You've got a friend(ly school): Can school prosocial norms and friends similarly protect victims from distress?

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Abstract

Testing the potential protective effects of school-level prosocial norms and having friends on peer victimization-related distress, this study examined whether one protective factor is particularly important in the absence of the other. An ethnically diverse sample ($n=5,991$) from 26 middle schools reported on peer prosocial behavior, social anxiety, loneliness, and perceived school safety; peer nominations assessed victimization and friends. Multilevel analyses revealed that 6th grade friendless victims felt significantly less anxious, lonely, and unsafe a year later in schools characterized by stronger peer prosocial norms (e.g., helping others). Additionally, victims in less prosocial schools experienced less socially anxiety if they had at least one friend. The findings suggest that attending a school characterized by prosocial peer norms can compensate for high social risk (victimized and friendless) following the transition to middle school, and having friends is important for bullied youth in less prosocial school contexts. These results highlight the importance of simultaneously studying relational and school-level protective factors; implications for anti-bullying interventions are discussed.

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"Nobody cares about me." This painful sentiment is frequently expressed by youth bullied by peers, and it may help explain when experiences of peer victimization are particularly hurtful. In early adolescence, when desires to fit in and be accepted by peers are heightened (Blakemore & Mills, 2014), being the target of peer ridicule, intimidation, or exclusion takes a significant social and emotional toll (Paul & Cillessen, 2003). Victims of bullying are also less likely to have friends than their well-adjusted peers (Fox & Boulton, 2006), suggesting that those most in need of social resources are least likely to have them. Of further concern, social difficulties may be especially distressing following the transition to middle school, a time when peer-related stressors increase, and youth's (negative) social reputations among a new peer group become solidified. Insofar as this challenging transition coincides with heightened sensitivity to social cues, interpersonal stressors frequently amplify distress among middle schoolers (Crone & Dahl, 2012). Thus, an important question is what factors might promote the sense that "someone cares" for those victimized following the middle school transition.

Social ecological frameworks emphasize that youth are embedded within multiple intersecting contexts that interactively contribute to their adjustment (Bronfenbrenner, 1977; Bronfenbrenner & Morris, 1998). During adolescence, both close relationships (e.g., friendships) and the broader peer group at school (e.g., social norms) serve as important development contexts for victimized students (Hong & Espelage, 2012). However, despite a growth in research investigating how friendships and peer norms at school independently influence the adjustment of the bullied, studies rarely consider how both relational and school factors dynamically interact when adolescents are victimized. The current study proposes that a) the

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emotional impact of being bullied and friendless may vary depending on peer norms at school, and b) being bullied in an unsupportive school context may hurt less if victims have at least one friend. By simultaneously considering close relationships (friends) and the broader peer context at school (prosocial norms), the study's main goal is to investigate whether one protective factor is particularly important in the absence of the other among adolescents who are bullied following the middle school transition.

Friendships and Victimization in Adolescence

Although victims of bullying are at increased risk for social-emotional maladjustment, stress-buffering theories of social support posit that such maladaptive pathways can be weakened depending on youth's close relationships (Cohen & Wills, 1985). Supporting this notion, past research shows that having friends promotes well-being among bullied youth, at least in elementary school. For example, having just one friend buffers victims from emotional problems in 4th and 5th grade (Hodges, Boivin, Vitaro, & Bukowski, 1999), and kindergarteners who respond to bullying by "having a friend help" experience decreased victimization (Kochenderfer & Ladd, 1997). These findings suggest that friends can offer victims support in the face of social stress, which helps alleviate children's feelings of social isolation or vulnerability. Far less attention has been given to the potential protective effects of a single friendship in middle school, a time when the opinions and norms of the broader peer group, in addition to close friends, become increasingly relevant to the self and school perceptions of adolescents (Crone & Dahl, 2012).

While having friends appears important for the bullied, at least during childhood, evidence also suggests that many victimized youth do not have friends (e.g., Bowker et al., 2006; Fox & Boulton, 2006), and friendless victims experience heightened risk for emotional problems

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(Hodges et al., 1999). An important question that follows is whether adolescents who experience joint social vulnerabilities (i.e., being victimized and lacking friends) can nevertheless be protected from maladjustment in schools characterized by positive peer norms. In line with the idea that victims' social-emotional adjustment is shaped by dynamic interactions between their close interpersonal relationships and broader social context (Ettetal, Kochenderfer-Ladd, & Ladd, 2015), we propose that it is critical to consider the role of social norms that support caring and more considerate behavior among peers in middle school. Whereas a supportive peer context at school may be able to offset the distress of youth who are victimized and friendless, we presume that friendships are particularly critical for bullied youth in schools with unsupportive peer norms.

