THE ROLE OF SLEEP IN THE RELATION BETWEEN COMMUNITY VIOLENCE EXPOSURE AND DELINQUENCY AMONG LATINO ADOLESCENTS

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Little is known about factors that account for the link between community violence exposure (CVE) and delinquency among adolescents. Sleep is one factor that warrants attention, given the poor sleep habits found among many adolescents and its relation to CVE and delinquent behaviors. Further, given the growing rate of Latino youth in the United States, and their risk for CVE, examining factors that account for this relation among Latino youth is essential for developing culturally sensitive interventions. This study evaluated whether sleep problems accounted for the link between CVE and delinquency among a sample of 144 Latino adolescents (54% male; ages 14—19 years). CVE and sleep problems were uniquely related to delinquency. Further, Meeker’s test of indirect effects indicated that sleep problems partially accounted for the relation between CVE and delinquency. Interventions targeting sleep problems in Latino adolescents may aid in reducing delinquency among Latino adolescents, particularly for those with CVE. © 2014 Wiley Periodicals, Inc.

Community violence exposure (CVE) is a major public health concern, particularly among adolescents and young adults. A significant proportion of adolescents in the United States have witnessed violence in their community, with estimates ranging from 38% to > 90% of youth with CVE (Stein, Jaycox, Kataoka, Rhodes, & Vestal, 2003; Zinzow et al., 2009). Extant research suggests that exposure to community violence puts youth at risk for...
numerous mental health outcomes, including both internalizing and externalizing problems (Lynch, 2003; Margolin & Gordis, 2000; Overstreet, 2000; Zinzow et al., 2009). With the rise in delinquency often observed during adolescence (Moffitt, 1993), adolescents exposed to community violence may be particularly at risk for engagement in delinquency. Despite the negative outcomes associated with CVE among youth, little is known about factors that account for this relation (Rosario et al., 2003).

Sleep is one factor that warrants attention given the poor sleep habits found among many adolescents (Owens & Witmans, 2004), and its relation to both CVE (Cooley-Quille & Lorion, 1999) and delinquent behaviors (O’Brien & Mindell, 2005). This relation is particularly important to examine among Latino adolescents; with approximately 26.6% of Latinos residing in the United States living below the poverty line (U.S. Census Bureau, 2011), Latino youth may be at risk for residing in neighborhoods with high levels of community violence. Understanding the implications of CVE on Latino youth can inform the development of culturally sensitive prevention and intervention programs to address the deleterious effects of CVE within this population. Thus, the current study examined whether sleep problems accounted for the link between CVE and engagement in delinquency among a sample of Latino adolescents.

CVE and Delinquency

CVE, which can include both witnessing and being a victim of violence, puts youth at risk for mental and behavioral health problems (Lynch, 2003). Social cognitive theory suggests that exposure to violence may increase the likelihood of youth engaging in aggressive behaviors by influencing the way youth perceive and respond to potentially threatening situations (Bandura, 1986). Indeed, extant research provides evidence for a link between CVE and externalizing behaviors, such as aggression, substance use, and other delinquent acts, among adolescents residing in inner city communities (Farrell & Bruce, 1997; Gorman-Smith & Tolan, 1998; Kilpatrick et al., 2000; Miller, Wasserman, Neugebauer, Gorman-Smith, & Kamboukos, 1999; Singer, Anglin, Song, & Lunghofer, 1995). This relation has been shown to hold even when accounting for prior levels of externalizing behaviors (Gorman-Smith & Tolan, 1998; Miller et al., 1999).

Despite the risk of Latino youth residing in neighborhoods with high rates of community violence, little research has examined the link between CVE and delinquency among Latino samples. Examining this relation among samples of Latino youth is important to understand within-group differences and inform culturally sensitive intervention development. One study examining this relation among a sample of Latino adolescents found that exposure to neighborhood violence increased the risk of substance use (Garcia, Manongdo, & Cruz-Santiago, 2010). Another study conducted among a sample of sixth-grade Latino youth found that CVE was significantly related to violent thoughts and behaviors, substance use, and general delinquency (Peacock, McClure, & Agars, 2003). Thus, CVE is an important factor to consider in the development of delinquent behaviors among Latino youth.

