

Exceptionality and Peer Victimization Involvement in Late Childhood: Subtypes, Stability, and Social Marginalization

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Abstract

This study examined subtypes and stability/change in peer victimization involvement among students with exceptionalities. Data were collected over spring of fifth grade and fall/spring of sixth grade with 1,861 students in 36 rural schools as part of a cluster randomized trial of a context-based intervention (Supporting Early Adolescent Learning and Social Success [SEALS]) designed to support students' transition to early adolescence. More than 74% of students with disabilities were involved in peer victimization, and they were more likely to be nominated as victims and bully-victims than students without disabilities. Students with disabilities, but not academically gifted students, had more stable involvement in peer victimization over time. Being socially marginalized in the network differentiated peer victimization stability. Although there were no differences between intervention and control schools in students with exceptionalities' peer victimization involvement, students with exceptionalities in intervention schools were less likely to perceive classmates encouraging bullying. Implications of interventions to reduce the risk for peer victimization are discussed.

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Compared to nondisabled peers, students with disabilities are more likely to be involved in peer victimization (Blake, Lund, Zhou, Kwok, & Benz, 2012). In the general population, four distinct types of peer victimization involvement have been identified: bullies, victims, bully-victims, and not-involved (Cook, Williams, Guerra, Kim, & Sadek, 2010; Schwartz, 2000). Although few studies have examined subtypes of involvement in students with disabilities, the extant research suggests that, compared to general education students, students with disabilities are more likely to be identified as victims and bully-victims but not as bullies (Farmer, Petrin, et al., 2012; Swearer, Wang, Maag, Siebecker, & Frerichs, 2012). Further, little research has examined academically gifted students' bullying involvement. Students who are academically gifted appear to not be at increased risk for peer victimization (Estell et al., 2009), but their involvement in the peer victimization process is highest during the middle school years (Peterson & Ray, 2006a).

Even though peer victimization at any time point is a concern, there is considerable fluidity in students' involvement across time, and stable patterns are most related to negative outcomes (Boivin, Petitclerc, Feng, & Barker, 2010; Pepler, Jiang, Craig, & Connolly, 2008). Youth who are chronically involved in peer victimization have a range of adjustment difficulties including social problems, low academic achievement, and mental health disorders (Biggs et al., 2010; Burk et al., 2011; Hanish & Guerra, 2004; Menesini, Modena, & Tani, 2009). Further, during the transition from childhood to adolescence, youth are sensitive to social dynamic processes that may contribute to involvement in peer victimization (Pellegrini, 2002). However, little research has focused on the peer victimization involvement of students with exceptionalities over time (particularly from one grade to the next) or during this socially vulnerable period.

There is a need to extend research on the peer victimization involvement of students with exceptionalities beyond a single time point and to examine stability in their patterns during the transition from late childhood to early adolescence (i.e., from fifth to sixth grade).

There is also a need to explore how social dynamic factors may be related to students with exceptionalities' involvement in peer victimization. As outlined in the introduction of this special issue (Farmer et al., this issue), the risk for involvement in peer victimization may reflect an interaction between students' interpersonal characteristics and the peer ecology in which they are embedded. Students who stand out as being different may develop negative social reputations and become scapegoats who are vulnerable to taunting and teasing by peers (Evans & Eder, 1993; Hymel, Wagner, & Butler, 1990). Further, students with exceptionalities' involvement in peer victimization may be related to their level of integration (i.e., prominence or centrality) in the peer system (Estell et al., 2009).

Social Vulnerability from Late Childhood to Early Adolescence

Both developmental and contextual factors may contribute to heightened vulnerability to peer victimization during the period from fifth to sixth grade. Developmental factors may include the onset of puberty, the growing importance of peer approval, the increasing stratification of the social system, the emerging importance of perceived popularity, and the increasing effectiveness of aggression as a way to influence the peer ecology (Cillessen, Mayeux, Han, de Bruyn, & LaFontana, 2014; Evans & Eder, 1993; Merten, 1996, 1997; Rodkin, 2011; Shi & Xie, 2012; Witvliet et al., 2010). Further, whether or not there is a transition from elementary to middle school, the social context tends to change from fifth to sixth grade as students are afforded increasing levels of autonomy, experience less direct adult monitoring of their social behaviors, and are provided opportunities to interact with an increasing number of peers (Eccles, 1999;

Evans & Eder, 1993; Farmer et al., 2013). In addition, when students do experience a transition from elementary to middle school, the social structure tends to be in flux for several months as the social hierarchy is reshuffled and students re-create their position in the social structure (Farmer et al., 2015; Pellegrini, 2002).

