Editorial

Are Substance Use and Bullying Perpetration Two Sides of the Same Coin?

Over the past few decades, our understanding of the prevalence, associated personal and external factors, and adverse outcomes of bullying victimization has greatly improved. Bullying is a broad term that only recently received a standardized and widely accepted definition [1]. All forms of bullying involve three core elements: unwanted aggressive behavior, a power imbalance, and observed or anticipated repetition of the behavior. About one-fifth of adolescents report being bullied at some point over the past year [2,3]. Compared with adolescents who are not involved in bullying, victims are more likely to report tobacco and other drug use, poor academic performance, higher rates of psychological distress and suicidal ideation, and poor health [4].

However, comparatively less is known about the epidemiology and associated features of bullying perpetration. Although some cross-sectional [5] and longitudinal [6] studies have suggested that bullying perpetration may be associated with substance use, none have examined whether a bidirectional relationship exists between these two behaviors.

The report by Azevedo Da Silva and Martins in this issue of the Journal of Adolescent Health [7] addresses this void in the literature. Using data from the longitudinal, U.S.-based Population Assessment of Tobacco and Health (PATH) cohort study, which included more than 13,000 adolescents aged 12–17 years, the authors examined the bidirectional relationship between past-year bullying perpetration and cigarette, alcohol, and cannabis use. By leveraging three waves of annual surveys (2013–2014, 2014–2015, and 2015–2016), the authors were equipped to explore both cross-sectional associations and predictive models involving bullying perpetration and substance use.

Consistent with previous cross-sectional studies [5], Azevedo Da Silva and Martins [7] found that, at baseline, bullying perpetrators were more likely than their nonbullying peers to endorse using cigarettes, alcohol, and tobacco. The authors then classified respondents into three mutually exclusive categories: episodic bullies (i.e., endorsed bullying in only one study wave), frequent bullies (i.e., endorsed bullying in two or more study waves), and none (i.e., denied bullying in all three waves). They similarly classified respondents by their frequency of cigarette, alcohol, and cannabis use (e.g., “frequent” cannabis users endorsed using cannabis in two or more study waves). They found that both episodic and frequent bullies were more likely than never bullies to endorse cigarette, alcohol, and tobacco use at wave three; likewise, both episodic and frequent users of each of these three substances were more likely than nonusers to endorse bullying perpetration at wave 3. Moreover, the odds of the corresponding behavior were stronger for frequent bullies or substance users than for episodic bullies or substance users. These patterns of results persisted even after controlling for age, race/ethnicity, gender, education, and internalizing symptoms and in a series of sensitivity analyses that restricted the predictor variables to waves 1 and 2.

Azevedo Da Silva and Martins’ current report [7] builds on their recent work—also using the PATH cohort—which similarly demonstrated a bidirectional relationship between bullying perpetration and internalizing symptoms [8]. The current report contributes to our understanding of bullying perpetration in at least two ways: (1) Adolescent bullying perpetration and specific forms of substance use are risk factors for one another; and (2) the relationships between bullying perpetration and substance use may operate in a dose-dependent fashion.

From a policy perspective, results of this study [7] support the development and implementation of school-based interventions that simultaneously address both bullying perpetration and substance use. National programs such as StopBullying.gov [9] and D.A.R.E. [10] focus almost exclusively on bullying or substance use, but few large-scale programs comprehensively address both sets of behaviors. Ideally, effective interventions would identify early adolescents (e.g., middle school students) who are engaged in bullying or substance use and offer interventions to reduce individual, peer, familial, and community-based risks for these behaviors. Adolescent bullying perpetration and substance use share many of the same risk factors, including impulsivity and sensation seeking, antisocial personality traits, mental health problems, poor academic performance, poor school connectedness, low socioeconomic status, and community violence [11,12]. Therefore, novel interventions to reduce bullying and substance use may conceptualize both behaviors as two sides of the same coin; addressing the common risk factors for both behaviors using an empathic and strengths-based approach [13] may be more effective than attempting to address either on its own.
By establishing a bidirectional relationship between bullying perpetration and substance use, Azevedo Da Silva and Martins [7] invite subsequent studies that may build on their findings. For instance, to develop effective interventions, it will be important to understand what forms of bullying perpetration (i.e., physical, verbal, relational, and cyber) are most closely tied to specific types of substance use. This is especially pertinent in recent years as cyberbullying has gradually taken the place of traditional bullying among adolescents [3] and is associated with unique risk predictors [14]. Likewise, as Azevedo Da Silva and Martins [7] note, the PATH surveys did not include questions regarding bullying victimization; however, future studies should examine the longitudinal relationships among bully perpetrators, victims, and perpetrator-victims and substance use. Future studies may also explore mediators of the bidirectional association between bullying perpetration and substance use, including individual, familial, and community factors. In turn, these mediators may be effective targets for tailored interventions to prevent both types of problematic behaviors. Finally, modifying peer norms may be an effective technique to reduce harmful youth behavior [15]; subsequent studies could examine the effects of peer norm modification on both adolescent substance use and bullying perpetration.

Adolescents who engage in bullying perpetration and substance use are at high risk of adverse outcomes. The study by Azevedo Da Silva and Martins [7] should serve as a reminder that these behaviors are closely related and, furthermore, are risk factors for one another. Subsequent research should further elucidate the complex associations between these common behaviors with the goal of developing empirically supported interventions.

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References