Victimization and Social Norms at School in Adolescence

Schools where bullying behaviors are tolerated or even encouraged by peers increase risk for victimization and maladjustment (Salmivalli, Voeten, & Poskiparta, 2011), whereas schools characterized by more positive peer norms are protective (Espelage & Swearer, 2003). One typical way to capture social norms is to assess the school-level average of students' prosocial behavior (e.g., helping one another, standing up for the bullied; Henry, Cartland, Ruchross, & Monahan, 2004). Examining such descriptive norms is particularly relevant during early adolescence and the transition to middle school, insofar as youth increasingly seek to model the behaviors of their peers (Cairns, Xie, & Leung, 1998).

Although few studies directly examine the impact of supportive peer norms on the psychosocial adjustment of bullied adolescents in middle school, existing research suggests that prosocial norms can improve students' perceptions of their schools and reduce their risk for victimization. Some of the most compelling evidence stems from school-wide interventions. For

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example, relying on popular (i.e., influential) peers to model prosocial behaviors (e.g., mediate conflicts, support victims), Paluck, Shepherd and Aronow (2016) improved the school social climate by significantly decreasing peer conflict in high schools. Also, interventions designed to promote positive bystander behavior (e.g., defending and supporting victims) and increase social-emotional learning (see Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011 for meta-analysis) reduce rates of bullying incidents, alleviate students' internalizing symptoms, and increase prosocial behavior (Durlak et al., 2011; Kärnä et al., 2011; Williford et al., 2012). Moreover, recent findings demonstrate that school-wide anti-bullying programs are particularly beneficial for preadolescents who are frequently victimized prior to the intervention, improving their mental health and school perceptions (Juvonen, Schacter, Sainio, & Salmivalli, 2016).

Although interventions suggest that positive peer norms promote social-emotional well-being among most youth, it is not clear whether stronger prosocial norms can help those who are “doubly socially disadvantaged” (i.e., friendless victims). Similarly, we do not know whether having a friend may be especially important for victims in middle schools where most peers are not perceived as supportive. While ecological perspectives emphasize the importance of considering overlap across multiple contexts, including both friendships and school characteristics (Bronfenbrenner & Morris, 1998; McCormick & Cappella, 2015), as far as we know, such analyses regarding victimized youth are lacking.

The Present Study

Testing the potential protective effects of school-level prosocial norms and having friends on peer victimization-related distress, the main goal of current study is to examine whether one protective factor is particularly important in the absence of the other following the transition to middle school. Our approach acknowledges that being bullied and friendless may be less

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strongly associated with distress in middle schools with strong prosocial norms, just as being bullied in schools with unsupportive peer norms may hurt less if a victim has at least one friend. This offers an important theoretical extension of past work, insofar as we investigate complex (three-way) interactions between relational and school contexts following the transition to middle school. The current study thus had two central and related research questions: (1) Are victimized youth who lack friends less likely to experience distress in schools with stronger, as opposed to weaker, prosocial norms? (2) Are victimized youth in schools with weaker prosocial norms less likely to experience distress when they have at least one friend, as opposed to no friends? In examining these questions, we presume that prosocial norms will serve a particularly important protective function for bullied youth lacking other support resources (i.e., the friendless), whereas having a friend will matter most for victims in less prosocial school contexts.

This study contributes to and extends prior literature in several important ways. By simultaneously examining the moderating effects of friendship and prosocial peer norms, we consider the risk and protective functions of close relationships and school social norms occurring within an interactive framework (Masten, 1999). Additionally, we study these processes following an important developmental transition. Relying on three waves of data, our moderation hypotheses are tested across the first two years of middle school. We focus on adolescents' experiences following this school transition for several reasons. When students move from self-contained elementary school classrooms to a larger and less structured middle school, young adolescents are very vulnerable to social stressors (Chung, Elias, & Schneider, 1998). Additionally, as old friendship networks are interrupted because of the transition, both antisocial norms (Galván, Spatzier & Juvonen, 2011) and bullying increase during 6th grade

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(Pellegrini & Bartini, 2000). We presume that under such conditions, peer victimization experiences and lack of social support are particularly distressing (Nansel, Haynie, & Simonsmorton, 2003). In addition to focusing on important social distress indicators of social anxiety and loneliness as outcomes, we consider students' sense of safety at school given that negative social experiences are likely to shape students' school perceptions. The hypotheses are tested by controlling for relevant individual- and school-level factors (e.g., SES, diversity), including students' personal perceptions of prosocial behavior (to more rigorously examine the moderating function of *school*-level prosocial norms) using multilevel modeling. In addition to relying on self-reports of students' distress outcomes, the study incorporates peer-reports of victimization and friendship. Peer nominations methods offer an advantage over self-report by a) reducing potential bias in self-perceptions and shared method variance with self-reported outcomes and b) more directly capturing youth's social experiences in their school contexts (Cillessen & Marks, 2017). Finally, we rely on a large, ethnically diverse sample to increase generalizability across demographic groups.