The Role of Sleep

In addition, to further understand the link between CVE and delinquency among Latino youth, research is warranted to examine factors that may account for this link. Sleep is one area to consider in understanding the mechanisms by which CVE is related to delinquency, given that sleep behaviors have numerous implications for physical, cognitive,
Sleep, Community Violence Exposure, and Delinquency

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and emotional development in youth (e.g., Fallone, Owens, & Deane, 2002). Further, many youth and adults experience sleep disturbances, such as difficulty falling or staying asleep, sleep interruptions related to chronic illness, and sleep disorders (Smaldone, Honig, & Byrne, 2007). Adolescence, in particular, is marked by poor sleep habits (e.g., Owens & Witmans, 2004). Although the recommended sleep needs are similar for school-aged children (10–11 hours) and adolescents (9–9.25 hours; Owens & Witmans, 2004), sleep tends to decrease during adolescence. A number of factors may account for sleep problems in adolescents, such as pubertal changes, different expectations (e.g., earlier school start times, increased homework, after-school jobs), and differences between week and weekend schedules (Carskadon, Vieira, & Acebo, 1993; Owens & Witmans, 2004; Szymczak, Jasinska, Pawlak, & Zwierzynkowska, 1993).

Contextual factors, such as the neighborhoods in which adolescents reside, may also influence sleep problems. For instance, youth who reside in more disadvantaged neighborhoods are found to have poorer sleep habits and may be at risk for sleep disorders compared to youth in less disadvantaged neighborhoods (Brouillette, Horwood, Constantin, Brown, & Ross, 2011; Moore et al., 2011; Spilsbury et al., 2006). This may be due to a variety of factors, including increased exposure to allergens and toxins that lead to sleep disorders, increased environmental noise, and exposure to stressors that may disproportionately occur in these neighborhoods, such as community violence (Attar, Guerra, & Tolan, 1994; Chen, Matthews, & Boyce, 2002; Spilsbury et al., 2006). In addition, research has found that ethnic minority youth are more at risk for sleep problems than White, non-Hispanic youth. For instance, one study found that Mexican American youth were at higher risk for insomnia than White non-Hispanic youth (Roberts, Roberts, & Chen, 2000).

Youth exposed to community violence may be at risk for sleep problems due to the psychological and biological influences of stress experienced by those with CVE (Compas, 2006; Lynch, 2003). For instance, CVE may trigger an allostatic response, or a psychological and biological response to stress, which results in the release of stress hormones (McEwen, 1998). This release of stress hormones may lead to physiological and mental arousal responses in the body (McEwen, 1998; Hill, Burdette, & Hale, 2009), which in turn may negatively affect sleep if these responses are not turned off. In one of the few known studies to examine the relation between CVE and sleep, Cooley-Quille and Lorion (1999) found that, within their pilot study of 64 urban adolescents, those participants exposed to high levels of community violence reported numerous sleep problems. Given that sleep can be targeted through interventions and can have public health implications (U.S. Department of Health and Human Services, 2008), more research examining the relation between CVE and sleep is warranted.

An emerging body of research also indicates that insufficient sleep and other indices of sleep disturbances are associated with externalizing problems, including aggression, substance use, and delinquency, among children and adolescents (e.g., Aronen, Paavonen, Fjallberg, Soininen, & Torronen, 2000; Gregory & O’Connor, 2002; Haynes et al., 2006; Johnson & Breslau, 2001; Pesonen et al., 2010; Velten-Schurian, Hautzinger, Poets, & Schlarb, 2010). Sleep problems in high school students, for example, have been associated with greater participation in risk-taking behaviors related to safety, violence, and sexual activity, as well as tobacco, alcohol, and drug use (O’Brien & Mindell, 2005). Correspondingly, Catrett and Gaultney (2009) found that possible insomnia, defined as disturbed sleep and morning tiredness, predicted smoking, drinking and driving, and delinquency among adolescents. Of particular note, one recent study examined the association between sleep duration and delinquent behavior in a large, nationally representative
sample of adolescents in the United States (Clinkinbeard, Simi, Evans, & Anderson, 2011). Results indicated that youth who typically received insufficient sleep reported engaging in significantly more property and violent delinquency than youth who met the recommended sleep requirements.

