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Homelessness and Suicidality: The Role of Bullying and Parental Support

Objective: To examine the relation between homelessness and suicidality and to test bullying as a mediator and parental support as a moderator of these relations.

Background: Youth from low-income families are more likely to be bullied and in turn experience negative mental health outcomes. Parental support has been reported to mitigate the effects of stressful events, such as being bullied. However, these relations are still undocumented among youth experiencing homelessness.

Method: This study included a random sample of 2,049 stably housed and 64 homeless youth enrolled in the Delaware Public Schools, grades 9 through 12, who completed the 2015 Delaware Youth Risk Behavior Survey. Hayes's PROCESS macro was used to test for a moderated mediation relation between bullying, suicidality, and parental support for homeless youth.

Results: Bullying mediated the relation between homelessness and suicidality, and parental support moderated the relation between bullying and suicidality. Youth experiencing homelessness reported more bullying, which was associated with more severe suicidality. For youth experiencing homelessness with low levels of parental support, bullying was associated with more severe suicidality. Conversely, for youth with high levels of parental support, bullying was not associated with more severe suicidality.

Conclusion: This study indicates that bullying is a mechanism through which homelessness and suicidality are related, while also demonstrating the importance of parental support.

Implication: The increased risk of suicidality among youth experiencing homelessness who are bullied, as well as the effects of parental support, warrant attention from school personnel and youth service providers.

Research consistently reports that youth experiencing homelessness have higher rates of depression and suicide than their stably housed peers (Frederick, Kirst, & Erickson, 2012; Institute for Children, Poverty and Homelessness [ICPH], 2018; Moore, Benbenishti, Astor, & Rice, 2017). Given the relation that exists between homelessness and suicidality, it is critical to understand the mechanisms through which homelessness is associated with suicidality (i.e., suicidal thoughts, plans, and behaviors; Miller et al., 2018) among youth. This study examined bullying as a mechanism because youth experiencing homelessness have reported experiencing bullying, and bullying has been demonstrated to be a significant contributor to suicidality (Holt et al., 2015; ICPH, 2018).

In addition, this study examined parental support as a moderator of the relation between homelessness and suicidality and bullying and suicidality. Research has suggested that parental support can act as a protective factor, buffering the negative mental health outcomes experienced because of bullying and homelessness (Bao, Whitbeck, & Hoyt, 2000; Stadler, Feifel,

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Rohrmann, Vermeiren, & Poustka, 2010; Unger et al., 1998). Therefore, understanding the role of parental support could potentially inform interventions and strategies used to improve mental health outcomes of homeless youth who are also bullied. The purpose of this study was to examine the process by which homelessness and suicidality are related via the mediator bullying and to test whether parental support moderates the association between homelessness and suicidality and bullying and suicidality.

HOMELESSNESS AND SUICIDALITY

In this article, we define homelessness using the federal definition provided by the McKinney–Vento Homeless Assistance Act of 1987 Subtitle VII-B. The Act mandates that children and youth in the United States must receive equal access to a free and appropriate public education (McKinney–Vento Homeless Assistance Act, 1987). It was reauthorized under Every Student Succeeds Act of 2015 and defines children and youth as homeless who do not have a regular, fixed, and adequate nighttime residence, such as those who are (a) sharing housing with other people (i.e., doubled-up) because of economic hardship and the loss of family housing; (b) living in a hotel, motel, trailer park, and camping grounds; and (c) living in transitional housing and emergency shelters, abandoned in hospitals, or living in public/private spaces not typically used for sleeping (e.g., cars, parks, abandoned buildings, and train stations; Every Student Succeeds Act, 2015). Although the authors acknowledge that U.S. Department of Housing and Urban Development defines homelessness differently from McKinney–Vento, the McKinney–Vento Act is the most appropriate definition for this study because it is the federally mandated criteria for identifying homelessness among school-age children and youth. Schools are also responsible for reporting student homelessness data, using the McKinney–Vento Act criteria, to the federal government (National Center for Homeless Education [NCHE], 2019).

As previously mentioned, research consistently reports that youth experiencing homelessness have higher rates of depression and suicide than their stably housed peers (Frederick et al., 2012; ICPH, 2018; Moore et al., 2017). Youth experiencing homelessness are 3 to 6 times more likely to attempt suicide compared

with stably housed youth (ICPH, 2018). In a 2018 ICPH report, approximately 21% to 32% of youth experiencing homelessness reported attempting suicide in the previous 12 months, with youth in Delaware and Illinois experiencing the highest rates (32%; ICPH, 2018).