By examining the compensatory effects of prosocial peer norms and friendship for victims, we seek to identify the specific conditions under which victimized adolescents fare better. Our findings, in turn, can shed light on interventions designed for youth experiencing multiple social vulnerabilities. For example, evidence for the protective effects of prosocial peer norms would highlight the utility of school-wide approaches that modify the peer culture related to bullying (e.g., Kärnä et al., 2011) and incorporate social-emotional learning programs to increase support resources for vulnerable youth (e.g., Hagelskamp, Brackett, Rivers, & Salovey, 2013). Additionally, if friendships emerge as a particularly important protective factor for bullied youth in less prosocial settings, it may be important for schools to also incorporate more targeted

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elements that facilitate specific supportive relationships for victims of peer aggression (Boulton, Trueman, Chau, Whitehand, & Amatya, 1999).

Method

Participants

The sample consisted of 5,991 adolescents (52% female) who were part of a large, longitudinal study of adolescent development across the middle school years. Students were recruited from 26 urban public middle schools (all 6th-8th grade) in California that were carefully selected to represent different ethnic compositions (e.g., diverse; majority one group). All school districts provided permission to conduct the study. During 6th grade recruitment all students and families received informed consent and informational letters. Participation rates ranged from 74% to 94% ($M=84\%$) across the schools. Only students who turned in signed parental consent and provided written assent participated. The number of participants in each school ranged from 78 to 445 ($M=281.57$, $SD=111.68$). All students made the transition to middle school in 6th grade.

Based on self-reported ethnicity in 6th grade, the sample was 32% Latino/a, 20% Caucasian/White, 13% East/Southeast Asian, 14% Multiethnic/Biracial, 12% African American/Black, 3% Filipino/Pacific Islander, 2% Middle Eastern, 2% South Asian, and 2% other. Participants' families ranged in socioeconomic status as indicated by parental level of education (18% less than high school, 13% high school education or GED, 29% some college, 22% college degree, 19% graduate degree).

Procedure

We rely on data collected across three time points: 6th grade Fall (baseline covariates), 6th grade Spring (main predictors), and 7th grade Spring (outcomes). Students were informed

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about confidentiality and reminded that participation was voluntary prior to participation and received cash or gift certificate compensation (\$5 in 6th grade Fall and Spring; \$10 in 7th grade Spring) after participation. Researchers read most items aloud as students followed along and completed written questionnaires within a classroom setting.

Measures

Psychosocial adjustment outcomes. Three indicators assessed psychosocial adjustment during 6th grade (baseline covariates) and 7th grade (outcomes).

Social anxiety. Social anxiety was measured using 6 items from two subscales of the Social Anxiety Scale for Adolescents (SAS-A; La Greca & Lopez, 1998): Fear of Negative Evaluation (e.g., “I worry about what others say about me”), and Social Avoidance and Distress (e.g., “It’s hard for me to ask others to do things with me”). Responses were rated on a 5-point scale (1=*not at all* to 5=*all the time*) and averaged into a composite with higher scores indicating higher anxiety ($\alpha_{6th\ grade}=.79$; $\alpha_{7th\ grade}=.80$).

Loneliness. A 5-item adapted scale (Asher & Wheeler, 1985) assessed loneliness (e.g., “I have nobody to talk to”). Participants were asked how often they feel this way at school, using a 5-point response scale (1=*always true* to 5=*not true at all*). Items were reverse coded and averaged with higher scores indicating greater loneliness ($\alpha_{6th\ grade}=.91$; $\alpha_{7th\ grade}=.91$). Because loneliness was not measured in 6th grade Fall, 6th grade Spring scores were used as a baseline control.

Perceived school safety. Students’ perceptions of school safety were measured using a subscale from the Effective School Battery (Gottfredson, 1984). The subscale included six items (e.g., “Are you afraid that someone will hurt or bother you at school?”). Responses were rated on

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a 5-point frequency scale (1=*always* to 5=*never*) ($\alpha_{6^{\text{th}} \text{ grade}}=.79$; $\alpha_{7^{\text{th}} \text{ grade}}=.80$). Items were reverse coded and averaged with higher scores indicating feeling safer at school.

Individual-level predictors.

Peer victimization. Peer nominations assessed victim reputation. In 6th grade Spring, students listed grademates in response to the question, “Which 6th grade students from your list get picked on by other kids (get hit or pushed around, called bad names, talked about behind their backs)?”. Using a school roster, students could write down unlimited names, excluding themselves. The number of nominations received for each student was computed and z-score standardized within school. Within-school standardization of peer nominations accounts for varying school sizes (i.e., different number of potential nominators) and captures students’ victimization (reputation) relative to peers at their school. Z-scores ranged from -.64 to 12.51.

Friends. Presence versus absence of friends was determined based on peer nominations. In 6th grade Spring, students were asked to list the names of their good friends in 6th grade at school (unlimited nominations). The number of friendship nominations *received* from peers was calculated for each student. This allowed us to avoid some of the methodological limitations associated with using reciprocal friendships (underestimation of friends; Bagwell & Schmidt, 2011) and given nominations (overestimation of friends; Furman, 1996). Consistent with past studies comparing the adjustment of victimized youth with or without friends (e.g., Hodges et al., 1999), friend nominations received was dichotomized to distinguish between students with or without friends (1=at least one friendship nomination received, 0=no friendship nominations received). Twelve percent of the sample (n=729) did not receive any friendship nominations and hence were considered friendless.

