled-up with family or friends, and other homeless settings. We operationalize homelessness this way in our study.

Homelessness often involves acute crises that include the loss of housing and residential moves, loss of possessions, and disruptions of routines, supports, and relationships. For example, when teens change schools or neighborhoods, they experience disruptions to several support structures. These acute adversities frequently occur in the context of ongoing chronic risks, like poverty and disadvantage (e.g., Cutuli & Herbers, 2014). Other adversities may predate and contribute to adolescent homelessness, such as past exposure to domestic violence, child maltreatment, or out-of-home placements (Cochran et al., 2002; Tyler, 2006). Teens also may become vulnerable to exploitation and additional adversity once an episode of homelessness begins, evident in increased risk for sex trafficking, engaging in survival sex, and physical victimization (Murphy, 2016; Tyler & Beal, 2010; Tyler & Johnson, 2006). Together these cumulative experiences of adversity threaten healthy outcomes across varied domains of functioning, such as higher rates of problems in school, with alcohol and substance use, poor health, and poor mental health (Armstrong et al., 2018; Cutuli, 2018; Cutuli et al., 2013; Medlow et al., 2014).

## 1.2 | Sleeping location and victimization

Risk for victimization seems to differ based on where adolescents sleep during an episode of homelessness, though this is underappreciated as many studies focus on homelessness in contexts of shelter or drop-in centers. A recent report analyzing sexual violence and sleeping location found that students who reported unstable sleeping arrangements were more likely to have been sexually victimized compared to their stably housed peers (SchoolHouse Connection, 2021). Those who reported that they had slept in a car, park, campground, or other public place, motel/hotel, or no usual place had higher rates of sexual victimization than those utilizing shelters/emergency housing. Yet, students who slept doubled-up with friends or family had the lowest rates of sexual victimization compared to each other homeless situation. The current study builds upon this study by considering the sleeping location and sexual and physical victimization. Additionally, our study will expand on prior operational definitions of sexual victimization by using three indicators versus the single item used in prior work.

## 1.3 | LGBT identity

Youth who identify as LGBT face increased risks of homelessness and physical and sexual victimization in comparison to non-LGBT youth (Cochran et al., 2002; Dank et al., 2014; Ross-Reed et al., 2019). Experiences of physical abuse and/or family conflict may contribute to subsequent homelessness, such as when teens run away or are kicked out because of conflict related to their developing sexual identity (Cochran et al., 2002; Keuroghlian et al., 2014). Sexual and gender minority youth are at increased risk of victimization, including sex trafficking and survival sex (Greeson et al., 2019; Keuroghlian et al., 2014). Survival behaviors leave individuals more exposed to perpetrators, and thus vulnerable to violence. Though the population of LGBT youth is not homogenous and their experiences vary (Keuroghlian et al., 2014), the literature generally affirms an increased risk for victimization among LGBT individuals compared to non-LGBT peers. This is potentially due to discrimination, being kicked out or leaving home due to lack of acceptance by family members, and other co-occurring issues such as abuse and parental drug abuse (Ray, 2006). The experiences of LGBT youth need to be carefully considered when assessing the relationship between homelessness and victimization.

## 1.4 | Current study

These analyses assess the risk of physical and sexual victimization among youth experiencing homelessness. We hypothesize that adolescents experiencing homelessness will demonstrate an increased risk of both physical and sexual victimization in comparison to adolescents with stable housing. Additionally, we expect LGBT identity will moderate the links between homelessness and victimization, evident in higher rates of victimization for LGBT teens who experience homelessness when compared to non-LGBT teens. Finally, we will test for differences between students who report different nighttime sleeping arrangements, hypothesizing that homeless situations will each predict a higher risk for victimization compared to non-homeless locations.

## 2 | METHOD

We used data from the Centers for Disease Control and Prevention (CDC) 2019 Youth Risk Behavior Surveillance System (YRBSS), which is a risk monitoring survey conducted at the national, state, and local levels to monitor adolescent behaviors associated with poor health outcomes in the United States. We used data from four states that collected representative data about housing, LGBT identity, and victimization: Michigan, Massachusetts, Virginia, and Pennsylvania. The complex sampling design of the YRBSS allows findings to represent the populations of public high school students where the survey was conducted.