BULLYING AS A MECHANISM LINKING HOMELESSNESS AND SUICIDALITY

One potential mechanism to explain the relation between homelessness and suicidality is bullying. In 2017, 20% of youth reported being bullied in person (e.g., on school property, on a school bus, and going to and from school), and 15% of youth reported being bullied online in the preceding year (Musu-Gillette, Zhang, Wang, Zhang, & Oudekerk, 2017). In 2014, the Centers for Disease Control and Prevention (CDC) proposed a uniform definition of bullying (Gladden, Vivolo-Kantor, Hamburger, & Lumpkin, 2014) and the definition was adopted in the National Academies of Sciences, Engineering, and Medicine's (NASEM; 2016) bullying report. The uniform definition of traditional bullying states:

Bullying is any unwanted aggressive behavior(s) by another youth or group of youths who are not siblings or current dating partners that involves an observed or perceived power imbalance and is repeated multiple times or is highly likely to be repeated. Bullying may inflict harm or distress on the targeted youth including physical, psychological, social, or educational harm. (p. 7)

These unwanted aggressive behavior(s) can be categorized as physical (e.g., being hit, kicked), verbal (e.g., threats, name-calling), relational (e.g., spreading rumors, social isolation), and damage to property (e.g., theft, destroying one's property) (NASEM, 2016).

Additionally, as access and use of the Internet and electronic devices has increased, there also has been an increase in bullying through these mediums (Anderson, 2018). The definition of cyberbullying originates from the uniform definition of bullying, with the inclusion of electronic means (NASEM, 2016), such that cyberbullying is defined as a form of unwanted aggression that occurs online and through means such as text messages, email, social media, and online chat rooms and also involves an imbalance of power (NASEM, 2016). Cyberbullying also can be categorized as verbal (e.g.,

threats, name-calling), relational (e.g., spreading rumors), and damage to property (e.g., deleting personal information; NASEM, 2016).

Youth who are bullied in-person (traditional bullying) and bullied online (cyberbullying) are more likely to report suicidal thoughts and attempts than are their nonbullied peers (Hinduja & Patchin, 2010; Holt et al., 2015; Kim & Leventhal, 2008; Klomek, Marrocco, Kleinman, Schonfeld, & Gould, 2007; Schneider, O'Donnell, Stueve, & Coulter, 2012). Frequent exposure to bullying (i.e., three to four times in the previous month) increases youth's risks of suicide attempts (Klomek et al., 2007). One study reported that victims of cyberbullying were 3.2 times more likely to attempt suicide than individuals who were not cyberbullied (Goebert, Else, Matsu, Chung-Do, & Chang, 2011).

There is limited research examining the relation between homelessness and suicidality with bullying as the mechanism through which homelessness is related to suicidality. Armstrong Owens, and Haskett (2018) found that youth experiencing homelessness were more likely to experience peer victimization, including bullying, than their stably housed peers. An ICPH (2018) report stated that youth experiencing homelessness who were also bullied were more likely to experience depressive symptoms than youth experiencing homelessness who were not bullied. In addition, previous research has also examined the relation among family income, bullying, and suicidality among youth. Evidence suggests that youth from low-income families are more likely to be exposed to bullying at school and are more likely to experience negative, long-term mental health outcomes from being bullied (Carlson, 2006; Due, Damsgaard, Lund, & Holstein, 2009). However, none of these studies specifically examined bullying as a mechanism to explain the relation between homelessness and suicidality.

PARENTAL SUPPORT AS A MODERATOR

Although being bullied and experiencing homelessness can negatively affect youths' mental health outcomes, research suggests that parental support can mitigate the effects of bullying and improve youth's well-being (Claes, Luyckx, Baetens, Van de Ven, & Witteman, 2015; Yeung & Leadbeater, 2010). Therefore, this study uses the buffering hypothesis to examine