These shifting developmental and contextual factors may be particularly important for understanding students with exceptionalities' involvement in peer victimization. As Adler and Adler (1998) described in an ethnographic analysis of the peer culture in late elementary school, by the end of fifth grade the social system becomes increasingly stratified as distinct peer cliques are formed and some students and groups establish higher status than their classmates. Socially dominant youth tend to influence the peer culture, including the social status and peer group inclusion of their classmates (Rodkin, 2011). Bullying may become a part of the natural social dynamics as students organize themselves around socially valued characteristics, which may result in the social marginalization of youth who are perceived to be different (Adler & Adler, 1998; Farmer, Estell, Bishop, O'Neal, & Cairns, 2003; Witvilet et al., 2010; Vaillancourt & Hymel, 2006).

By early adolescence and the transition to middle school, these dynamics become amplified as students' sense of their social identity is heightened. Several ethnographic studies suggest that highly stratified social systems tend to form in middle school; in this context students may purposefully attack peers of lower status with both physical and social forms of aggression (i.e., starting rumors, triangulating friendships, manipulating peer group boundaries, making fun of or calling peer names) to control social resources and to promote their own position in the social hierarchy (Eder, Evans, & Parker, 1995; Merten, 1996, 1997). In fact, bullies may be skilled leaders who use both prosocial and aggressive strategies to promote and

maintain their social dominance (Dijkstra, Lindenberg, & Veenstra, 2008; Hawley, 2003). In support of this view, youth who are identified as pure bullies (i.e., non-victimized perpetrators) tend to be viewed by both peers and teachers as athletic and physically attractive leaders (Farmer et al., 2003; Vaillancourt & Hymel, 2006). Aggressive popular youth appear to set the norms for the acceptance of bullying in the social system (Dijkstra et al., 2008) and they promote their own prestige in the peer network by selectively targeting low prominent peers who are not connected with other high status classmates (Sijtsema, Veenstra, Lindenberg, & Salmivalli, 2009).

The literature on the linkages between social dynamics and peer victimization has been somewhat confusing because of the complexity of the relationship between different forms of popularity in the social system and how these types of popularity are related to distinct peer victimization involvement subtypes (Veenstra, Lindenberg, Munniksma, & Dijkstra, 2010). Bullies, victims, and bully-victims all tend to have social liabilities and are not liked or are actively disliked by some peers (Farmer, Lane, Lee, Hamm, & Lambert, 2012; Rodkin, 2011). Yet, many bullies are highly central and well connected in the peer system while victims and bully-victims tend to be socially marginalized (Estell, Farmer, & Cairns, 2007; Vaillancourt & Hymel, 2006). It should be noted that social marginalization is not the same as peer rejection. Peer rejection refers to how well a student is liked by classmates (Coie, Dodge, & Coppotelli, 1982). In contrast, social marginalization refers to low levels of social network centrality and few social affiliations with prominent or socially dominant peers (Farmer, Lane, et al., 2012). It appears that bullies are disliked leaders who use their high social network centrality (i.e., prominence) and peer connections to support their dominance while victims have low social centrality and few social resources to protect against attacks from peers (Eder et al., 1995; Farmer et al., 2003; Veenstra et al., 2010). Further, bully-victims tend to have the lowest levels

of centrality and few social affiliations with prominent peers (Adler & Adler, 1998; Estell et al., 2007; Evans & Eder, 1993; Rodkin, 2011).

Social Network Centrality and Peer Affiliations of Students with Exceptionalities

Because they may be perceived to be different in some way, students with exceptionalities may be particularly vulnerable to the social dynamics that contribute to peer victimization during the transition to adolescence. From elementary school through high school, many students with disabilities are marginalized in the social system, experiencing lower levels of social network centrality and either social isolation in the peer network or affiliations with other low centrality peers (Farmer et al., 2011; Pearl et al., 1998). Using ethnographic interviews and participant observation procedures, Evans and Eder (1993) found that students with disabilities were targeted for peer victimization because they had few friends and no close peers to intervene on their behalf. Further, while such incidents were often instigated by high status students, these researchers also described situations where low status middle school students (including students with disabilities) would bully other low status peers in an attempt to enhance their own status or to deflect taunting and teasing directed toward them. These findings were reflected in survey research on the social dynamics of bullying involvement of students with exceptionalities in fifth grade classrooms (Estell et al., 2009). Students with disabilities were more likely to be identified by teachers and peers as bullies and victims but their involvement was also related to their social network centrality and whether they affiliated with socially prominent and aggressive peers.