### 2.1 | Participants

Students attending public high schools in each state were selected using a two-stage cluster sampling design. Schools were selected based on enrollment size. Students in a randomly selected, required class period completed the YRBSS as an anonymous paper-and-pencil survey. Nonresponse to one or more YRBS items relevant to the current analyses led to the listwise deletion of 845 responses (6.15% of the total). In sum, 13,741 observations had complete data relevant to the current analyses, representing 1,531,612 public high school students. The Institutional Review Board of Nemours Children's Health determined the study to be exempt. YRBS methods are detailed elsewhere (Underwood et al., 2020) and briefly explained below.

### 2.2 | Variables

Students reported demographic information, including age, race, ethnicity, and sex. They also reported on LGBT identity, homelessness, and victimization. We indexed constructs as dichotomous (absent/present) variables based on responses to one or more relevant items, except for age which was treated as continuous. All items used in these analyses were standard across states.

#### 2.2.1 | Age

Students reported age using multiple choice options, including “12 years old or younger; 13 years old; 14 years old; 15 years old; 16 years old; 17 years old; 18 years old or older.” We treated age as a continuous variable.

#### 2.2.2 | Sex

Students responded to a single item asking about their sex with two response options: “Male” and “Female.”

#### 2.2.3 | Homelessness

We operationalized homelessness using the definition embedded in the US Federal McKinney–Vento Act, which guides the response to homelessness among state and local education agencies. Homelessness means lacking a fixed, regular, nighttime address. All states in our analysis included a question asking about nighttime arrangement: “During the past 30 days, where did you usually sleep?” with the response options: “In my parent's or guardian's home; In the home of a friend, family member, or other person because I had to leave my home or my parent or guardian cannot afford housing; In a shelter or emergency housing; In a motel or hotel; In a car, park, campground, or other public place; I do not have a usual place to sleep; Somewhere else.” All responses indicated homelessness except “In my parent's or guardian's home” and “Somewhere else.” The “Somewhere else” option accounted for 63 responses (0.45%) and due to its ambiguity, it could not be reliably placed into a dichotomous category. Therefore, we considered these responses to be missing data.

#### 2.2.4 | Physical victimization

Students indicated a history of physical victimization if they reported that they were threatened or injured with a weapon at school or had been physically hurt by a dating partner in the past 12 months. Response options were in the form of the

number of times the event occurred in the given time frame. We created a dichotomized variable representing whether each student experienced any physical victimization or none.

### 2.2.5 | Sexual victimization

Three items indexed sexual victimization, including questions about ever being physically forced to have unwanted sex (“Yes” or “No” response options), being forced by a dating partner to have unwanted sex in the past 12 months (“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”), and being forced by anyone to do sexual things in the past 12 months (“0 times; 1 time, 2 or 3 times, 4 or 5 times, 6 or more times”). We created a dichotomized variable representing whether each student experienced any sexual victimization or none.

### 2.2.6 | Race/ethnicity

Students were asked one question about ethnicity: “Are you Hispanic or Latino?” and one question about race: “What is your race?” Responses from both ethnicity and race questions were condensed by the CDC into eight categories: (A) American Indian or Alaska Native, (B) Asian, (C) Black of African American, (D) Native Hawaiian or Other Pacific Islander (PI), (E) White, (F) Hispanic/Latino, (G) Multiple-Hispanic, and (H) Multiple-Non-Hispanic. For our analyses, categories were collapsed into these mutually exclusive groupings: Hispanic/Latinx, Asian/Asian American, Black/African American, Multiple Races, Native American/Alaskan or PI, and White.

### 2.2.7 | LGBT identity

Students reported their sexual orientation and gender identity on separate questions. The first question asked about students' sexual orientation with the item, “Which of the following best describes you?” containing the possible responses, “Heterosexual (straight); Gay or Lesbian; Bisexual; Not sure.” A second question asked about cisgender versus transgender identity: “Some people describe themselves as transgender when their sex at birth does not match the way they think or feel about their gender. Are you transgender?” with the following options, “No, I am not transgender; Yes, I am transgender; I am not sure if I am transgender; and I am not sure what the question is asking.” We considered students to identify as LGBT if they selected gay/lesbian or bisexual as a sexual orientation and/or reported being transgender. Responses of “I am not sure what the question is asking” were categorized as missing as such responses did not indicate either LGBT or non-LGBT and did not contribute to the overall LGBT index.

## 2.3 | Plan for analysis

We first evaluated the relations between experiencing homelessness and sexual and physical victimization using logistic regression main effect models to test for risk relative to students not experiencing homelessness. Subsequently, we tested for the moderation of homelessness by LGBT identity on the likelihood of sexual and physical victimization, respectively. Finally, we tested whether sleeping location indicated risk for physical or sexual victimization using logistic regression main effect models.

