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Bullying Adolescents With Intellectual Disability

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Bullying, despite its pervasive media coverage and many adverse effects, has been examined little in youth with intellectual disability (ID). We assessed the prevalence, chronicity, and severity of bullying of, and by, 46 adolescents with ID and 91 with typical cognitive development (TD). Measures of bullying at child age 13 were derived from separate semistructured interviews with mothers and adolescents, and victimization across middle childhood was based on mother questionnaire reports. Adolescents with ID were significantly more likely to report being bullied than their TD peers. However, the victimization of adolescents with ID was not reported to be more chronic or severe than that of TD adolescents. Although victimization decreased from middle childhood through early adolescence, trajectories of victimization did not differ based on disability status. Lower social skills emerged as the primary predictor of victimization; thus implications for intervening with social skills deficits seen in youth with ID are discussed.

KEYWORDS *bullying, victimization, adolescents, intellectual disabilities*

Bullying is a serious public health concern that has received considerable media attention in recent years. At the public policy level, a number of state legislature and presidential conferences have been devoted to reducing bullying in schools and communities across the nation. The increasing

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attention to bullying reflects the substantial adverse effects that victimization may have on children and adolescents who have been bullied by their peers. In particular, victimization is a significant predictor of both interpersonal problems and internalizing emotional problems such as anxiety and depression (Graham, Bellmore, & Mize, 2006; Hawker & Boulton, 2000; Nishina, Juvonen, & Witkow, 2005; Perren, Dooley, Shaw, & Cross, 2010). Moreover, these psychosocial problems may contribute to additional negative outcomes for victimized students including poor school performance, often because of frequent absences or impaired concentration (Card & Hodges, 2008; Nishina et al., 2005). In the worst cases researchers have found increased rates of suicidal ideation among victimized youth (Rigby & Slee, 1991; Skapinakis et al., 2011).

Although we know that bullying is extremely harmful, many aspects of bullying, and the children and adolescents who are frequently targeted, remain unknown. Youth with intellectual disability (ID) may be at heightened risk for victimization and likely have fewer resources to cope with the experience. Yet they have received little attention in the media or in the considerable research literature. This study focused on victimization of adolescents with and without ID comparing the prevalence, chronicity, and severity of victimization in these two groups. We built upon prior research by examining accounts from adolescents and also from their mothers and assessed the agreement between these two reporters. We also examined changes in being bullied from earlier assessments in middle childhood to early adolescence. Finally, we examined whether behavior problems and/or social skill deficits were related to being a bullying victim.

Olweus (1994) defined bullying as the exposure to negative actions on the part of one or more individuals where there is an imbalance of strength or asymmetry in the power relationship between the victim and bully/bullies (Olweus, 1994). Bullying has been found to be very prevalent among children and adolescents in the United States, although prevalence rates range widely depending on the study methods used as well as the time period, the population, and the child ages examined. One study of typically developing children reported the prevalence of bullying across students' entire school careers, finding that 77% were bullied at some point (Hoover, Oliver, & Hazler, 1992). Studies that focused on shorter periods (e.g., one academic year) found lower rates of 20 to 60% (Ahmad & Smith, 1990; Card & Hodges, 2008; Rigby, 2000). Research on the frequency of bullying has indicated that 6 to 15% of children and adolescents experience frequent bullying, often defined as "at least once a week" or "a lot" (Rigby, 2000; Rigby & Slee, 1991; Whitney & Smith, 1993). The severity of bullying has received less attention; however, some studies have examined types of bullying, finding that verbal (e.g., name calling) and relational bullying (e.g., exclusion, spreading rumors) are more common than physical bullying, such as pushing or hitting (Wang, Iannotti, Luk, & Nansel, 2010).

Bullying of children and adolescents with ID has received little systematic study. The limited investigations generally suggest that children with disabilities experience elevated rates of victimization, with some studies reporting rates as high as 3 or 4 times that of children without disabilities (for a review see Carter & Spencer, 2006). However, like the rates for typically developing children, these prevalence rates vary considerably based on the age and time period examined and the way in which victimization is assessed (e.g., any occasion of bullying vs. frequent bullying). Moreover, much of this research has used combined samples of children with physical as well as intellectual disabilities (Dawkins, 1996; Llewellyn, 2000; Yude, Goodman, & McConachie, 1998) or examined populations with unspecified disabilities (O'Moore & Hillery, 1989) or mild learning disabilities (Norwich & Kelly, 2004) and/or mental health disorders such as attention-deficit/hyperactivity disorder (Nabuzoka, 2003; Unnever & Cornell, 2004). Thus by combining different types of disabilities these studies do not give a clear picture of bullying of children with cognitive limitations. Accordingly, there remain significant gaps in the literature on victimization of children and adolescents with ID.