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Perceptions of peer prosocial behavior. Students reported the prosocial behavior of their peers, rather than their own prosocial behavior, to avoid issues of self-presentation and social desirability biases. Participants estimated how many students in their school engaged in prosocial behaviors (e.g., “help others even if they do not know them well”; “help resolve arguments between other kids”), responding to 5 questions on a 5-point scale (1=*almost all the students*, 5=*hardly any*). Items were reverse coded and averaged into a composite such that higher scores indicate perceptions of prosocial behavior as more characteristic of peers at school ($\alpha=.80$). This individual-level variable was used as a covariate in analyses in order to capture school-level norm effects over and above students’ personal perceptions of their peers.

Demographic covariates. Students self-reported sex and ethnicity in the fall of 6th grade. Parent education was used as a proxy for student socioeconomic status (SES). The parent or guardian who completed informed consent indicated his or her highest level of education on a 6-point scale ranging from 1=“elementary/junior high school,” 2=“some high school,” 3=“high school diploma or GED,” 4=“some college,” 5=“4-year college degree,” and 6=“graduate degree.”

School-level predictors.

School-level prosocial norms. To capture our central school-level moderator, individual scores of perceived peer prosocial behaviors were aggregated within each school ($M=2.78$, $SD=.13$). This descriptive norm index (Henry et al., 2004) captures the average level of prosocial behavior perceived by students within a school, with higher values indicating more prosocial peer norms.

Ethnic diversity. Given that ethnic diversity is associated with the outcomes in this study (Juvonen, Nishina, & Graham, 2006; Juvonen, Kogachi, & Graham, 2017), it was included as a

covariate. Data from the California Department of Education were used to compute Simpson's index (1949).

$$D_C = 1 - \sum_{i=1}^g p_i^2$$

D_C (diversity) is calculated by summing the squared proportion of students in the same grade at school belonging to a given ethnic group (p) and subtracting this squared proportion from one. Simpson's index indicates the probability of any two students chosen at random in a school being from different ethnic groups, with values ranging from 0 to 1 (higher representing more diversity). Diversity ranged from .49 to .76 ($M=.64$, $SD=.08$).

Missing Data

There were missing data on several analysis variables, partially due to the longitudinal study's planned missing design. Planned missing designs maximize data collection efficiency among large samples and reduce burden on participants (Graham, Taylor, Olchowski, & Cumsille, 2006). In the 6th and 7th grade Spring, participants were randomly chosen to complete one of three questionnaires, each excluding a different set of measures. In the current analyses, self-reported loneliness was part of the planned missing design, such that any missing data on loneliness were missing completely at random (MCAR).

There were no missing data for the three central predictors: peer-reported victimization, peer-reported friendship, and school-level prosocial norms. There were very low rates of unplanned missing data for the other 6th grade main predictors and covariates (<10%), and moderately low rates for the 7th grade outcomes (<20%). Although there is no way to empirically confirm that unintentional missing data on these variables was consistent with a missing at random (MAR) mechanism, there was not specific evidence suggesting that missingness on these

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variables was systematically related to the constructs themselves. Rather, across the two years of data collection students occasionally transferred schools, were absent, or skipped measures given time constraints. As such, all missing data were presumed to be missing at random and handled using full information maximum likelihood (FIML) estimation in Mplus version 7.31 (Muthén & Muthén, 1998-2016). The robust standard error option (MLR) corrected for non-normality. Rather than removing participants with missing data from analyses (i.e., listwise deletion) and biasing the results, FIML uses observed responses in the data to produce accurate estimates of the entire sample, even with incomplete data (Schafer & Graham, 2002).

Analysis Plan

For descriptive purposes, bivariate correlations were calculated among the main individual-level variables. To obtain within-school associations between variables, variables were centered within school (i.e., group-mean centered) prior to calculating correlations. To address the primary hypotheses, data were analyzed using multilevel modeling to account for non-independence of observations (i.e., students nested in schools). Continuous predictors were grand-mean centered, with the exception of victimization, which was standardized within school. Because friendship was a dichotomous variable, the regression coefficient represents the difference between students with versus without friends.