## 3 | RESULTS

Table 1 reports demographic characteristics. About 56,106 students, or 3.56% of the total sample, experienced homelessness. White students made up 50.76% of students experiencing homelessness, followed by Black/African American (19.24%), Hispanic/Latinx (18.95%), Non-Hispanic other (8.35%), and Asian/Asian American (2.71%). Additionally, 28.00% of students experiencing homelessness identified as LGBT.

Of the students experiencing homelessness, the majority reported being doubled-up (58.68%), followed by emergency housing/shelter (16.43%), no usual place to stay (8.62%), car, park, campground (8.51%), and motel/hotel (7.75%). Table 2 contains more information regarding the percentages of each student reporting each sleeping situation.

**TABLE 1** Rates of demographic factors, victimization, and homelessness

	Total			Homeless			Not Homeless						
	% <sup>a</sup>	95% CI <sup>a</sup>	Est.	Uwtd count	Missing	% <sup>a</sup>	95% CI <sup>a</sup>	Est.	Uwtd count	% <sup>a</sup>	95% CI <sup>a</sup>	Est.	Uwtd count
Female	48.73	47.31–50.15	807,866.72	6893	87	40.48	34.43–46.82	21,800.97	200	49.43	47.86–51.00	747,673.82	6331
Race/ethnicity					292								
Hispanic/Latinx	14.22	12.25–16.44	232,094.36	2234		18.95	14.88–23.82	10,124.25	100	13.28	11.46–15.33	197,962.48	1923
Non-Hispanic other <sup>b</sup>	5.55	5.10–6.03	90,559.02	1001		8.35	5.66–12.15	4458.83	54	5.48	5.05–5.94	81,724.99	889
Asian/Asian American	4.43	3.41–5.73	72,246.36	789		2.71	1.44–5.04	1446.63	19	4.56	3.50–5.91	67,933.55	734
Black/African American	13.71	11.83–15.83	223,805.79	2601		19.24	14.42–25.18	10,276.83	153	13.13	11.27–15.25	195,848.86	2230
White	62.10	58.73–65.35	1,013,767.23	6824		50.76	43.77–57.72	27,117.67	161	63.56	60.16–66.82	947,742.04	6382
Age					30								
14 or younger	12.09	10.79–13.52	201,172.59	2192		12.16	8.66–16.83	6725.74	69	12.05	10.73–13.52	182,777.78	1984
15 years old	24.46	22.63–26.38	406,933.14	3848		18.62	14.65–23.36	10,295.22	126	24.47	22.68–26.37	371,089.88	3469
16 years old	25.20	23.52–26.96	419,307.69	3426		21.73	17.68–26.40	12,013.80	124	25.36	23.57–27.25	384,601.48	3113
17 years old	24.66	22.65–26.78	410,255.39	2928		26.25	21.04–32.23	14,514.46	113	24.85	22.76–27.05	376,754.80	2653
18 years old or older	13.60	12.31–15.00	226,273.95	1317		21.24	15.78–27.97	11,746.42	80	13.26	11.97–14.67	201,114.67	1140
LGBT	12.14	11.29–13.04	202,183.06	1689	23	28.00	23.05–33.55	15,710.08	143	11.68	10.75–12.67	177,272.17	1454
Sexual victimization	14.94	14.14–15.77	248,600.73	2063	39	34.80	29.32–40.71	19,336.63	177	13.95	13.16–14.78	211,456.92	1729
Physical victimization	10.00	9.36–10.69	166,781.23	1387	7	34.93	30.17–40.01	19,599.47	172	8.68	8.07–9.33	131,857.52	1074
Homeless	3.56	3.06–4.14	56,106.36	516	845	—	—	—	—	—	—	—	—

Abbreviations: CI, confidence interval; LGBT, lesbian, gay, bisexual, or transgender.

<sup>a</sup>Percentages are weighted.

<sup>b</sup>Native American/Alaskan, Native Hawaiian/Other PI, and multiracial.

### 3.1 | Homelessness and victimization: Main effects

Homelessness was related to sexual victimization when treated as a main effect ( $OR = 3.08$ ;  $p < .001$ ) and considering sex ( $OR = 2.83$ ;  $p < .001$ ), race, age ( $OR = 1.13$ ;  $p < .001$ ), and LGBT status ( $OR = 2.50$ ;  $p < .001$ ) as covariates. Relative to White students, the risk of sexual victimization was lower for Asian/Asian American students ( $OR = 0.68$ ;  $p = .024$ ) and Black/African American students ( $OR = 0.77$ ;  $p = .004$ ). Risk was higher for students in the non-Hispanic, Other race group ( $OR = 1.253$ ;  $p = .014$ ).