The literature on the social risk and peer victimization involvement of academically gifted students is less clear. In a study of the social network placement and social characteristics of students in late elementary classrooms, less than 1% of academically gifted students were

identified as socially isolated; these students were more likely to be identified by peers as prosocial leaders than were general education students and students with disabilities (Pearl et al., 1998). Similarly, fifth grade students who received academically gifted services had the lowest levels of teacher and peer reported bullying and victimization and they were also highly integrated into the social system (Estell et al., 2009). Yet, during the transition to early adolescence, “good” students who comply with adult rules rather than the rebellious adolescent culture run the risk of developing negative social reputations (Merten, 1996). On this count, academically gifted students who reported being victimized by peers perceived that having few social connections and not fitting into the adolescent culture contributed to their peer victimization (Petersen & Ray, 2006b). There is clearly a need to further examine the peer victimization involvement of academically gifted students, particularly during the transition from late childhood to early adolescence.

The Present Study

It appears that students with exceptionalities may be vulnerable to involvement in peer victimization during the transition from late childhood to early adolescence. Further, the social dynamics during this period may contribute to this involvement. But, more work is needed to clarify this relationship further. In particular, there is need for longitudinal research that examines students with exceptionalities’ peer victimization involvement trajectories across the fifth and sixth grades in relation to their social network centrality and their peer affiliations.

To help clarify students with exceptionalities’ social risk for involvement in the bullying process, the purpose of this study was to examine how youth with disabilities and academically gifted students fit in the social ecology during early adolescence in relation to their patterns of peer victimization involvement over three time points. Consistent with research showing that

youth are particularly vulnerable to involvement in peer victimization during the transition to early adolescence, we focused on the spring of fifth grade through fall and spring of sixth grade.

This study was conducted with a sample of rural schools involved in a cluster randomized trial designed to examine the impact of the Supporting Early Adolescent Learning and Social Success (SEALS) program on sixth grade students' school adjustment. The SEALS program is a professional development model that focuses on supporting teachers' use of proactive strategies to foster students' productive academic engagement while managing classroom behavior and social dynamics in ways that promote a positive classroom peer culture (Farmer et al., 2013; Hamm, Farmer, Lambert, & Gravelle, 2014). While the SEALS model does not explicitly address involvement in peer victimization, it does center on fostering a positive and supportive social ecology. Therefore, we were interested in exploring whether there were intervention effects of the SEALS model on the research aims examined in this study.

The first aim of this study was to examine whether students with disabilities and academically gifted students were differentially distributed in peer victimization subtypes compared to nondisabled peers. The second aim was to examine stability and change in students with disabilities' and academically gifted students' involvement in peer victimization as compared to nondisabled students. The third aim was to examine students' social network centrality in relation to stability and change in their involvement in peer victimization, especially for students with exceptionalities. The fourth aim was to examine students with disabilities' and academically gifted students' perceptions of whether peers would encourage each other to bully them. The final aim was to examine whether there were differences in the results for students in schools that were and were not involved in the SEALS program.

Method

The current study was part of a larger national project, REAL (Rural Early Adolescent Learning), which followed a cluster randomized controlled trials design. Matched pairs of schools were recruited for participation, and one of each pair was randomly assigned to the intervention or control condition. Intervention schools received a year-long professional development program for all sixth grade teachers (available to control schools at the end of the project). Details regarding the implementation of the professional development program, and the fidelity with which the program was implemented, can be found in (Authors, 2014). The research study to test the efficacy of the intervention employed a longitudinal design; data were collected pre-intervention (baseline; spring of fifth grade), and during and post-intervention (fall and spring of sixth grade).

Sample

Schools. The present study involved 36 schools that were located in nine states in the Far Western (n=4), Midwestern (n=4), Northern Plains (n=4), Southwestern (n=4), Southeastern (n=4), Appalachian (n=8), and Deep Southern (n=4) regions of the United States. Half of the schools were middle schools (grades 6-8); the other half utilized a k-8/k-12 configuration.