This link between sleep problems and externalizing behavior may be related to decision making. Specifically, sleep deprivation has been shown to impair decision making, with individuals exposed to sleep deprivation exhibiting greater expectation of rewards and diminished response to losses after making risky choices compared to when they are in a rested state (Venkatraman, Chuah, Huettel, & Chee, 2007). Reduced sleep duration has also been linked to higher levels of impulsivity and emotional lability (Gruber, Cassoff, Frenette, Wiebe, & Carrier, 2012). These findings suggest that sleep disturbances may increase the risk for engaging in delinquent behavior among youth. Thus, further research examining the association between sleep and delinquency in the context of other interpersonal and environmental stressors is needed. Given the risk of sleep disturbances found among adolescents exposed to community violence and the influence of sleep on youth’s mental health, sleep problems may serve as a mechanism underlying the relation between CVE and delinquent behavior. Moreover, examining these associations among a sample of Latino adolescents may aid in the development of culturally and developmentally sensitive interventions.

**Current Study**

Although the population of Latino youth in the United States continues to grow at a rapid pace (Ennis, Rios-Vargas, & Albert, 2011; Passel & Cohn, 2008), little research has examined factors that influence mental health outcomes among this population. Further, given the risk of Latino youth residing in inner city communities where community violence is widespread, examining factors that account for the relation between CVE and mental health among this population is warranted. The purpose of the current study is to evaluate whether sleep problems accounted for the link between CVE and engagement in delinquency among a sample of Latino adolescents. It was expected that sleep problems would partially account for the relation between CVE and engagement in delinquency. Because males are more likely to report engagement in delinquency than females (Coie & Dodge, 1998), gender was controlled for in the analysis. This analysis also controlled for time spent living in the United States to account for heterogeneity within the sample that may exist due to varying time participants have lived in the United States (Roosa et al., 2008).

**METHODS**

**Participants**

Participants included 144 Latino adolescents recruited from a charter high school located in a large, Midwestern city. School records indicated that 95.4% of students at this school qualified for free or reduced lunch fees, suggesting that this is primarily a low-income sample. Recruitment occurred during parent–teacher conferences. Researchers set up a table in the school’s main hallway and provided information to parents and caregivers attending conferences. Parents and caregivers who were interested in enrolling their youth in the study provided written informed consent. Because the majority of parents
at the school speak Spanish as their primary language, consent forms were provided in both Spanish and English. In addition, school-sanctioned translators assisted in providing information and answering families’ questions about the study. Consent forms were sent home to parents who did not attend conferences and were returned to the school, with the school then providing these forms to the research team. Students who were 18 years of age or older were allowed to provide their own written consent to participate.

A total of 155 (77%) students received written consent to participate, of the 207 students enrolled in the school. Of these 155 students with consent, 142 received parental consent and 13 were old enough to provide their own consent. Approximately two thirds of the returned consent forms were the Spanish version. Of the 155 students with written consent to participate, 152 (98%) completed the survey. In the current study, the 144 participants who self-identified as Latino/Hispanic on a demographics form of the survey were included in the analysis. The sample included 78 males and 66 females with an age range of 14–19 years (mean $M = 16.25$, standard deviation $SD = 1.46$). This study was approved by the researchers’ institutional review board.

### Procedures

Participants completed the survey during a writing class required by all students. Class sizes ranged from 9–24 students. Assent was obtained from participants prior to completing the survey. One trained researcher was present in each class and read each survey item aloud to students. Students filled out the surveys on their own, and most completed the survey in 30 minutes. No school personnel were present in the room and surveys were administered to increase participants’ comfort in completing the survey. Prior to data collection, the school provided names of students who might prefer taking the survey in Spanish and these students were given the option of completing the survey in Spanish. Three students completed the Spanish version of the survey. Participants were given a $5.00 debit card for their participation. Study documents were translated by a school-sanctioned translator.

### Measures

**Demographics.** Participants responded to demographic questions, including age, gender, ethnicity, and time spent living in the United States. Time spent living in the United States was divided by age to account for participants’ age in this variable.

**CVE.** Community violence exposure was assessed using five items measured on a 4-point Likert scale ranging from 1 (never) to 4 (often) (Sampson, Raudenbush, & Felton, 1997). The five items examined exposure to different kinds of violence within the past 6 months, including a fight involving a weapon, violent argument, gang fight, murder, and robbery or mugging. Items were averaged, with higher scores indicating exposure to higher levels of community violence. This measure demonstrated good internal consistency within the current sample ($\alpha = .83$).

