Peer Victimization and Adolescent Adjustment: Does School Belonging Matter?

Recent research highlights the role of peer victimization in students adjustment across a variety of domains (e.g., academic, social), but less often identifies potential mediating variables. In the current study, we tested for direct effects from peer victimization to adolescents academic behavior and alcohol use, as well as indirect effects through school belonging. Adolescents from two large samples (middle school: N 2,808; high school: N 6,821) selfreported on peer victimization, school belonging, academic outcomes (GPA, school truancy), and alcohol use (lifetime, past 30 days). Twogroup structural equation models revealed (a) direct and indirect paths from peer victimization to academic functioning; (b) indirect, but not direct, effects through school belonging for lifetime

drinking; and (c) direct and indirect effects from peer victimization to current drinking. Findings implicate school belonging as a mediator between peer victimization and important outcomes in adolescence.

KEYWORDS adolescence, peer victimization, school belonging, academic performance, academic truancy, alcohol use

Throughout the school day, students are exposed to a variety of academic and social experiences. Victimization in school, particularly at the hands of peers, is an unfortunately common experience for many youth. Peer victimization is an overarching term that involves repeated negative interactions, either physical or verbal, between two or more individuals; bullying, a specific subset of victimization, is characterized by a notable power differential between two individuals in a dyad (Ladd, Kochenderfer, & Coleman, 1997). Estimates of peer victimization among school children are high, affecting a sizable portion of the schoolage population (Card & Hodges, 2008; Walton, 2005). According to recent reports, 25% to 33% of schoolage children in the United States report being bullied at school (National Center for Education Statistics and Bureau of Justice Statistics, 2010). Since students do not always report threats or acts of violence to school authorities, actual rates of victimization in schools are likely even higher than those documented (Isernhagen & Harris, 2003; Nekvasil & Cornell, 2012; Pergolizzi et al., 2009). Peer victimization is of particular concern because of its negative impact on students functioning. Beginning as early as kindergarten, peer victimization is associated with both internalizing and externalizing problems (Card & Hodges, 2008; Khatri, Kupersmidt, & Patterson, 2000).

Although common across the school years, peer victimization is thought to peak in adolescence (Card & Hodges, 2008). During this developmental period, two domains of functioning have received considerable attention from both researchers and policy makers: illicit substance use and academic functioning. Initiation and continued use of illicit substances, particularly alcohol, is very common in adolescence (Johnston, OMalley, Bachman, & Schulenberg, 2006), along with declines in school motivation and engagement (Corpus, McClinticGilbert, & Hayenga, 2009; Otis, Grouzet, & Pelletier, 2005). Given the profound impact of peer victimization on student outcomes within the educational context (e.g., Ladd et al., 1997), and the fact that a substantial portion of victimization takes place during the school day, it seems reasonable to hypothesize that students who are victimized will also exhibit less adaptive school adjustment. Indeed, studies suggest that victimized children exhibit poor academic functioning (Lee & Cornell, 2009). The effects of victimization, however, do not dissipate at the end of the school day. Rather, the deleterious effects of being victimized may influence

students outside of the school context (i.e., spillover effect; e.g., Schwartz, Gorman, Duong, & Nakamoto, 2008). One such activity that has received increasing attention in connection with peer victimization is initiation and continued use of illicit substances. A handful of studies exploring relations between peer victimization and alcohol use have usually found positive associations between the two, particularly for alcohol initiation among middle school samples (for a review, see Topper & Conrod, 2011). Recent reviews call for an increase in attention paid to the posited associations between schoolbased victimization and alcohol initiation, as too few studies have explicitly examined these relations.

Increasing numbers of studies implicate peer victimization in the prediction of key developmental outcomes, both within and outside of the school domain. However, several important research questions remain unaddressed. First, few empirical studies have proposed explanatory mechanisms for the relation between these constructs (i.e., peer victimization with academicrelated outcomes or alcohol use). Depressive symptoms (Luk, Wang, & SimonsMorton, 2010) and copingrelated drinking motives (Topper, CastellanosRyan, Mackie, & Conrod, 2011) have been identified as mediating variables in the victimizationalcoholuse association. However, researchers have yet to consider schoolrelated constructs that may mediate the relation between peer victimization and outcomes in adolescence. Additionally, researchers have not considered whether the same mediator is central to multiple outcomes related to peer victimization. In other words, could declines in school belonging be the explanatory factor in the association of peer victimization with poor school performance as well as the propensity to use alcohol? If so, such information could potentially have important implications for interventions developed to mitigate the deleterious effects of peer victimization. With these concerns in mind, one goal of the current study was to identify such a mediator. As victimization often takes place within the school context, we considered a schoolbased variable with important implications for adolescents academic and nonacademic adjustment. We were particularly interested in investigating a schoolbased variable (i.e., perceptions of school belonging) because it may be more amenable to intervention efforts.