National Center for Education Statistics (NCES) data were used to identify schools that reflected the dominant school configuration used to educate sixth graders for the state and region in general (grades 6–8 middle school or k-8/k-12 configuration). A spreadsheet was generated that listed schools; their locale code that signified rurality; size; student achievement data, including test score and annual yearly progress status; percentage minority; and student free/reduced lunch rates. Schools were grouped according to proximity; within geographic groupings, schools were matched on the demographic data listed above. Schools that constituted

a possible match were invited to participate. One of the schools in each matched pair was randomly assigned to receive the SEALS program; the other served as a comparison school that did not undertake any SEALS professional development activities.

Teachers. All regular education sixth grade teachers in intervention and control schools were invited to participate as research participants; 100% consented (N = 188). All were licensed teachers; nearly all (i.e., 97%) were licensed in the content area they taught. The sample included 58.4% of teachers who reported 11 or more years of teaching experience; 45.7% of participating teachers held a Master's degree. The majority of participating teachers were White (71.0%) and female (75.0%). Teachers who self-identified as members of ethnic minority groups were concentrated in the Southwestern (Latino teachers; 3.2% of participating teachers) and the Deep South or Southeastern schools (African American teachers; 22.6% of participating teachers).

Students. All sixth grade students in regular education classrooms were invited to participate; 1861 students returned parental consent and assented to their own participation, reflecting a 62.2% consent rate across schools. Proportions of male and female students were comparable (48.1% male). A substantial proportion of the student sample (33.9%) was classified as a member of an ethnic minority group (African American, Latino, or Native American).

Data Collection Procedures

Consented students were gathered in the cafeteria or similar area and assured of their confidentiality as well as reminded that participation was voluntary and could be withdrawn at any time. Then, adhering to established protocol, a trained staff member led a group administration as students individually responded to survey items about themselves and their schooling experiences. Project staff circulated among participants, answering questions as needed. Students received school supplies for their participation. Teachers completed survey

packets about their own experiences and background, and rated aspects of interpersonal and academic competence for participating students. Teachers were compensated financially for their participation.

Student-level Measures

Peer victimization subtypes. Teacher assessment and peer-nomination data were used to classify students into one of four mutually exclusive bullying involvement subtypes (i.e., bully, victim, bully–victim, and not identified; see Estell et al., 2007). Teachers’ perceptions of participants’ involvement in bullying and victimization were taken from their responses to specific items from the Social Adaptation subscale (Farmer et al., 2003). Using a 7-point Likert-type scale, teachers rated the extent to which each participating student “bullies peers” and was “bullied by peers.” A higher score indicated a higher level on the designated attribute. On the student survey, participating students nominated peers into the role of “bully” and “picked on.”

Peer nominations for bully and picked on, and teacher ratings for bullies peers and bullied by peers, were first standardized by gender. Teacher ratings were then standardized by school. To be consistent with other studies that distinguish among bullies, victims, and bully–victims (e.g., Estell et al., 2007; Schwartz, 2000), a 0.50 SD cutoff was used to identify youth who were above average on bullying or victimization. Participants who had a z-score greater than +0.50 on either bully or bullies peers and a z-score of less than or equal to +0.50 on both picked on and bullied by peers were classified as bullies. Participants who had a z-score greater than +0.50 on either picked on or bullied by peers and a z-score of less than or equal to +0.50 on both bully and bullies peers were classified as victims. Participants who had a z-score greater than +0.50 on either bully or bullies peers and a z-score of greater than +0.50 on either picked on or bullied by peers were classified as bully–victims. Participants who had a z-score less than or

equal to +0.50 on all four measures were classified as not involved. In the spring of sixth grade, approximately 52% of students were identified as being involved in peer victimization (Bully-19.6%; Victim-19.4%; Bully-Victim-12.7%) and 48.2% of students were not involved.

Peer victimization stability. Based on student bullying involvement subtypes identified (i.e., bully, victim, bully–victim, and not identified) in spring of fifth grade and fall and spring of sixth grade, the peer victimization stability variable was created to indicate whether students were stably involved in peer victimization. Students were classified as Stable Involved when they were involved in any of the peer victimization classifications (i.e., bully, victim, bully-victim) consistently across the fifth and sixth grade time points. Students were identified as Stable Noninvolved when they had no involvement in peer victimization (i.e., not identified) throughout the study period. Students were identified as Changing if they moved from one of the peer victimization involvement categories to noninvolved or from noninvolved to one of the classifications at one of the three time points in this study. Students with only one data point were excluded from this analysis. In fifth through sixth grade, 38.9% of students were classified as Stable Involved, 32.5% were Changing, and 28.5% were Stable Noninvolved.