For each of the dependent variables, we first tested an unconditional means model to compute the proportion of outcome variability existing between schools. In final models, each psychosocial adjustment outcome (PA_{ij}) was examined as a function of student victimization (VIC_{ij}), presence or absence of a friend (FRD_{ij}), school prosocial norms (SP_j), and their two- and three-way interactions. The analyses also controlled for student sex (1=girl, 0=boy), ethnicity (reference group=Latino, as the largest ethnic group), baseline adjustment, individual perceptions

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of prosocial peer behavior, SES, and school diversity (COV_k). All models included a random intercept, allowing the mean level of the outcome to vary randomly across schools. An example of a final model including all two- and three-way interactions of interest is presented below.

$$PA_{ij} = \gamma_0 + \gamma_1 (VIC_{ij}) + \gamma_2 (FRD_{ij}) + \gamma_3 (VIC_{ij})(FRD_{ij}) + \gamma_4 (SP_j) + \gamma_5 (VIC_{ij})(SP_j) + \gamma_6 (FRD_{ij})(SP_j) + \gamma_7 (VIC_{ij})(FRD_{ij})(SP_j) + \sum_{k=1}^K \gamma_{k+7} (COV_k) + u_{0j} + \varepsilon_{ij}$$

Results

Descriptive statistics for the study variables are presented in Table 1; corresponding correlations among individual-level variables (not controlling for any other variables) are in Table 2. Students with higher peer-reported victimization were more likely to be friendless at the end of 6th grade and feel more anxious, lonely, and unsafe in 6th and 7th grade. Similarly, students who were friendless in 6th grade felt more anxious, lonely, and unsafe in 6th and 7th grade. That is, consistent with past research, victimization and friendlessness were each associated with maladjustment. Perceptions of more prosocial peer behavior at school (individual-level) were associated with lower victimization and better adjustment in 6th and 7th grade, but unrelated to presence versus absence of friends. There was moderate stability in the psychosocial adjustment outcomes from 6th to 7th grade.

Recognizing that students may be more likely to be victimized and friendless depending on school context, supplemental analyses considered school-level prosocial norms as a predictor of a) victimization and b) friendship (presence versus absence), while controlling for the other covariates included in our main models. That is, using multilevel modeling, school-level prosocial norms were modeled as a school-level predictor of victimization (raw scores, given that the standardized variable removes all between-school variability) and friendship (using multilevel logistic regression, given that friendship was dichotomous). School-level prosocial

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norms was not a significant predictor of victimization or friendship, suggesting that these are independent constructs in the current study. That is, during 6th grade students were not less victimized or more likely to have someone consider them a friend in schools with stronger prosocial norms.

Multilevel Models

Intraclass correlations were .025 for social anxiety, .017 for loneliness, and .038 for safety, suggesting that variability in psychosocial adjustment was mainly attributable to individual, rather than school-level, differences. There was significant between-school variability in student-level prosocial norms ($p=.006$) with an ICC of .03, suggesting low but nevertheless meaningful variability in prosocial norms across the 26 schools. Final multilevel models are presented in Table 3. Girls reported higher levels of 7th grade anxiety and loneliness compared to boys. Asian and White students experienced more social anxiety and loneliness and less perceived school safety compared to Latino students, who experienced more social anxiety than African American students. Students who perceived higher prevalence of peers engaging in prosocial conduct at school reported less social anxiety, less loneliness, and greater sense of safety at school. Sixth grade adjustment indicators were significant predictors of 7th grade adjustment. At the school level, greater ethnic diversity was related to greater perceived safety.

As hypothesized there were significant three-way interactions between victimization, friendship, and school-level prosocial norms for all outcomes. Three-way interactions were probed using the Model Constraint option in Mplus. We first examined the victimization X school prosocial norms interaction for students with versus without friends. That is, we test whether prosocial norms are especially critical for victimized youth who lack (as opposed to have) at least one friend. For students *without* friends, there was a significant interaction between

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victimization and school prosocial norms for social anxiety ($b=-.305, p=.014$), loneliness ($b=-.292, p=.031$), and perceived safety ($b=.271, p=.050$). Probing these significant two-way interactions for students without friends at high (+1 SD) versus low (-1 SD) levels of school prosocial norms, tests of simple slopes revealed that in more prosocial schools (compared to less prosocial schools), associations between victimization and social anxiety (Figure 1), loneliness (Figure 2), and perceived school safety (Figure 3) were significantly weaker for *friendless* youth. As seen in by the black lines in Figures 1-3, whereas friendless students in less prosocial schools (solid black line) showed a significant association between 6th grade victimization and 7th grade social anxiety ($b=.095, p<.001$), loneliness ($b=.106, p=.002$), and perceived school safety ($b=-.072, p=.040$), there were no significant associations between victimization and the three outcomes (social anxiety: $b=.015, p=.467$; loneliness: $b=.039, p=.066$; safety: $b=-.002, p=.914$) for students without friends in more prosocial schools (dashed black line). For students *with* friends, the association between victimization and the three outcomes did not significantly differ depending on school-level prosocial norms (i.e., nonsignificant victimization X school prosocial norms interactions). Thus, school-level prosocial norms were a significant moderator of victimization adjustment-links for students without friends, but not for students with friends.