**Sleep problems.** Sleep problems were assessed using the 14-item Sleep/Wake Problem Behavior scale from the Sleep Habits Survey (Wolfson & Carskadon, 1998). The scale examines the occurrence of sleep problems in the past 2 weeks (e.g., “In the last two weeks, how often have you awakened too early in the morning and couldn’t get back to sleep?”) using a 5-point Likert scale ranging from 1 (never) to 5 (every day/night). Two items (“Felt satisfied with your sleep” and “Had a good night’s sleep”) were reverse coded to be consistent
Table 1. Descriptive Statistics of Study Variables

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Age</td>
<td>–10</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Time spent in United States</td>
<td>.09</td>
<td>.08</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Mean of community violence exposure</td>
<td>–11</td>
<td>–.05</td>
<td>.04</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Mean of sleep problems</td>
<td>.15</td>
<td>.03</td>
<td>.14</td>
<td>.33**</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Sum of self-delinquency</td>
<td>–.17*</td>
<td>–.01</td>
<td>.21*</td>
<td>.41**</td>
<td>.42**</td>
<td>–</td>
</tr>
<tr>
<td>Mean</td>
<td>–</td>
<td>16.25</td>
<td>.76</td>
<td>2.08</td>
<td>2.17</td>
<td>3.33</td>
</tr>
<tr>
<td>Standard deviation</td>
<td>–</td>
<td>1.46</td>
<td>.27</td>
<td>.78</td>
<td>.55</td>
<td>3.27</td>
</tr>
</tbody>
</table>

Note. Gender: 1 = males; 2 = females.
*p < .05. **p < .01.

with scoring. Responses were averaged, with higher scores indicating more sleep problems. In the current sample, internal consistency was adequate (α = .73).

Engagement in delinquency. Engagement in delinquency was assessed using adolescent self-report on 14 items about whether they had engaged in various antisocial and deviant behaviors within the past year (1 = yes, 0 = no; Fergusson, Woodward, & Horwood, 1999). Items asked about delinquent behaviors such as school truancy, police contact, and property damage. Items were summed, with higher scores representing greater engagement in delinquency. Internal consistency was not computed for the measure due to dichotomous response options (Cohen, Cohen, West, & Aiken, 2003).

RESULTS

Descriptive Statistics

Descriptive statistics were calculated to determine the prevalence rate of CVE, sleep problems, engagement in delinquency, proportion of time participants lived in the United States, age, and gender (Table 1). Only 12 participants (8%) reported no CVE in the past 6 months. The most commonly reported CVE in the past 6 months was a violent argument between neighbors, with 76% reporting that this happened rarely, sometimes, or often, followed by a robbery or mugging (70%), a fight in which a weapon was used (67%), gang fights (53%), and murder (46%). With regards to sleep problems, only 1 participant (0.7%) reported no sleep problems.

Table 2 lists the proportion of participants who reported experiencing each sleep problem at least 1 to 2 times in the past 2 weeks, with the most commonly reported sleep problem being that youth felt tired, dragged out, or sleepy during the day (92%). When examining engagement in delinquency, 78% of participants reported engaging in at least one delinquent act in the past year (M = 3.33, SD = 3.27). The most commonly reported delinquent acts were using alcohol without their parents’ permission (50%) and hitting or threatening to hit someone other than a family member (38%). Participants in this study also reported spending an average of 76% of their life in the United States (SD = .27).

Correlation analyses were calculated to examine the bivariate associations between study variables (Table 1). Analyses indicated a positive relation between CVE and sleep, with youth who had high levels of CVE also reporting high levels of sleep problems.
Table 2. Sleep Problems in the Past 2 Weeks