Exceptionality. Students' identification as having a disability and/or as academically gifted was obtained from school records. For the present study, students were classified as having a disability (disability = 1, no disability = 0) if school records indicated that students were identified by schools as having a disability (i.e., had an IEP and received special education services). Following this system, 8% of the sample was classified as having a disability. Academically gifted status was coded similarly (academically gifted = 1, if students were identified as receiving academically gifted services; otherwise academically gifted = 0). A total of 4.3% of students were classified as academically gifted.

Student background characteristics. Student minority status (1 = African American, Latino, or Native American students; 0 = White students) and gender (1 = male) were obtained from school records.

Peer encouragement of bullying. Peer Encouragement of Bullying is a 5-item subscale from the Peer Protective Ecology Scale (Song & Siegel, 2008). Students responded to a 5-point scale (ranging from Never to Always) to the prompt, “If I’m being bullied...” Items assessed student perceptions of the extent to which peers would encourage the bully (e.g., “My peers would laugh”). Cronbach’s alpha for this sample was .89. For the present study, students’ scores were taken from spring of sixth grade.

Social network centrality. Social-cognitive mapping (SCM) procedures were used to identify sixth grade student peer groups (Cairns, Gariepy, Kindermann, & Leung, 1996). In survey format, students were asked, “Are there some kids in your grade who hang around together a lot?” “Yes” responses were prompted to identify these social groups. For each school, a list of all nominated groups was entered into SCM computer software (SCM version 4.0; Leung, 1998). This program aggregates all nominations submitted and generates a report of peer groups based on these nominations. For the current study, social network information was used to calculate social network centrality, a measure of the individual’s standing in the peer social system. This emerges from the dual consideration of both the group and individual prominence, and is based on the number of nominations relative to the whole network. Individuals have two kinds of centrality: within their group and within the network. In both cases, the individual’s total number of nominations is measured against an index number of nomination. For within-group centrality, the index of comparison comes from the two most nominated people in the group, the average of whose total number of nominations is called n_g . Individuals are classified

as Nuclear in that group if their centrality index is greater than or equal to $.7(n_g)$. Individuals are Secondary if they are between $.7(n_g)$ and $.3(n_g)$. Those below $.3(n_g)$ are peripheral to the group. The centrality index for a group relative to the whole network is a comparison of the n_g of each group. The group with the highest n_g of all groups in the network is taken as the most nuclear group, and its centrality index, n_{gMAX} is the basis of comparison for all others. Groups are classified as Nuclear if their centrality index is greater than or equal to $.7(n_{gMAX})$. Groups are Secondary if they are between $.7(n_{gMAX})$ and $.3(n_{gMAX})$. Those below $.3(n_{gMAX})$ are peripheral. For an individual's network centrality (the measure used in this study), Nuclear members of Nuclear groups are Nuclear to the network. Secondary members of Nuclear groups and Nuclear and Secondary members of Secondary groups are Secondary to the network. All others with nominations are peripheral. Students not nominated to any group are socially isolated.

School-level Measures

Dummy coded variables were created to reflect each matched pair of schools; each pair was coded as 1 for its respective matched pair variable. School matched pair dummy coded variables were included in analyses that involved testing for school effects (i.e., intervention effects). Because these matched pair variables are included as control variables that are intended to account for the matched pair design of the study, they are not included in the reporting of results (see Brown, Jones, LaRusso, & Aber, 2010). A dummy coded variable was created to reflect intervention condition (1=intervention, 0 = control school).

Results

The results are presented below according to each of the study aims. The aims build from a focus on the distribution of students in the various peer victimization involvement types as a function of their education status, to an examination of the stability of students' involvement

in peer victimization in relation to their education status, and an exploration of peer victimization involvement stability in relation to students' social network centrality in the peer system. In addition, students' perceptions of peers' encouragement of bullying was examined in relation to their education status. Further, for each of the study aims, differences between intervention and control schools were examined to explore the potential impact of the SEALS model on students with exceptionalities' involvement in peer victimization.

Exceptionality Status and Peer Victimization Subtypes

The first aim was to examine whether students with disabilities and academically gifted students were differentially distributed in peer victimization subtypes in sixth grade as compared to nondisabled peers. Table 1 presents the corresponding percentages of each peer victimization subtype by student exceptionality status. In the spring of sixth grade, over 74% of students with disabilities were involved in peer victimization (22.7% - bullies; 33.3% - victims; 18.2% - bully-victims). In contrast, the majority of academically gifted students were not involved in peer victimization (61.4%).