To test whether friendship protects victimized youth from adjustment problems especially in schools with less prosocial norms, we then decomposed the same three-way interaction by switching the focal moderator. Whereas in the above analyses we considered prosocial norms as a moderator of victimization-adjustment links separately among students with versus without friends (i.e., splitting by friends variable), we now examine friends as the moderator of victimization-adjustment links separately among students in more versus less prosocial schools (+1/-1 SD from mean; i.e., splitting by prosocial norms variable). For social anxiety, there was a

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significant 2-way interaction between victimization and friends ($b=-.087, p=.008$) in *less* prosocial schools; peer victimization was related to subsequent social anxiety for those without friends ($b=.095, p<.001$; solid black line) but not for those who had at least one friend ($b=.007, p=.692$; solid grey line). In more prosocial schools, there was no interaction between victimization and friendship ($b=.026, p=.434$) predicting anxiety. For loneliness and safety outcomes, there were no significant victimization X friendship interactions across school type; regardless of prosocial norms, victims with and without friends experienced similar levels of loneliness and perceived school safety. Standardized mean difference effect sizes across the interactions indicated small effects (.03 to .24; see Appendix A).

In summary, we used two ways of decomposing significant 3-way interactions to test our hypotheses. The first set of (simple slopes) analyses demonstrated that victimized youth *without friends* felt less distressed in schools with more prosocial norms. The second set of analyses demonstrated that victimized youth in schools with less prosocial norms felt less socially anxious (but not less lonely or safer) if they had at least one friend.

Discussion

Despite growing efforts to decrease peer victimization in schools, approximately one in every four American middle school students are nevertheless frequently bullied (US Department of Justice, 2013). Many bullied youth lack friends (Fox & Boulton, 2006) or feel unsupported by peers at school, and absence of such protective factors independently heighten their distress (Espelage & Swearer, 2003; Nickerson, Singleton, Schnurr, & Collen, 2014). This study contributes to past literature by simultaneously examining the potential protective effects of close relationships (i.e., friends) and school-level prosocial norms following adolescents' transition to middle school. By considering how both peer norms at school and close relationships can

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compensate for one another following a developmentally challenging school transition, we incorporate an ecological framework to provide a more nuanced understanding of the social conditions under which victimized adolescents fare better (or worse).

The findings suggest some degree of functional similarity between having friends and being in a school with prosocial peers. Consistent with past research, the correlational descriptive results indicated that victimization and friendlessness place youth at risk for negative adjustment outcomes; both were related to greater distress concurrently and one year later. However, we found that in schools where students help resolve arguments between other students, stand up for the bullied, and are kind to those they do not know well, victimized youth who were not considered a friend by any of their grademates nevertheless felt less anxious, less lonely, and safer. Additionally, the findings from the model examining social anxiety suggest that in schools with lower prosocial norms, having someone consider you as a friend is especially critical for victimized youth. Together these results provide some evidence for compensatory effects, wherein victimized students who lack support in one domain (e.g., less prosocial peers at school) can especially benefit from other social provisions (e.g., having a friend).

While a test of underlying mechanisms of these moderation effects was beyond the scope of the study, we presume that greater prosocial behavior among peers at school, like having friends, may offer victims support in the face of mistreatment, thus interrupting the stability of victimization and related distress (Hodges et al., 1999; Kochenderfer & Ladd, 1997). Attending schools with more prosocial peer norms could offer opportunities for friendless victims to feel like “someone cares”, despite lacking support in their more proximal peer relationships. In contrast, for students who are picked on and do not have friends, attending school with inconsiderate or unkind peers may further reinforce their sense of loneliness and distress. An

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important question raised by the findings is *why* students in certain schools offer support to vulnerable peers, given that siding with victims may increase their risk for being bullied. As mentioned in the introduction, interventions designed to modify school social norms that maintain (and encourage) bullying change the way peers respond to defending behaviors of their classmates. Thus, when supportive behavior towards victims becomes associated with high social status, prosocial acts may no longer present the same level of social “risk” (Pöyhönen & Salmivalli, 2008). Social network analyses would provide further insights about possible mechanisms that help explain the effects of prosocial norms (e.g., Sainio, Veenstra, Huising, & Salmivalli, 2010), particularly among the most socially vulnerable youth.

The current findings show that victimized youth were less likely to experience distress in prosocial schools, specifically when no one considered them a friend. Similarly, in schools with less (but not more) supportive peer norms, peer relationships within the proximal social context (i.e., friends) were especially important for decreasing the likelihood of youth feeling social anxious. That is, we did not find evidence that the “rich get richer”, wherein victims with friends gain additional benefits from being in a more prosocial school. It is possible that students who already have friends are less likely to reap the benefits of a prosocial peer context because having one source of support is adequate. Another possibility is that victimization is less severe and thus less distressing in prosocial school contexts (van Noorden, Bukowski, Haselager, Lansu, & Cillessen, 2016), which we do not capture here given our use of peer consensus data. Moreover, although we did not find significant concurrent associations between school prosocial norms and students’ friendships, it is nevertheless possible that prosocial peer contexts offer more opportunities for students to make friends, and thus feel more socially adjusted.