whether parental support acts as a moderator of the association between bullying and suicidality and homelessness and suicidality. The buffering hypothesis states that "psychosocial stress will have deleterious effects on the health and well-being of those with little or no social support, while these effects will be lessened or eliminated for those with stronger support systems" (Cohen & McKay, 1984, p. 253). Parental support has demonstrated that it buffers individuals from stressors or stressful environments (Cohen & McKay, 1984). For example, youth who are bullied and view their parents as more supportive and encouraging are more resilient and have less severe suicidality than youth with less supportive and encouraging parents (Baldry & Farrington, 2005). Additionally, another study demonstrated that youth who had higher levels of parental support were at a lower risk of suicide ideation than youth with lower levels of parental support (Bonanno & Hymel, 2010). Other studies have further demonstrated that support from parents can act as a protective factor against bullying (Baldry & Farrington, 2005; Borowsky, Taliaferro, & McMorris, 2013; Stadler et al., 2010). Although there has been limited research regarding parental support as a moderator for youth being bullied or experiencing homelessness, it can be hypothesized that parental support would act as a buffer for youth experiencing homelessness who are also bullied to mitigate suicidality.

The purpose of this study was to examine the relation between homelessness and suicidality and to test bullying (traditional and cyberbullying) as a mediator and parental support as a moderator of these relations. This study collapsed across these two types of bullying (both traditional and cyberbullying), focusing on the overall effects of bullying as a mediator. The following are the guiding research questions and hypotheses:

1. Does bullying mediate the relation between experiencing homelessness and suicidality? It is hypothesized that bullying will mediate the relation between experiencing homelessness and suicidality. Specifically, youth experiencing homelessness will report experiencing more bullying than stably housed youth and in turn will have more severe suicidality.
2. Does parental support moderate the relation between bullying and suicidality? It is hypothesized that parental support will

moderate the association between bullying and suicidality, such that for youth experiencing homelessness who report low levels of parental support, bullying will be associated with more severe suicidality, and for homeless youth with high levels of parental support, bullying will not be associated with more severe suicidality.

3. Does parental support moderate the relation between youth homelessness and suicidality? It is hypothesized that parental support will moderate the association between homelessness and suicidality. Therefore, among youth who report low levels of parental support, homelessness will be associated with more severe suicidality; among youth who report high levels of parental support, homelessness will not be associated with more severe suicidality.

METHOD

Participants

Secondary data were obtained from the University of Delaware Center for Drug and Health Studies (CDHS; 2015), which included a sample of 2,433 youth, enrolled in grades 9 through 12, in the Delaware Public Schools who completed the 2015 YRBS. Informed consent was obtained from all individual participants included in the study. All data obtained through CDHS were aggregated and, therefore, deidentified. Permission to perform secondary data analysis was approved by the University of Delaware's Institutional Review Board.

Measures

This research study analyzed data collected from the Delaware Youth Risk Behavior Survey (YRBS) for the 2015–2016 academic school year. The YRBS is administered to middle and high school youth, grades 6 through 12, and has been conducted biannually since its development by the CDC in 1991 (Brener, Collins, Kann, Warren, & Williams, 1995). The YRBS is administered to a random sample of classes in each state. Although every school has an equal opportunity of being selected, schools that are selected can opt out of testing. The survey is anonymous and does not collect any identifying information. Research indicates that adolescents answer the YRBS accurately, and the survey

Table 1. *Demographic Characteristics of Sample by Residential Status (N = 2,133)*

| Characteristic | Homeless (N = 64) | Stably housed (N = 2,049) |
|---------------------------------|----------------------|---------------------------------|
| Gender | | |
| Female | 30 (47%) | 1,093 (53%) |
| Male | 34 (53%) | 956 (47%) |
| Sexual orientation | | |
| Heterosexual | 46 (72%) | 1,833 (89%) |
| LGBTQ | 18 (28%) | 216 (11%) |
| Grade | | |
| 9th | 16 (25%) | 549 (27%) |
| 10th | 14 (22%) | 471 (23%) |
| 11th | 21 (33%) | 785 (38%) |
| 12th | 13 (20%) | 244 (12%) |
| Race/ethnicity | | |
| White | 29 (45%) | 1,046 (51%) |
| Black/African American | 12 (19%) | 458 (22%) |
| Hispanic/Latino | 13 (20%) | 309 (15%) |
| Multi/other | 10 (16%) | 239 (12%) |
| Military | | |
| Parent active duty | 17 (27%) | 213 (10%) |
| Parent not active duty | 47 (73%) | 1,836 (90%) |
| Incarcerated | | |
| Parent incarcerated | 40 (63%) | 484 (24%) |
| Parent not incarcerated | 24 (37%) | 1,565 (76%) |
| Parental support, <i>M (SE)</i> | 6.94 (.61) | 11.36 (.09) |
| Suicidality, <i>M (SE)</i> | 1.55 (.18) | .52 (.02) |
| Bullying, <i>M (SE)</i> | .63 (.09) | .26 (.01) |

Note. Other = Asian, American Indian, Hawaiian/Pacific Islander, and multiracial.

has demonstrated adequate levels of test–retest reliability (Brener et al., 1995, 2002).