Table 2 shows the relationship between exceptionality status and peer victimization subtypes. Using multi-level logistic analyses, Model 1 estimated the associations between intervention, exceptionality status and peer victimization subtypes in the spring of sixth grade while controlling for gender and minority status. School blocking variables that corresponded to the matched pairs of schools in the file were included in analyses; the worst-matched pair was omitted from analyses (see Hamm et al., 2014). Model 2 assessed whether the relationships between exceptionality status and peer victimization subtypes differed by intervention school. Odds ratio (OR) was used to interpret the relationship between exceptionality status and peer victimization subtypes. An OR greater than 1 means that the students in the exceptionality group

are more likely to be nominated into the specific victimization subtype than their peers not in the exceptionality group. An OR less than 1 means that members of the exceptionality group are less likely to be identified into the specific victimization subtypes than peers not in the exceptionality group. Compared to nondisabled students, students with disabilities were more likely to be nominated as victims and bully-victims (OR = 2.145, $p < .001$; OR = 1.697, $p < .05$, respectively), but were less likely to be identified as noninvolved students (OR = .352, $p < .001$). There was no significant intervention effect of the SEALS program on students' peer victimization subtype placement, and the associations between exceptionality status and peer victimization subtypes did not differ between intervention and control schools.

Exceptionality Status and Peer Victimization Stability

The next aim was to examine the stability and change in the involvement of students over fifth and sixth grades. Table 3 presents the percentages of each type of peer victimization stability by student exceptionality status. Well over half of students with disabilities experienced stable peer victimization involvement across fifth and sixth grade whereas nearly 40% of nondisabled students and only a quarter of academically gifted students were stably involved. However, more than 40% of academically gifted students moved in and out of peer victimization involvement across the three time points.

Table 4 presents the associations between intervention condition, exceptionality status, and social marginalization, and the patterns of stability in any peer victimization involvement (i.e., Stable-Involved, Changing, and Stable Noninvolved) in fifth grade-fall and sixth grade-fall and spring, controlling for gender and minority status (Model 1). The moderating effect of intervention condition was further examined in Model 2. Students with disabilities were more likely to have stable bullying involvement over time (OR = 2.348, $p < .001$), whereas

academically gifted students were less likely to experience stable bullying involvement (OR = .519, $p < .05$). As for changing patterns, students in intervention schools tended to experience less variability in their bullying involvement across time, compared to students in control schools (OR = .794, $p < .05$), but changing patterns did not differ by exceptionality status. For stable noninvolved patterns, students with disabilities were less likely to be classified as noninvolved consistently across fifth and sixth grade (OR = .446, $p < .01$). In intervention schools, students with disabilities and academically gifted students did not have differentiated stability patterns across fifth and sixth grade.

Exceptionality Status and Social Marginalization

Table 5 presents the distribution of students into social network centrality categories by exceptionality status. Students with disabilities were predominantly socially marginalized (i.e., socially isolated or peripheral) in the social network. Among students with a disability, fewer than 7% were classified as nuclear (i.e., highly prominent or well-integrated) in the sixth-grade social network system. Approximately two-thirds of these students were classified as socially marginalized, and one-third were secondary in the fall of sixth grade. In contrast, well over a third of academically gifted students were nuclear, nearly one third were secondary and very few were socially marginalized.

The next set of analyses specifically addressed the extent to which social marginalization in the fall of sixth grade was associated with stability of victimization experiences. For these analyses, social marginalization was coded as “1” for students whose centrality scores were classified as socially isolated or peripheral, and “0” for students whose centrality scores were classified as secondary or nuclear. Using multi-level logistic regression, Model 3 (see Table 4) estimated the associations between student social marginalization, and stability and change of

peer victimization involvement. Model 4 (see Table 4) also included interaction terms for exceptionality status and social marginalization, to determine the extent to which the stability of involvement in victimization was differentiated by social marginalization for students classified as having an exceptionality.

As shown in Table 4, student social marginalization was differentially associated with stability of peer victimization involvement. Students who were socially marginalized in their social network were more likely to have stable involvement (1.265, $p < .05$), but were less likely to not be involved (0.685, $p < .01$) compared to students who were not socially marginalized from fifth to sixth grade. The findings also indicate that social marginalization did not differentiate students who experienced changing patterns of peer victimization involvement over time. Additionally, as shown in Model 4, in the socially marginalized group, students with disabilities were more likely to have stable bullying involvement. The association between student exceptionality status and stability of peer victimization varied by social marginalization.