<table>
<thead>
<tr>
<th>Item</th>
<th>% experienced in the past 2 weeks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Felt tired, dragged out, or sleepy during the day</td>
<td>92</td>
</tr>
<tr>
<td>Felt satisfied with your sleep</td>
<td>87</td>
</tr>
<tr>
<td>Had a good night’s sleep</td>
<td>87</td>
</tr>
<tr>
<td>Gone to bed because you just could not stay awake any longer</td>
<td>67</td>
</tr>
<tr>
<td>Stayed up until at least 3 a.m.</td>
<td>67</td>
</tr>
<tr>
<td>Needed more than one reminder to get up in the morning</td>
<td>64</td>
</tr>
<tr>
<td>Fallen asleep in a morning class</td>
<td>58</td>
</tr>
<tr>
<td>Awakened too early in the morning and couldn’t get back to sleep</td>
<td>57</td>
</tr>
<tr>
<td>Slept in past noon</td>
<td>55</td>
</tr>
<tr>
<td>Had an extremely hard time falling asleep</td>
<td>55</td>
</tr>
<tr>
<td>Arrived late to class because you overslept</td>
<td>46</td>
</tr>
<tr>
<td>Stayed up all night</td>
<td>45</td>
</tr>
<tr>
<td>Fallen asleep in an afternoon class</td>
<td>42</td>
</tr>
<tr>
<td>Had nightmares or bad dreams during the night</td>
<td>31</td>
</tr>
</tbody>
</table>

Youth who reported high levels of CVE also reported high engagement in delinquency. A positive relation was also seen between sleep problems and engagement in delinquency, with adolescents reporting high levels of sleep problems also reporting high engagement in delinquency. Participants who spent more time living in the United States also reported engaging in more delinquency. Boys reported engaging in more delinquent acts than girls.

**Indirect Effect**

A multiple regression approach was used to evaluate the proposed indirect effects, as outlined by Baron and Kenney (1986). First, sleep problems were regressed on CVE. Findings indicated that CVE was significantly related to sleep problems \( (B = 0.24, p < .001) \) when also considering gender and proportion of time spent living in the United States. Next, CVE was regressed on engagement in delinquency while controlling for gender and proportion of time spent living in the United States, and a significant relation emerged \( (B = 1.63, p < .0001) \). Finally, engagement in delinquency was simultaneously regressed on both CVE and sleep problems. As expected, both CVE \( (B = 1.13, p = .001) \) and sleep problems \( (B = 2.03, p < .001) \) were uniquely related to delinquency.

To determine if sleep significantly accounted for the relation between CVE and delinquency engagement, Meeker’s test of indirect effects was used (MacKinnon, Lockwood, & Williams, 2004). Meeker’s test of indirect effects has been found to provide a better balance between Type I and Type II errors than Sobel’s test of indirect effects (MacKinnon et al., 2004). As expected, results indicated that sleep problems significantly accounted for the relation between CVE and delinquency \( (B = .49, 95\% \text{ CI} [.13, .87]) \), with sleep problems accounting for 30% of the variance between CVE and delinquency.

**DISCUSSION**

This is the first known study to examine the role of sleep in the relation between CVE and delinquency. Findings from this study suggest that, among low-income Latino adolescents, sleep problems partially account for the relation between CVE and engagement in delinquency, as youth with high levels of CVE also reported high levels of sleep problems,
which in turn was related to high engagement in delinquency. This study furthers our understanding of factors that account for the link between CVE and delinquency among Latino adolescents, one of the fastest growing populations in the United States.

As expected, CVE was positively related to engagement in delinquency in this sample. This finding is consistent with prior research that has found a link between CVE and engagement in delinquent acts, such as substance use and aggression (Farrell & Bruce, 1997; Gorman-Smith & Tolan, 1998; Kilpatrick et al., 2000; Miller et al., 1999; Singer et al., 1995). The current study adds to the literature by examining this relation in a sample of Latino adolescents, a population often understudied despite their growing rate in the United States. This relation is particularly important to examine in Latino youth, considering that this population is at risk for residing in inner city communities in which much community violence occurs (Roosa et al., 2010).

Given the association between CVE and engagement in delinquency found among the current sample, interventions developed for Latino youth exposed to community violence may wish to include prevention strategies to limit engagement in delinquency among this at-risk population. Future research is also warranted to examine factors salient to adolescents, and Latino youth in particular, such as acculturation and social support, in identifying factors that may account for the relation between CVE and engagement in delinquency among this population.