Demographic characteristics. Participants reported their age, gender, race/ethnicity, sexual orientation, as well as whether a parent is serving active duty in the military and or has been incarcerated. All demographic variables were self-reported, see Table 1 for more information.

Housing status. A housing question on the YRBS is optional for states to include, and the question can be different from state to state. The current study uses the 2015 Delaware YRBS question, which asked the following: “Where do you typically sleep at night?” The response set included the following five responses: (a) At home with your parent(s) or guardian(s); (b) At a friend’s or relative’s home with your parent(s)

or guardian(s); (c) At a friend's or relative's home without your parent(s) or guardian(s); (d) Somewhere else (such as a shelter, transitional housing, public place, hotel, car) with your parent(s) or guardian(s); (e) Somewhere else (such as a shelter, group home, foster care home, public place, car, hotel) without your parent(s) or guardian(s). A categorical homelessness variable was created by coding (0 = *not homeless*, 1 = *homeless*). This study defined homelessness using the McKinney-Vento Homeless Assistance Act's definition. Therefore, based on the act's definition, participants were considered not homeless and were coded as 0 if they answered the question with the first response, "At home with your parent(s) or guardian(s)," and for all additional responses, participants were considered homeless and were coded as 1.

Bullying. Participants were asked two questions about bullying. When participants reached this point in the survey, the YRBS provided the following definition of bullying:

Bullying is when 1 or more students tease, threaten, spread rumors about, hit, shove, or hurt another student over and over again. It is not bullying when 2 students of about the same strength or power argue or fight or tease each other in a friendly way. (CDC, 2015, p. 6)

Directly after the definition of bullying, the participants were asked the following: (a) "During the past 12 months, have you ever been bullied on school property?" and (b) "During the past 12 months, have you ever been electronically bullied?" (Count being bullied through email, chat rooms, instant messaging, websites, or texting.)

Participants were asked to answer both questions on a dichotomous scale from "yes" to "no." Responses were coded as dichotomous variables (0 = *no*, 1 = *yes*) and summed to create a composite bullying variable. As described earlier, this research included both types of bullying (cyber and in person) to capture all forms of bullying experienced by participants.

Suicidality. Suicidality was assessed by asking four questions about suicide ideation and suicide attempts. The first three questions were as follows: (a) "During the past 12 months, did you ever feel so sad or hopeless almost every day for 2 weeks or more in a row that you stopped

doing some usual activities?" (b) "During the past 12 months, did you ever seriously consider attempting suicide?" and (c) "During the past 12 months, did you make a plan about how you would attempt suicide?" All three questions elicited a "yes" or "no" response. Participants were also asked one question about the number of suicide attempts ("During the past 12 months, how many times did you actually attempt suicide?") and were asked to respond on a 5-point scale from 0 times to 6 or more times. A categorical variable was created based on severity of suicidality (0 = *no feelings of sadness or hopelessness*, 1 = *feelings of sadness or hopelessness*, 2 = *seriously considered attempting suicide*, 3 = *planned to attempt suicide*, and 4 = *suicide attempt*).

Parental support. Participants were asked eight questions about their relationship with their parents (e.g., "My parent(s) show me they are proud of me." and "I can count on my parent(s) to be there when I need them."). Participants were asked to rate their response on a 3-point scale from 0 (*never or almost never*) to 2 (*always or almost always*). Responses were summed to create a composite parental support variable, with a range from 0 to 16.

Data Analysis

First, preliminary analyses explored descriptive statistics to characterize the sociodemographics of the sample. An exploratory factor analysis (EFA) was then run to test the factor loadings for parental support because the underlying structure of the parental support questions on the YRBS is unknown. Finally, the PROCESS macro, a regression-based analysis tool, was run to test for moderated mediation, which tests whether mediation is significant at varying levels of the moderator. Moderated mediation can be tested using one model (i.e., Hayes's model 15; Hayes, 2013). The model will enable the researchers to compare youth experiencing homelessness to youth who are stably housed and analyze which group experiences higher levels of bullying and in turn which group has more severe suicidality, while also testing for moderation of this process. All analyses were run including the entire sample.