Homelessness was also related to physical victimization ( $OR = 4.47$ ;  $p < .001$ ), covarying sex ( $OR = 0.84$ ;  $p = .04$ ), race, age ( $OR = 0.94$ ;  $p = .047$ ), and LGBT status ( $OR = 2.16$ ;  $p < .001$ ). Relative to the group of White students, Asian/Asian American students were at reduced odds of experiencing physical victimization ( $OR = 0.53$ ;  $p < .001$ ). Further racial/ethnicity breakdowns can be found in Table 3.

**TABLE 2** Rates of each sleeping location

	Total			Uwd count	Within homeless	
	% <sup>a</sup>	Est.	95% CI est.		% <sup>a</sup>	95% CI <sup>a</sup>
Parent/guardian's house	96.44	1,519,108.74	1,359,814.25–1,678,403.22	12,380	—	—
Doubled-up	2.09	32,923.20	26,840.68–39,005.72	296	58.68	52.76–64.36
Emergency housing/shelter	0.59	9,217.40	6,516.26–11,918.53	97	16.43	12.59–21.16
Motel/hotel	0.28	4,350.13	2,564.15–6,136.11	38	7.75	5.51–10.81
Car, park, campground	0.30	4,776.82	2,767.99–6,785.66	40	8.51	5.90–12.14
No usual place	0.31	4,838.81	2,880.57–6,797.05	45	8.62	5.84–12.56

Abbreviation: CI, confidence interval.

<sup>a</sup>Percentages are weighted.

**TABLE 3** Results of logistic regression models predicting victimization

	Model 1: Main effects Sexual victimization		Model 2: Main effects Physical victimization		Model 3: Sexual victimization and moderation of LGBT		Model 4: Physical victimization and moderation of LGBT	
	Exp (B)	95% CI	Exp (B)	95% CI	Exp (B)	95% CI	Exp (B)	95% CI
Sex (female <sup>a</sup> vs. male)	2.823***	2.46–3.26	0.84*	0.71–0.99	2.84***	2.47–3.28	0.83*	0.70–0.99
Race/ethnicity								
Hispanic/Latino (any)	1.019	0.84–1.24	1.09	0.87–1.37	1.02	0.83–12.41	1.10	0.88–1.37
Non-Hispanic other <sup>b</sup>	1.24*	1.05–1.50	1.17	0.86–1.58	1.26*	1.05–1.50	1.17	0.86–1.58
Asian/Asian American	0.68*	0.49–0.95	0.53***	0.38–0.74	0.68*	0.49–0.95	0.53***	0.38–0.74
Black/African American	0.77**	0.65–0.92	1.00	0.79–1.28	0.77**	0.65–0.92	1.01	0.78–1.28
White <sup>a</sup>	—	—	—	—	—	—	—	—
Age	1.13***	1.08–1.19	0.94*	0.91–1.00	1.13***	1.08–1.19	0.95*	0.91–1.00
LGBT (LGBT vs. non-LGBT <sup>a</sup> )	2.50***	2.07–3.03	2.16***	1.78–2.61	2.44***	2.02–2.95	2.23***	1.82–2.74
Homeless (vs. non-homeless <sup>a</sup> )	3.08***	2.29–4.15	4.47***	3.39–5.88	2.80***	1.99–3.92	4.84***	3.64–6.45
LGBT × homelessness	—	—	—	—	1.39	0.77–2.50	0.76	0.41–1.41

Abbreviations: CI, confidence interval; LGBT, lesbian, gay, bisexual, or transgender.

<sup>a</sup>Refers to reference category.

<sup>b</sup>Native American/Alaskan, Native Hawaiian/Other PI, and multiracial).

\* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ .

### 3.2 | Homelessness and victimization: Moderation by LGBT identity

LGBT identity did not significantly moderate the relation between homelessness and sexual victimization (OR = 1.39;  $p = .277$ ) or physical victimization (OR = 0.76;  $p = .376$ ) when controlling for other relevant variables. See Table 3.