Consistent with previous research (Cooley, & Lorion, 1999; Wolfson & Carskadon, 1998), adolescents in this sample reported numerous sleep problems. Sleep problems during adolescence are common due to developmental changes that occur during this time period (Owens & Witmans, 2004). In addition, CVE was positively related to sleep problems. Previous research has found that youth residing in highly disadvantaged neighborhoods are at increased risk of sleep problems (Brouillette et al., 2011; Hill et al., 2009; Moore et al., 2011; Spilsbury et al., 2006). Despite the high prevalence of community violence in disadvantaged neighborhoods, however, little research has examined the link between CVE and sleep (Cooley & Lorion, 1999).

Findings from the current study indicate that youth exposed to community violence should be monitored for sleep problems, particularly given the importance of sleep on physical, cognitive, and emotional development (Fallone et al., 2002). Improving sleep among youth with CVE may allow them to better cope with the stressors of CVE by allowing sleep to provide its restorative effects on the body (Hamilton, Nelson, Stevens, & Kitzman, 2007). Therefore, interventions developed for youth with CVE may wish to incorporate sleep as a component of the intervention. Future research should examine factors that may buffer the link between CVE and sleep, such as peer and family factors, to identify youth exposed to community violence who are at the highest risk for sleep problems and inform intervention efforts. In addition, research is warranted that examines contextual factors accounting for sleep problems in youth exposed to community violence, such as environmental noises, housing/household conditions, family factors, and peer relations, to better understand sleep habits among youth in these environments.

As found in prior research, findings from this study suggest a link between sleep problems and engagement in delinquency among this population. Recent research has suggested a clustering effect for risky behaviors in adolescence, including poor sleep habits, substance use, aggression, and delinquency (van Nieuwenhuijzen et al., 2009). This suggests that a more comprehensive intervention approach that together addresses a range of risky behaviors and poor health behaviors may be warranted. Longitudinal research and research examining factors that reduce or exacerbate these behaviors, such as parental supervision and attachment (Clinkinbeard et al., 2011), school attendance,
and peer affiliation, is needed to assist in developing comprehensive prevention and intervention efforts.

Further, as hypothesized, sleep problems partially accounted for the link between CVE and engagement in delinquency. This builds on previous research with an adult sample, which found that sleep quality mediated the relation between neighborhood disorder and psychological distress (Hill et al., 2009). The findings from the current study suggest that interventions targeting sleep problems among Latino adolescents may have implications for reducing engagement in delinquency among this population, particularly for those exposed to community violence. Research examining sleep interventions on delinquent acts has shown promising results. For instance, one study examined a sleep intervention for youth treated for substance use and found that participating in the intervention may reduce substance use one year later (Bootzin & Stevens, 2005). Further examining the role of sleep in preventing and reducing engagement in delinquency among youth with CVE is an important area of future inquiry.

The current study should be considered within the context of several limitations. Study participants attended a charter school with an emphasis on improving social, academic, and occupational outcomes for students; although this school is free to attend, parents must seek out this school system as an alternative to their neighborhood public school. Future research should examine the relationships described in the current study in samples of Latino youth attending public or private schools. Further, although certain measures were taken to account for the heterogeneity of this population, such as offering study documents in both Spanish and English as well as controlling for time spent living in the United States in the regression analysis, certain factors that may be relevant to this population, such as country of origin and acculturation, warrant examination in future research to better understand within-group differences (Roosa et al., 2008). In addition, all of the data in the current study were collected via self-report and was cross-sectional in nature; future research should consider multiple data collection measures, such as parent- or teacher-reported data, as well as longitudinal examinations of these relations. Finally, future research should evaluate sleep problems in greater detail. For example, it will be important to further assess the nature and causes of sleep problems, and consider whether different aspects of impaired sleep (e.g., neighborhood noise keeping a child awake vs. a clinical sleep disorder) lead to different outcomes for Latino youth.

Despite these limitations, findings from this study suggest that sleep may be an important behavior to target to prevent or reduce the deleterious effects of CVE among youth, particularly delinquent acts. As this is one of the first known studies to examine this relation, future research should continue to examine these relations to better inform intervention efforts. For instance, research may wish to consider the role of peers in sleep, CVE, and engagement in delinquency, given the increasing importance of peers among adolescents. Factors relevant to Latino youth, such as country of origin and acculturation, should also be examined in order to understand the heterogeneity within this population. Overall, this study suggests that sleep is an important area of further investigation and intervention for Latino youth exposed to community violence.

REFERENCES


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