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Our results capture a pattern wherein the socially “poor get poorer”: the experience of being victimized was most detrimental when adolescents lacked both friends and a school context characterized by prosocial peer norms. These findings are consistent with past studies demonstrating the importance of friendship and positive school environments among youth already experiencing other risk factors. For example, in one study it was found that friendships were especially important for youth exposed to high levels of family adversity, insofar as these positive peer relationships can help “re-route” the adjustment trajectories of youth exposed to social risks (Criss, Pettit, Bates, Dodge, & Lapp, 2002). Similarly, findings from studies on school climate show that youth who experienced multiple psychological vulnerabilities (e.g., self-criticism; lack of efficacy) and perceived a more negative school environment showed the most detrimental outcomes (Kuperminc et al., 2001). The current findings highlight a similar pattern, wherein students experienced the greatest risk for heightened distress and adjustment problems when they had a victim reputation, did not have any friends, and attended a school with less prosocial peer norms.

Strengths and Limitations

Strengths of the current study include the short-term longitudinal design allowing us to control for baseline adjustment problems and an ethnically diverse sample. Moreover, by testing three-way interactions between victimization, friendship, and school-level prosocial norms, we identified how certain relational and school-level factors interact. Although some past studies have considered peer prosocial norms as they relate to peer victimization, this research has typically focused solely on bystander behavior (e.g., defending or reinforcing) as a predictor of students’ *risk* for victimization (Kärnä, Voeten, Poskiparta, & Salmivalli, 2010). Expanding research on bystanders, here we demonstrate how friendless youth experiencing victimization are

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less likely to feel socially and emotionally vulnerable in schools with stronger prosocial peer norms. By relying on a large, diverse public school sample, the current study also provides findings that should be generalizable across a wide range of groups. Past research has found that students in more ethnically diverse schools feel less socially vulnerable (Juvonen et al., 2006; Juvonen et al., 2017), and the present study similarly demonstrated that students in more diverse schools also felt very safe at school. One possibility is that the representation of students from multiple ethnic groups at school may promote increased inclusion, including more positive bystander behavior and peer support for victims. It will be important for future research to consider how school ethnic composition may directly or indirectly influence positive peer behavior at school to improve the adjustment outcomes of victimized and friendless adolescents.

There were also several limitations of the current study. Given the focus on understanding how prosocial peer contexts contribute to the adjustment of victimized youth without friends, we only considered the presence versus absence of friends, raising questions about other friendship features that may be important. For example, having friends may only be protective for victims insofar as these relationships are characterized by trust and support. Thus, it will be important for future studies to also take into account the quality and characteristics of adolescents' friendships, particularly those experiencing social difficulties. Other peer characteristics are also important to consider when understanding school-level norms, given that some students may be more influential than others in shaping the peer culture. That is, just as norms affect the well-being of individual students when victimized, individual students can shape the school's prosocial norms. Studies that incorporate social network approaches to understand *how* social norms get shaped across schools will provide further insight into these questions (e.g., McCormick & Cappella, 2015). Another question is who helps (or is in the

position to help) victims (see Van Rijsewijk, Dijkstra, Pattiselanno, Steglich, & Veenstra, 2016). Understanding who helps whom will offer further insight into the prosocial relations within different schools. Finally, it would be important to replicate our findings by relying on reciprocated friendships. We chose to examine whether anyone at school considered the victim a friend; in the current dataset, relying on reciprocated friendships may have underestimated friend effects due to not all students participating in the study (i.e., being in the position to reciprocate a nomination).

Also, it should be noted that effect sizes in the current analyses were small. However, small effects were expected in models controlling for prior levels of psychological adjustment (Hodges et al., 1999) and involving 3-way interactions that are already difficult to detect (McClelland & Judd, 1993). Relatedly, given the subjective nature of our socio-emotional distress outcomes, a relatively small proportion of their variance was accounted for by between-school differences. Thus, it would be important to include a larger number of schools in future studies. Additionally, it is important for future research to examine classroom norms and other within-school factors that can help account for variability in adolescents' well-being.

Implications

While it is encouraging that risks from the relational domain can be offset by protection from the larger social context and vice versa, this presents new complexity and challenges for anti-bullying interventions. Critically, a school with more prosocial peers is not synonymous with a school absent of bullying. This is important because unlike prosocial peer behavior that likely alleviates the distress of victimized youth who lack friends, lower rates of victimization in school can increase victims' distress (Bellmore et al., 2004; Huitsing et al., 2012). In schools where bullying is less common, victimization may be more severe or directed chronically at a

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small group of youth (van Noorden et al., 2016). Indeed, in schools with less bullying, victimized youth are more likely to feel responsible for their plight and blame themselves (Schacter & Juvonen, 2015). Feelings of self-blame are likely further exacerbated when victims do not receive any peer support, such as classmates standing up to a bully. As such, interventions should not only focus on reducing *rates* of bullying, but also find ways to support victims, especially those lacking adequate social provisions. For example, interventions that incorporate social-emotional learning to achieve school-wide change in social norms have shown significant promise not only in improving students' social-emotional skills, but also increasing their prosocial behavior at school (Durlak et al., 2011).