Exceptionality Status and the Perceptions of Peer Encouragement of Bullying

As presented in Table 6, our final analysis examined students' spring of sixth grade perceptions of the extent to which peers would encourage bullying behavior. Compared to nondisabled students, students with disabilities and academically gifted students maintained different perceptions of peer encouragement for bullying. Model 2 included estimation of these main effects as well as the extent to which these associations differed between intervention and control schools after accounting for the effects of gender and minority status. As demonstrated by the positive associations in the multilevel linear regression, students with disabilities (coeff. = .458, $p < .05$) and academically gifted students (coeff. = .407, $p < .05$) were more likely than peers not in these classifications to perceive that classmates encouraged bullying behavior.

Students' perceptions of peer encouragement of bullying did not differ between intervention and control schools overall, but in intervention schools, both students with disabilities and academically gifted students were less likely than nondisabled peers to perceive that classmates were more likely to encourage bullying behavior (coeff. = $-.386$ and coeff. = $-.604$, $p < .05$; respectively).

Discussion

The current findings suggest that students with disabilities and academically gifted students have somewhat different experiences with involvement in peer victimization, both from each other and from students who do not receive special education services. Students with disabilities had very high rates of being identified as victims and bully-victims. Moreover, they tended to be stably involved in peer victimization processes for all three time points across fifth and sixth grade. In contrast, academically gifted students did not have elevated rates of bullying involvement and were less likely to be stably involved in peer victimization processes. Also, students with disabilities tended to experience high levels of social marginalization while very few academically gifted students were socially marginalized. This finding is important because social marginalization was associated with stable peer victimization involvement and suggests that low levels of integration in the social system may contribute to chronic risk for involvement in the peer victimization process. Further, in the overall sample, students with exceptionalities perceived greater peer encouragement of bullying, which may be an indicator of their experience of coercive peer social dynamics. However, in intervention schools, students with disabilities and academically gifted students felt less peer encouragement of bullying. The SEALS program may have facilitated positive classroom ecologies and helped to reduce students with exceptionalities' negative perceptions and experiences with classmates.

Although the findings of this study align with what is already known about the involvement of students with exceptionalities in peer victimization, they also extend this knowledge base and provide insights for future research and intervention development efforts. As others have shown (e.g., Blake et al., 2012; Estell et al., 2009; Swearer et al., 2012), students with disabilities have elevated levels of involvement as victims and bully-victims while academically gifted students appear to be relatively less likely to be involved in victimization. Furthermore, the current results suggest that youth with disabilities are at great risk of experiencing the negative consequences of involvement in peer victimization due to elevated levels of stability in involvement over the school year. Fortunately, the findings of this study suggest that such involvement may be malleable and teachers may be able to create classroom environments and promote peer ecologies that reduce students with exceptionalities' perceptions of a negative social environment that promotes acts of bullying that are directed towards them.

Much like the view that problem behavior in the classroom is predictable and preventable (see Landrum, Scott, & Lingo, 2011), the current study suggests that teachers can learn how to manage classroom social dynamics that contribute to peer victimization. Victimization, bullying, and many of the precursors to school violence are embedded in the fabric of the social dynamics of the peer ecology (Gumpel, Zioni-Koren, & Bekerman, 2014). As Landrum and colleagues (2011) point out, one key means of preventing problems in the classroom involves keeping students engaged in academic instruction, productive behaviors, and positive social relationships. The SEALS program examined in this study focused on training teachers in universal strategies that merge the management of academic engagement, the positive management of students' behavior, and the management of the social ecology. Based on the current findings, the SEALS

program appears to promote an environment that may help to reduce students with exceptionalities' social risks for involvement in peer victimization.

Students with disabilities' involvement in peer victimization is a complex issue that cannot be addressed by universal interventions alone (Maag & Katsiyannis, 2012; Rose & Monda-Amaya, 2012). Many students with disabilities appear to experience sustained problems with peer victimization. At one level, students with disabilities may be perceived by peers as an easy and vulnerable target and are scapegoated by classmates because they have relatively little support from socially influential peers (see Estell et al., 2009; Evans & Eder, 1993). Reflecting the concept of social synchrony (Farmer, Wike, Alexander, Metahji, & Rodkin, in press), students with disabilities may also respond aggressively to the taunts and attacks of peers, and these responses may help sustain their role as a bully-victim (Gumpel et al., 2014; Maag & Katsiyannis, 2012). Sustained patterns of bullying involvement may be supported by the interplay between classroom social dynamics and the social characteristics and interactional patterns of specific students with disabilities.