### 3.3 | Sleeping location and victimization: Main effect

Each homeless sleeping location corresponded to increased odds of sexual victimization and physical victimization compared to students who usually slept at home with their parent/guardian. See Table 4. Students who reported no usual place to sleep had the highest odds of experiencing sexual victimization (OR = 11.47;  $p < .001$ ) followed by: car, park, or campground (OR = 6.10;  $p < .001$ ), hotel/motel (OR = 3.87;  $p = .004$ ), emergency housing/shelter (OR = 3.238;  $p = .001$ ), and doubled-up (OR = 2.16;  $p < .001$ ). Considering physical victimization, students who reported no usual place to sleep had the highest odds of physical victimization (OR = 12.00;  $p < .001$ ), followed by car, park, or campground (OR = 8.10;  $p < .001$ ), hotel/motel (OR = 5.85;  $p < .001$ ), emergency housing/shelter (OR = 5.59;  $p < .001$ ), and doubled-up (OR = 3.11;  $p < .001$ ).

## 4 | DISCUSSION

Our findings confirm that students who usually sleep in homeless settings are more likely to report experiencing sexual or physical victimization compared to students who were consistently housed. This increased risk was true for students in each sort of homelessness category, based on nighttime sleeping location. The risk associated with homelessness was not moderated by LGBT identity, though both homelessness and LGBT identity were independently associated with increased risk for victimization consistent with an additive effect. Unlike findings based on convenience samples, the current findings use the complex sampling design of the YRBSS to represent the population of public high school students in four states.

**TABLE 4** Results of logistic regression models predicting victimization from sleeping location

	Model 5: Sleeping location and sexual victimization		Model 6: Sleeping location and physical victimization	
	Exp (B)	95% CI	Exp (B)	CI
Sex (female <sup>a</sup> vs. male)	2.88***	2.50–3.33	0.85	0.72–1.01
Race/ethnicity				
Hispanic/Latino (any)	1.01	0.83–1.23	1.07	0.85–1.36
Non-Hispanic other <sup>b</sup>	1.25*	1.04–1.49	1.16	0.86–1.57
Asian/Asian American	0.68*	0.49–0.95	0.53***	0.38–0.74
Black/African American	0.77**	0.65–0.91	1.00	0.78–1.27
White <sup>a</sup>				
Age	1.13***	1.08–1.20	0.95*	0.91–1.00
LGBT (LGBT vs. non-LGBT <sup>a</sup> )	2.48***	2.06–3.00	2.13***	1.76–2.58
Sleeping location				
Doubled up	2.16***	1.47–3.18	3.11***	2.17–4.46
Emergency housing/shelter	3.24**	1.67–6.26	5.59***	3.45–9.06
Hotel/motel	3.87**	1.55–9.63	5.86***	2.50–13.75
Car, park, campground, other public place	6.10***	2.50–14.87	8.10***	3.42–19.20
No usual place to stay	11.47***	4.95–26.54	12.00***	4.77–30.18
Parent/guardian's home <sup>a</sup>	—	—	—	—

Abbreviations: CI, confidence interval; LGBT, lesbian, gay, bisexual, or transgender.

<sup>a</sup>Refers to reference category.

<sup>b</sup>Native American/Alaskan, Native Hawaiian/Other PI, and multiracial.

\* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ .

## 4.1 | Victimization

Teens who experience homelessness are at increased risk for victimization compared to their stably housed peers. Odds of sexual victimization were 208% higher and odds of physical victimization were 347% higher for students in this group. This risk may reflect (a) victimization experiences that led to homelessness (i.e., exposure to violence, childhood trauma), (b) vulnerability to victimization during episodes of homelessness (encountering perpetrators in unsafe sleeping locations, sex trafficking, and survival sex), or (c) both (Cochran et al., 2002; Murphy, 2016; Tyler, 2006; Tyler & Beal, 2010; Tyler & Johnson, 2006). Overall, the increased odds for each type of victimization confirmed our hypotheses that students who experience homelessness are at higher risk than those who are stably housed.

LGBT identity was associated with 150% increased odds of experiencing sexual victimization and 116% increased odds of physical victimization when considered as an independent main effect. These findings support the general view in the literature that teens who identify as LGBT are at an increased risk of exposure to violence and other victimization (Cochran et al., 2002). However, LGBT identity did not moderate the relation between homelessness and each type of victimization. This finding is contrary to our hypothesis. Instead, the risks for victimization appear to be additive, and not multiplicative, for students who are LGBT and who experience homelessness. Simply put, LGBT identity places youth at a higher risk for victimization compared to non-LGBT youth, and homelessness also increases the risk for victimization compared to not-homeless peers. However, LGBT youth experiencing homelessness are not at higher risk of victimization compared to LGBT youth not experiencing homelessness, for example. This pattern is similar to findings that sexual orientation and homelessness make independent (nonmoderated) contributions to indicators of poor functioning (Cutuli et al., 2020).