RESULTS

Demographic Characteristics

A total of 2,433 youth participated in the study; however, 320 youth were excluded from the study because they did not answer all the questions. Of the 2,133 participants who answered all questions, 64 youth (3%) met the criteria for experiencing homelessness. This percentage is similar to rates found throughout the United States (Armstrong et al., 2018; Brown, Duffield, & Owens, 2018; Morton, Dworsky, & Samuels, 2017). See Table 1 for additional participant sociodemographic characteristics by housing status.

Exploratory Factor Analysis

Principal axis factor analysis was run on the parental support questions because it is the best method for recovering weak factors and is better at handling nonnormal data (Briggs & MacCallum, 2003). This study used a promax rotation with $k = 4$ because it was concluded that any factors would be correlated (Tataryn, Wood, & Gorsuch, 1999). To evaluate each EFA model, the following four rules were used: (a) Scree test (Cattell, 1966), (b) Kaiser's criteria (Kaiser, 1974), (c) minimum average parcels (MAP; Velicer, 1976), and (d) Glorfeld's (1995) extension of parallel analysis (PA; Horn, 1965). Previous research has demonstrated that PA and MAP are the two most accurate methods for retaining the accurate number of factors (Buja & Eyuboglu, 1992; Glorfeld, 1995). Before evaluating the EFA models, the results from Bartlett's test of sphericity (Bartlett, 1954) were analyzed and demonstrated that the correlation matrix contained underlying factor(s) and was not random ($\chi^2 = 10,360.58$; $df = 28$; $p = .001$). Additionally, the results from the Kaiser-Meyer-Olkin (KMO; Kaiser, 1974) statistic were analyzed. The results indicated the KMO statistic was .93, which is above the .60 minimum that was proposed by Kline (1994) and therefore indicates the data are suitable for factor analysis. A one- and two-factor EFA models were rotated. Scree, Kaiser's criterion, MAP, and PA all suggested the one-factor solution best explained the data and that therefore one factor should be retained.

The two-factor solution contained a complex structure with multiple variables loading on both factors, known as a doublet, while the one-factor

Table 2. Rotated Pattern Matrix from the Parental Support Questions (N = 2,133)

| Item | Component |
|--|-----------|
| How often do you get along well with your parent(s)? | .70 |
| How often do your parent(s) spend time with you doing something fun? | .64 |
| My parent(s) show me they are proud of me. | .77 |
| My parent(s) take an interest in me. | .80 |
| My parent(s) listen to me when I talk to them: | .78 |
| I can count on my parent(s) to be there when I need them. | .79 |
| My parent(s) and I talk about what really matters. | .80 |
| I am comfortable sharing my thoughts and feelings with my parent(s). | .70 |
| Eigenvalue | 4.52 |
| % of variance | 56.45 |
| Cumulative % of variance | 56.45 |

Note. All factor loadings are greater than .63, indicating "very good" loadings, according to Comrey and Lee (1992).

solution demonstrated that all variables showed very good factor loadings on the one factor, known as simple structure (Field, 2005). Therefore, the one-factor solution was accepted, given that all four rules pointed to one factor, as well as the simple structure of the one factor. According to Comrey and Lee (1992) to have "very good" loadings, the coefficient for each variable must be greater than .63. This standard was used to determine appreciable loadings (see Table 2).

Moderated Mediation

Results of the regression analyses using Hayes's PROCESS model are displayed in Tables 3 and 4. As indicated by Table 3, a statistically significant positive association existed between experiencing homelessness and bullying, $B(SE) = 0.29(0.07)$, $p = .001$. Therefore, youth who were experiencing homelessness also reported experiencing more bullying.