Therefore, building from the current work as well as previous research, we propose that there is a tremendous need for the development of comprehensive, multi-factored programs that are designed specifically to reduce and prevent the involvement of students with disabilities who are chronically involved in the peer victimization process. First, there is a need for universal strategies that focus on managing the general social dynamics of the classroom including peer norms, peer group processes, and social reinforcement for peer victimization and bullying behavior (Farmer, et al., 2013; Ross & Horner, 2014). Second, there is a need for selected interventions that are aimed at enhancing the social competencies and skills of students with disabilities to reduce their social marginalization and vulnerability to peer victimization (Rose &

Monda-Amaya, 2012). Third, there is a need for indicated interventions that specifically target the social functions of the peer interactions of students with disabilities who are identified as being chronically engaged in peer victimization (Farmer, Lane, et al., 2012; Gumpel et al., 2014). Such interventions should be developed in a coordinated manner to operate as an integrative program and they should be designed in collaboration with teachers to include a strong linkage between teachers and school support personnel who assist in the intervention process (Landrum, Cook, Tankersley, & Fitzgerald, 2007; Motoca et al., 2014).

Limitations and Future Research

Although the findings of the present study provide new insights into the chronic risk and potential intervention needs of students with disabilities, there are several limitations that future research can address. First, the study sample is collected in rural schools. There is a need for additional research on the relationship between exceptionality status and peer victimization subtypes and stability/change as well as the intervention impact in urban and metropolitan settings. Second, this study examined a single dimension of social dynamics (i.e., social marginalization as measured by low social network centrality) at a single time point (i.e., fall of sixth grade). Further work is needed to examine the impact of the patterns of social marginalization across time and to explore other indices of peer group composition (e.g., peer sociometric popularity, peer aggression, peer victimization) in relation to subtypes and stability/change of peer victimization. Clarifying how different peer group factors are associated with distinct peer victimization subtypes and stability will yield differentiated information in regard to the design of social intervention in schools. Third, we only focused on measures obtained from teachers and peers. To reduce informant biases, future research can utilize observational measures to contextualize social interaction in classrooms.

An additional potential limitation of this study is that the analyses do not differentiate between students in specific special education classifications or students from different racial or ethnic backgrounds. As described in the Introduction of this special issue (Farmer et al., in press), there are potential problems in studies that include such analyses. First, the characteristics of students who are identified for a specific special education classification may differ markedly from one district or state to another. The risk of the false precision of using school-identified special education classifications is that it may confuse the knowledge base by attributing peer victimization risk to a specific disability category when the sample is in some way definitionally compromised. Second, while there may be racial and ethnic differences in peer victimization risk, there are problems with conducting such analyses in a decontextualized way. For example, the social roles and peer group processes that contribute to bullying involvement may vary for students from racial and ethnic minorities depending on whether the student's racial group is a minority within the classroom or whether the social structure of the classroom is organized around popularity and cross-group antipathies (Garandau, Ahn, & Rodkin, 2011; Wilson & Rodkin, 2011). Therefore, while we acknowledge that the current findings could be impacted by potential student characteristics that could not be examined in the current study because of sample and study constraints, these variables should be examined in research that is designed specifically to explore the interplay between students' interpersonal characteristics, their ethnic and racial status, and the classroom social context.

In conclusion, the findings suggest that educational status differentiated the subtypes of peer victimization. Students with disabilities, but not academically gifted students, were at heightened risk for involvement in peer victimization in sixth grade. Characteristics associated with disability may place these youth in vulnerable social positions that exacerbate their risk for

involvement in peer victimization. However, the SEALS program may help teachers to facilitate supportive classroom contexts that may mitigate some of the social dynamics that contribute to the peer victimization process. But clearly the SEALS universal approach is not fully sufficient; efforts to reduce students with disabilities' chronic involvement in peer victimization are likely to require the careful integration of ecologically-oriented universal approaches with more selected and targeted approaches for youth who demonstrate various social and behavioral vulnerabilities. To address this need, further research is warranted to enhance our understanding of malleable school social dynamics such as various indices of peer group composition and their relations to peer victimization involvement subtypes and patterns of stability/change. From this work, it should be possible to conduct complementary intervention development research that merges a focus on individual, peer group, classroom, and school characteristics and the corresponding social dynamics that contribute to involvement in peer victimization.

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