School-wide interventions that create and sustain a positive school climate are important on the path toward eliminating peer victimization and violence in the school setting (Eugene et al., 2021). A positive school climate has been related to lower levels of victimization and violence in California schools (Moore et al., 2020) and has been linked to lower rates of school victimization and mental health concerns for school-attending homeless youth (Moore et al., 2018). Thus, a positive school climate may serve as a protective factor for students experiencing homeless exposed to peer violence.

## 4.2 | Sleeping location and victimization

Most students who reported homelessness were staying doubled-up with friends or family. Each homeless sleeping location was associated with an increased risk for each form of victimization relative to students who usually sleep at home with their parents or guardians. This finding underscores that victimization experiences are a feature for students who experience homelessness in any of its forms, regardless of the specific homeless nighttime sleeping arrangement. Though homeless nighttime sleeping locations may represent higher or lower risk compared to each other, they all are tied to higher likelihood that students have been physically or sexually victimized compared to students who do not experience homelessness.

The degree of risk for victimization is particularly striking for students with different homeless sleeping locations. Students who did not have a usual place to stay were at the greatest risk, with 1047% increased odds of experiencing sexual victimization and 1100% increased odds of physical victimization, though this was also the most variable group with the largest confidence intervals for these estimates. A response of “no usual place” may mean that the student slept in multiple places, including different emergency housing programs, parent/guardian's home, public spaces, and so forth. The increased risk may be attributable to the instability regardless of if the student stayed in less vulnerable spaces and should be the subject of future research. Sleeping in public spaces was associated with over 510% increased odds for sexual victimization and 710% for physical victimization. Different nighttime sleeping arrangements likely confer different levels of risk for victimization because of differences in the likelihood of past victimization (e.g., teens fleeing maltreating homes may be more likely to experience one situation over another), differences in the likelihood of encountering new perpetrators once homeless, differences in encountering protective factors against victimization (e.g., retaining adult supervision or social support), or a complex combination of these considerations. Future work should attempt to understand the complex situations that contribute to the risk for victimization evident in different nighttime sleeping arrangements.

## 4.3 | Strengths and limitations

Our data are restricted to four US states, which may not be representative of other geographies. Furthermore, many students experiencing homelessness have difficulties attending school, which may have impacted representation in this sample. In addition, future research is needed to assess more complex intersectionality and its influences on the risk of victimization and homelessness. Finally, the cross-sectional design of the YRBSS precludes us from establishing a causal relationship between homelessness and victimization, and additional research is needed that better discern the processes that contribute to victimization in the context of homelessness.



#### 4.4 | Implications and future directions

The findings may inform policy and practice to better support teens experiencing homelessness and teens identifying as LGBT as each demonstrate an increased risk of experiencing physical or sexual victimization. Results underscore the likely utility of trauma-informed approaches for health and human services that serve these teens and, when warranted, close referral pathways to evidence-based, trauma-focused therapies (e.g., Cutuli et al., 2019). In addition, sleeping arrangements reflecting increasing degrees of instability appeared to generally correspond to an increasing likelihood of victimization. While preventing homelessness completely is a laudable goal that warrants and requires high prioritization, service system approaches that more effectively engage adolescents and increase stability may reduce additional victimization even if they do not prevent or immediately resolve a homelessness episode. Future research is needed to better understand the sequence of homelessness and victimization experiences and to develop and test approaches to engage teens and respond to homelessness when it occurs.

Homelessness and victimization threaten an individual's mental, emotional, and physical health (Armstrong et al., 2018; Cutuli, 2018; Hatchimonji et al., 2021). Thus, evidence-based interventions for exposure to trauma should be considered when working with youth with experiences of homelessness and students identifying as LGBT. Further research is needed to evaluate the risk and promotive factors of sleeping locations for youth experiencing homelessness. Additionally, housing policy should be informed of the risks associated with teen homelessness and where youth are at increased exposure to violence to better support individuals in need.

#### CONFLICT OF INTEREST

The authors declare no conflict of interest.

#### DATA AVAILABILITY STATEMENT

Data are not made available by the authors. Interested investigators can request YRBS data from the CDC.

#### ETHICS STATEMENT

The analyses were deemed not-human-subjects-research by the Nemours Children's Health IRB.

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