Timing these interventions with challenging developmental and social transitions (e.g., to middle school) may offer an opportunity to promote positive social norms in a new environment before antisocial norms (e.g., tolerance for bullying) get reinforced. Recent studies on adolescents demonstrate that much like for antisocial behaviors, peers influence one another's prosocial behaviors (Choukas-Bradley, Giletta, Cohen, & Prinstein, 2016; Paluck et al., 2016). Given that our results show bullied youth in less prosocial schools were less likely to feel anxious if they had a friend, we must also recognize how specific peer relationships can offer compensatory support for youth in less prosocial contexts. Thus, victimized adolescents may benefit most from interventions that integrate targeted and school-wide approaches, seeking to provide victimized youth with proximal social support (i.e., friendship) while simultaneously promoting more prosocial attitudes and behaviors among the broader peer group at school.

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Table 1.

Descriptive Statistics for Main Study Variables (Measured at the Individual Level)

Variable Name	Min.	Max.	<i>M</i>	<i>SD</i>	Rating Scale
6th Grade Predictors					
Peer-Reported Victimization (Nominations Received)	0.00	35.00	.59	1.60	N/A
Friends (Nominations Received)	0.00	19.00	3.08	2.45	N/A
Perceived Peer Prosocial Norms	1.00	5.00	2.78	0.79	1-5
Social Anxiety	1.00	5.00	2.08	0.78	1-5
Loneliness	1.00	5.00	1.65	0.78	1-5
Perceived School Safety	1.33	5.00	4.27	0.66	1-5
7th Grade Outcomes					
Social Anxiety	1.00	5.00	2.14	0.74	1-5
Loneliness	1.00	5.00	1.59	0.76	1-5
Perceived School Safety	1.00	5.00	4.27	0.64	1-5

Note. In subsequent analyses, a) peer-reported victimization was z-score standardized within schools to account for differences in number of potential nominators and b) friends was dichotomized to distinguish between students with or without at least one friend.

Table 2.

Within-School Correlations Among Main Variables (Measured at the Individual Level).

	1.	2.	3.	4.	5.	6.	7.	8.	9.
6th Grade Predictors									
1. Peer-Reported Victimization	--								
2. Friendship	-.112***	--							
3. Perceived Peer Prosocial Norms	-.029*	.003	--						
4. Social Anxiety	.049***	-.034*	-.079***	--					
5. Loneliness	.144***	-.144***	-.159***	.384***	--				
6. Perceived School Safety	-.071***	.054***	.131***	-.346***	-.265***	--			
7th Grade Outcomes									
7. Social Anxiety	.067***	-.056***	-.084***	.472***	.408***	-.243***	--		
8. Loneliness	.112***	-.097***	-.123***	.338***	.508***	-.204***	.531***	--	
9. Perceived School Safety	-.073***	.056***	.141***	-.274***	-.319**	.416***	-.391***	-.393***	--

Note. Continuous variables centered within school prior to computing correlations to capture purely within-school associations.

*** $p < .001$, ** $p < .01$, * $p < .05$.

Table 3.

*Effects of 6th Grade Victimization, Friends, and School Prosocial Norms on 7th Grade**Adjustment*

	Social Anxiety		Loneliness		Perceived School Safety	
6 th Grade Predictors	Estimate	SE	Estimate	SE	Estimate	SE
Intercept	2.155***	0.035	1.615***	0.046	4.254 ***	0.031
Individual level						
Sex	0.058**	0.017	0.082**	0.030	-0.006	0.019
African-American	-0.120**	0.035	-0.026	0.036	0.041	0.028
Asian	0.191***	0.029	0.200***	0.056	-0.112**	0.032
White	0.087***	0.024	0.122*	0.051	-0.085*	0.033
Other	0.015	0.025	0.071	0.049	-0.046	0.032
Parental Education (SES)	0.014	0.010	-0.001	0.012	0.002	0.006
Perceived Prosocial Norms	-0.039**	0.012	-0.066***	0.013	0.072***	0.012
Baseline Adjustment	0.431***	0.017	0.469***	0.020	0.397***	0.014
Peer Victimization	0.055**	0.017	0.068**	0.020	-0.037	0.020
Friend	-0.080**	0.030	-0.133***	0.036	0.056*	0.022
Victimization X Friend	-0.031	0.022	-0.021	0.027	0.016	0.019
School level						
Prosocial Norms (aggregate)	0.245	0.222	-0.210	0.361	0.306	0.176
Ethnic Diversity	0.127	0.215	-0.038	0.253	0.496*	0.201
Cross-level interactions						
Victimization X School Prosocial Norms	-0.305*	0.124	-0.292*	0.135	0.271*	0.138
Friend X School Prosocial Norms	0.098	0.214	0.408	0.294	-0.095	0.156
Victimization X Friend X School Prosocial Norms	0.435*	0.188	0.392*	0.195	-0.339*	0.139

Note. *** $p < .001$, ** $p < .01$, * $p < .05$. Boys are the reference group for sex (girls=1) and Latino students are the reference group for ethnicity.

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