As indicated by Table 4, the relation between experiencing homelessness and suicidality was not significant, $B(SE) = 0.30(0.24)$, $p = .221$. Even though this relation was not significant, mediation was examined because mediation

Table 3. Results of Regression Analysis Predicting Bullying (N = 2,133)

| Variable | B (SE) | p value |
|---|--------------|---------|
| Experiencing homelessness | 0.29 (0.07) | .001*** |
| Gender ^a | -0.11 (0.02) | .001*** |
| Grade level | -0.03 (0.01) | .034* |
| Sexual orientation ^b | 0.19 (0.04) | .001*** |
| Hispanic/Latino ^c | -0.07 (0.04) | .051 |
| Multi/other ^d | -0.07 (0.04) | .069 |
| Black ^e | -0.16 (0.03) | .001*** |
| Parental incarceration ^f | 0.13 (0.03) | .001*** |
| Parent(s) active-duty military ^g | 0.01 (0.04) | .969 |

Note. ^a0 = female and 1 = male. ^b0 = heterosexual and 1 = gay or lesbian, bisexual, or not sure. ^c0 = not Hispanic/Latino and 1 = Hispanic/Latino. ^d0 = not multi/other (i.e., Asian, American Indian, Hawaiian/Pacific Islander, and multiracial) and 1 = multi/other. ^e0 = not Black and 1 = Black. ^f0 = parent(s) not incarcerated and 1 = parent(s) incarcerated. ^g0 = parent(s) not active duty military and 1 = parent(s) active duty military. White was used as the reference group. * $p < .05$. ** $p < .01$. *** $p < .001$.

is possible even when there is no statistically significant relation between the independent and dependent variables (MacKinnon & Fairchild, 2009). In addition, a statistically significant positive association existed between bullying and suicidality, $B(SE) = 0.70(0.10)$, $p = .001$. This relation demonstrated that youth who experienced more bullying had more severe suicidality. A statistically significant negative association between parental support and suicidality, $B(SE) = -0.07(0.01)$, $p = .001$, such that youth with lower levels of parental support had more severe suicidality. The interaction term between homelessness and parental support was not significant, $B(SE) = 0.04(0.03)$, $p = .192$. However, the interaction term between bullying and parental support was statistically significant $B(SE) = -0.02(0.01)$, $p = .031$. The results indicate that parental support did not moderate the effect between homelessness and suicidality; however, it did moderate the effect between bullying and suicidality, as shown in Figure 1.

The conditional indirect effect was examined further to understand the indirect effect of homelessness on suicidality through bullying at three levels of parental support, see Table 5. At low levels, $B(SE) = 0.16(0.06)$, 95% confidence interval (CI) [0.06, 0.28]; moderate levels, $B(SE) = 0.13(0.05)$, 95% CI [0.05, 0.23]; and

Table 4. Results of Regression Analysis Predicting Suicidality (N = 2,133)

| Variable | B (SE) | p value |
|---|--------------|---------|
| Experiencing homelessness | 0.30 (0.24) | .221 |
| Bullying | 0.70 (0.10) | .001*** |
| Parental support | -0.07 (0.01) | .001*** |
| Parental support*bullying | -0.02 (0.01) | .031* |
| Parent support*homelessness | 0.04 (0.03) | .192 |
| Gender ^a | -0.26 (0.06) | .001*** |
| Grade level | -0.02 (0.02) | .480 |
| Sexual orientation ^b | 0.64 (0.07) | .001*** |
| Hispanic/Latino ^c | 0.10 (0.07) | .135 |
| Multi/other ^d | 0.11 (0.07) | .122 |
| Black ^e | -0.03 (0.06) | .599 |
| Parental incarceration ^f | 0.14 (0.06) | .012* |
| Parent(s) active duty military ^g | 0.03 (0.07) | .677 |

Note. ^a0 = female and 1 = male. ^b0 = heterosexual and 1 = gay or lesbian, bisexual, or not sure. ^c0 = not Hispanic/Latino and 1 = Hispanic/Latino. ^d0 = not multi/other (i.e., Asian, American Indian, Hawaiian/Pacific Islander, and multiracial) and 1 = multi/other. ^e0 = not Black and 1 = Black. ^f0 = parent(s) not incarcerated and 1 = parent(s) incarcerated. ^g0 = parent(s) not active duty military and 1 = parent(s) active duty military. White was used as the reference group. * $p < .05$. ** $p < .01$. *** $p < .001$.