Second, most studies examining the impact of peer victimization have been limited to a single age group, particularly middle school. While victimization is pervasive during middle school, it is also relatively normative as adolescents transition into high school (Card & Hodges, 2008). Moreover, the outcomes examined in the current study (i.e., alcohol use and academic adjustment) are central concerns of school administrators for both age groups. Thus, we expanded upon prior work by examining the interrelations among peer victimization, academic functioning, and alcohol use in samples of both middle and high school students. Understanding the relation of victimization to outcomes across adolescence could have useful implications for research and educational practice.

School Belonging as a Mediator

A notable limitation of the literature on peer victimization and outcomes, particularly with respect to alcohol use, is that few studies have empirically tested potential mechanisms underlying such associations (for exceptions, see Luk et al., 2010; Topper et al., 2011). In the present study, we examined students feelings of belonging to the school community as a potential mediator. We focused on school belonging as it: (a) is based in the educational setting, where peer victimization also occurs; (b) encompasses relationships with peers, an important buffer against the negative outcomes of peer victimization (e.g., Asher, Brachial, & McDonald, in press; Ladd et al., 1997); (c) has been identified in past studies as a powerful predictor of outcomes such as academic achievement and substance use (e.g., Ladd et al., 1997); and (d) has been the successful target of past intervention efforts (e.g., Anderman, 2002).

School belonging is a multifaceted construct and warrants a brief consideration of its operationalization. School belonging (Anderman, 2002; Faircloth & Hamm, 2005; Goodenow, 1993; Goodenow & Grady, 1993; Osterman, 2000; Roeser, Midgley, & Urdan, 1996) has been labeled differently by various researchers, and is closely related to constructs such as emotional engagement (Finn, 1993; Fredricks, Blumenfeld, & Paris, 2004), perceptions of school climate (Waters, Cross, & Shaw, 2010), school connectedness (Bernat & Resnick, 2009; Resnick et al., 1997), school bonding (Jenkins, 1997), and sense of relatedness (Connell & Wellborn, 1991; Deci & Ryan, 1985; Furrer & Skinner, 2003). For the purposes of this study, we borrow from Libbeys (2004) definition of belonging as encompassing positive relationships with both peers and adults in the school context, as well as perceived feelings of safety and belonging at school. Accordingly, we refer to students perceived connection to school as school belonging. However, we acknowledge that the same or similar construct may be captured by different terminology, particularly those previously mentioned.

The broad concept of school belonging has demonstrated important associations with outcomes of interest to the present study (Libbey, 2004; McNeely & Falci, 2004; Stearns & Glennie, 2010). As far back as Dewey (1958), school belonging has been posited as a critical determinant of students academic success and engagement (Fredricks et al., 2004; Osterman, 2000; Roeser et al., 1996). Indeed, it is fundamental to sustaining important academic outcomes such as intrinsic motivation, which is strongly related to academic achievement (Deci & Ryan, 1985). Consequently, low perceptions of school belonging could trigger negative academic outcomes, including school truancy or dropout. Along these lines, lower perceptions of belonging and safety at school may increase risk for disengagement, evidenced by decreased effort and subsequent worsening of academic performance or increases in school truancy (Goodenow & Grady, 1993).

Lower perceptions of school belonging have also been associated with alcohol use (Brookmeyer, Fanti, & Henrich, 2006; Rice, Kang, Weaver, & Howell, 2008). Resnick and colleagues (1997) seminal work with sevenththrough twelfthgrade students provided compelling evidence for the protective role of school belonging (referred to in the study as school connectedness) against alcohol use. Feelings of school belonging were a more powerful predictor for lower rates of alcohol use than nonacademic contextual variables, including family support. However, it is important to note that the direction of causality has not been established between these two variables. For example, social control theory may suggest that delinquent behavior, such as alcohol use, would give rise to poor school bonding (Hirschi, 1969; Wiatrowski, Griswold, & Roberts, 1981). Thus, while we considered school belonging as a mediator in the current study, it is also quite possible that the relation between alcohol use and school belonging is bidirectional.

Finally, studies suggest an association between school belonging and peer victimization. Past research has linked perceptions of the school climate to feelings of school safety, such that students who endorse low levels of school belonging are more likely to feel unsafe at school (Derosier & Newcity, 2005). In addition, students who feel alienated from the school community may be less likely to report, or attempt to intervene in, instances of school victimization, perpetuating a culture of victimization in school (Brinkley & Saarnio, 2006).

Based on past research, school belonging is a critical component of adolescent adjustment with potential implications for peer victimization and academic adjustment. As such, school belonging might be a mediating mechanism connecting schoolbased peer victimization and academic outcomes (performance and truancy) and nonacademic outcomes (alcohol use). The current study adds to the wellestablished literature on school belonging by integrating work on school belonging and peer victimization with that focused on school belonging and alcohol use or academicrelated outcomes.

A Developmental Perspective

While substance use, academic achievement, and peer victimization remain substantial concerns across adolescence, there is a marked difference between the experiences of early and late adolescents (Graber, BrooksGunn, & Petersen, 1996).