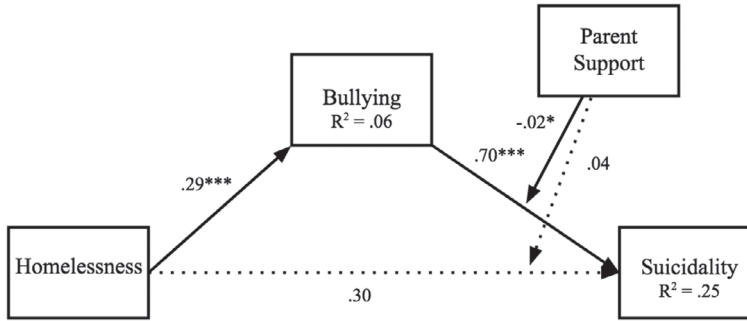
Table 5. Indirect Effect of Homelessness on Suicidality Through Bullying at Different Levels of Parental Support (N = 2,133)

| Level | Value | B (SE) | 95% CI |
|----------|-------|-------------|--------------|
| Low | 7.00 | 0.16 (0.06) | [0.06, 0.28] |
| Moderate | 12.00 | 0.13 (0.05) | [0.05, 0.23] |
| High | 15.00 | 0.12 (0.04) | [0.04, 0.21] |

Note. CI = confidence interval.

high levels, $B(SE) = 0.12(0.04)$, 95% CI [0.04, 0.21] of parental support, homelessness was associated with suicidality via the mediator of greater bullying. These results demonstrate that bullying mediates the relation between homelessness and suicidality and that moderation was significant at low, moderate, and high levels of parental support. The strength of the indirect effect became weaker at higher levels of parental support, but it did not become nonsignificant.

FIGURE 1. CONCEPTUAL MODEL DISPLAYING RESULTS. THE BOLD LINES ARE SIGNIFICANT AT $P < .05$, AND THE DOTTED LINES ARE NOT SIGNIFICANT AT $*P > .05$, $**P < .01$, $***P < .001$.



DISCUSSION

Using data obtained from the YRBS, the relation among homelessness, bullying, and suicidality was analyzed using Hayes's PROCESS model to examine the following research questions: (a) Does bullying mediate the relation between experiencing homelessness and suicidality? (b) Does parental support moderate the relation between bullying and suicidality? and (c) Does parental support moderate the relation between experiencing homelessness and suicidality?

Hypothesis 1 was supported because youth experiencing homelessness were bullied more than their stably housed peers and had more severe suicidality. On the basis of the results from the indirect effect, bullying is a mechanism that could explain the relation between homelessness and suicidality. Research with youth from low-income families demonstrated that these youth are more likely to be exposed to bullying at school and are more likely to experience negative, long-term mental health outcomes from being bullied (Carlson, 2006; Due et al., 2009). An ICPH (2018) report stated that youth experiencing homelessness who were also bullied were more likely to experience depressive symptoms than youth experiencing homelessness who were not bullied. However, none of these studies specifically examined bullying as a mechanism to explain the relation between homelessness and suicidality. Although this study's cross-sectional nature limits its interpretations, the findings still contribute to the literature by providing a potential mechanism and, thereby, supports the need for continued research on bullying

and suicidality among youth experiencing homelessness.

Additionally, Hypothesis 2 was supported. The results suggested that parental support moderates the relation between bullying and suicidality for youth experiencing homelessness. At low levels of parental support, bullying was associated with more severe suicidality, and at high levels of parental support, bullying was not associated with more severe suicidality. Previous research has shown that being bullied by peers can lead to depression and feelings of loneliness and hopelessness, which can all lead to suicide ideation and attempts (Bonanno & Hymel, 2010; Hinduja & Patchin, 2010; Stewart, Valeri, Esposito, & Auerbach, 2018). On the basis of this study, youth who had high levels of parental support reported their parents were supportive by doing things such as listening to them when they needed to talk, by feeling like they could count on their parents, and by feeling comfortable talking to their parents. Therefore, high levels of parental support might have acted as a moderator by lessening depressive symptoms and feelings of loneliness and hopelessness for these youth. In addition, the findings from this subpopulation of youth is consistent with previous research suggesting that parental support acts as a buffer and can mitigate the negative effects experienced from being bullied (Baldry & Farrington, 2005; Stadler et al., 2010; Yeung & Leadbeater, 2010). Parental support can moderate the relation between bullying and mental health outcomes, such as suicidality (Baldry & Farrington, 2005; Bonanno & Hymel, 2010). For example, one study found that youth who were bullied and who have higher levels of parental

support are at a lower risk of suicide ideation than youth who are bullied and have lower levels of parental support (Bonanno & Hymel, 2010). The current study extends Bonanno and Hymel's (2010) study by replicating their findings for youth experiencing homelessness.

Finally, contrary to previous scholarship, Hypothesis 3 was not supported. One potential reason is that the current study only examined parental support. It is possible that a different type of social support moderates the relation between homelessness and suicidality. Previous research has demonstrated that friends, sexual partners, stably housed adults, service providers, and family members provide social support for youth experiencing homelessness (la Haye et al., 2012; Wenzel et al., 2012). Another potential explanation is that although experiencing homelessness and experiencing bullying are two related stressors, there could be something different about these two stressors. As indicated by the results, parental support only moderated the relation between bullying and suicidality, not homelessness and suicidality. One potential way that these two stressors could be different is that homelessness could be a stressor stemming from familial conflict, whereas bullying could be a stressor stemming from peer conflict. For example, many youth experiencing homelessness left their homes because of family conflict, trauma, or abuse (Mallett, Rosenthal, & Keys, 2005; Zerger, Strehlow, & Gundlapalli, 2008). Youth have also reported familial abuse, abandonment, and rejection before experiencing homelessness (Ferguson, 2009). The ways in which homelessness and bullying are related and different from one another should continue to be explored in future research to better understand this finding.

Limitations and Future Directions

Several limitations may have influenced the outcomes of this research. The first limitation is the data were based on cross-sectional research; and therefore, we are unable to determine whether the results are causal or a trend over time. However, even with the cross-sectional data, the results indicate that there is a relation between these variables; and this study can provide a foundation for future research. Longitudinal data should be collected because, at this time, there are no such data available for these variables. Running this model using

longitudinal data would provide valuable insight into the causal relation between these variables. Another limitation is the construction of the homelessness question and the bullying questions. The homelessness question asks, "Where do you typically sleep?" and does not provide a time frame (e.g., the past 30 days). Therefore, it is recommended that the CDC ensure that each state electing to include a question about homelessness also provide a time frame to capture more precisely the number of students experiencing homelessness. In addition, the bullying questions did not include queries about the frequency and severity of bullying or bullying that is occurring in person outside of school. It is also recommended that the CDC capture this information to better understand the experiences of youth who are bullied.

Youth experiencing homelessness represent a small portion of the population (e.g., Armstrong et al., 2018; Brown et al., 2018; Morton et al., 2017); therefore, samples are usually small. This may be considered a methodological problem for strict methodologists, but due to the crucial issues affecting these youth, this population needs to be better understood. It is also important for future research with larger sample sizes to examine how youth experiencing homelessness receive support from parents and how parental support differs based on whether the youth are experiencing homelessness with or without their parents. Finally, the data were based on self-report measures. The questions used in this study related to homelessness, bullying, and suicidality may have been difficult to report or recall for participants, which could have affected the overall the rate with which youth responded to the survey. Although youth were informed their responses would be anonymous, it is unclear whether youth did not respond to certain questions based on the difficulty of reliving those experiences. Therefore, it is recommended that future research use data from multiple sources and perspectives (i.e., teachers and parents), as well as observational studies to understand the extent to which these experiences are occurring.

Implications

This study provides insights into factors that affect the well-being of youth experiencing homelessness. Findings contribute to the need in cultivating positive parent–youth relationships

in school and community settings for the more than 1.35 million youth experiencing homelessness across the United States (NCHE, 2019). In the school context, findings suggest that personnel in each school district should monitor youth experiencing homelessness to ensure they are provided mental health screenings and schedule regular meetings with school counselors because they are at a greater risk of experiencing bullying and have more severe suicidality. School personnel should also provide opportunities to develop and foster strong school–family partnerships to keep parents involved in their child’s schoolwork and provide opportunities to further develop supportive parent–youth relationships.

In regard to human services, findings inform programming for both adult and youth homeless shelters. For example, homeless shelters that provide services for families and adults should offer structured opportunities for parents to learn and discuss the significance of supportive parent–youth relationships. These services could develop or strengthen opportunities for parents and youth to spend time together as a way to continue developing supportive parent–youth relationships. Furthermore, youth homeless shelters could provide similar opportunities in addition to providing youth with interpersonal tools and skills (i.e., social–emotional, conflict resolution) to increase their ability to positively navigate strained familial relationships and or nurture nonfamilial adult relationships. Many youth leave environments and families that create stress and trauma; however, these youth still seek out support and guidance from parents or other adults, and also they may wish to mend family relationships (Aviles de Bradley, 2011). Providing these types of services could have profound impacts on youth and families by supporting positive family functioning and positive parent–youth relationships, in addition to improving the well-being and positive coping skills of youth experiencing homelessness.

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