Nevertheless, a few studies have examined rates of bullying among children with ID, citing prevalence rates between 50 to 80% for any incident of bullying (Emerson, 2010; Glumbic & Zunic-Pavlovic, 2010) and 8 to 15% for frequent bullying (Mishna, 2003; Whitney, Smith, Thompson, 1994). Although these rates appear similar to those cited for typically developing children, studies of children with ID rarely have included comparison groups of typically developing (TD) children. One exception is a study in Israel of students at one high school, which reported rates of different types of bullying (Reiter, Bryen, & Shachar, 2007). Significantly more students with ID (vs. those with TD) reported incidents of physical bullying (being forced to do something), sexual abuse (sexual harassment, unwanted sexual touching), and emotional abuse (humiliation). Given the methodological differences between studies, and the resulting wide ranges of prevalence estimates we have noted, it is particularly important to contrast bullying of children with ID to bullying of children with TD assessed in the same way. The present study included chronological age-matched groups of 13-year-old adolescents with and without ID to study the relative risk of victimization and also of being a bully.

Moreover, research on typically developing children suggests that externalizing behavior problems or deficient social competence may place some children at risk for victimization by their peers (Reiter & Lapidot-Lefler, 2007; Whitney, Nabuzoka, & Smith, 1992). In particular, these children may be "provocative victims" who act out toward their peers and are subsequently ostracized and victimized for their behavior.

There is substantial research showing that children with ID are at elevated risk for externalizing behavior problems (Baker, Blacher, Crnic, &

Edelbrock, 2002; Einfeld & Tonge, 1996; Whitaker & Read, 2006) and experience higher rates of mental health disorders (and disruptive behavior disorders in particular) than their peers (Baker, Neece, Fenning, Crnic, & Blacher, 2010; Cormack, Brown, & Hastings, 2000; Dekker & Koot, 2003; Emerson & Einfeld, 2010). Behavior problems have been found to be a risk factor for bullying among typically developing children (Reiter & Lapidot-Lefler, 2007), so youth with ID may be at particular risk for bullying given their elevated levels of behavior problems. Likewise, children with ID by definition have lower adaptive behaviors and may also have poorer social skills than their TD peers, perhaps placing them at further risk for victimization (Neece & Baker, 2008). Although many researchers have discussed behavior problems and social skills as explanatory mechanisms for the higher rates of victimization among children with disabilities, few studies have examined these.

Although most research on bullying has focused on victimization, of concern as well is whether children with ID themselves bully others. There is some evidence to suggest that children with ID may be bully-victims (i.e., children who are victimized by their peers and, in turn, bully others) or may bully others more frequently than their TD peers (Sheard, Clegg, Standen, & Cromby, 2001). More study is needed to determine whether and why children with ID bully others and if such bullying is primarily in the context of retaliation for being bullied themselves.

THE CURRENT STUDY

This study addresses four primary questions about the victimization of children and adolescents with and without ID: (a) Are there status group (ID, TD) differences in the prevalence, chronicity, and severity of being the victim or perpetrator of bullying in early adolescence? (b) Do differences in prevalence of victimization persist over time? (c) If youth with ID are more often victimized, is this difference accounted for by behavior problems and/or social skills deficits often associated with ID? (d) Do mothers and adolescents agree in their reports of victimization and bullying? By addressing these questions, this study builds on previous research, identifying whether there is increased risk of victimization for children and adolescents with ID and if so, what may explain this elevated risk.

METHOD

Participants

Participants were 137 mothers and 13-year-old youth, classified as having intellectual disability (ID: $n = 46$) or typical cognitive development (TD:

$n = 91$). These families were participating in the Collaborative Family Study, a longitudinal study conducted in central Pennsylvania (The Pennsylvania State University) and southern California (University of California, Los Angeles, and University of California, Riverside). The study has focused on factors influencing the development of behavior problems and social competence. The majority of the families (94.9%) had enrolled in the study at child age 3 and continued with regular assessments through age 13; the remainder enrolled at age 13. Families were included in the study if the primary interview measure was obtained from the mother and/or the adolescent.

ID group participants were recruited through agencies that provide services for people with developmental disabilities as well as local schools. TD group participants were initially recruited through preschools and daycare programs whereas later enrollees were recruited through middle schools. School and agency personnel were mailed brochures describing the study to families who met selection criteria. Interested parents phoned the research center to obtain more information about the study and, if still interested, to set up an initial home visit.

Participants were included in the ID group if, at age 13, they had an IQ below 85 on the Wechsler Intelligence Scale for Children (WISC-IV; Wechsler, 2003), a standard score below 85 on the Vineland Scales of Adaptive Behavior-II (VABS; Sparrow, Cicchetti, & Balla, 2005), and did not meet any of the exclusionary criteria (described later). Participants were included in the TD group if they had an IQ of 85 or above on the WISC-IV, no premature birth or previous diagnosis of a developmental disability, and if they did not meet any of the exclusionary criteria. Exclusion criteria for both subsamples included being nonambulatory, having severe neuroimpairedments, having a diagnosis of Fragile X or autism at intake, or having another disability that would prohibit their full participation in the procedures described later. Of note, this study includes children with borderline intellectual functioning (IQs of 71–84) in the ID group. This decision was based on prior research demonstrating similarities in the difficulties faced by those with borderline intellectual functioning and those with ID (Fenning, Baker, Baker, & Crnic, 2007).

Table 1 shows demographic characteristics at child age 13 by developmental status group (ID, TD). Fifty-six percent of all participants were male and 56% also were Caucasian. Overall the sample had above average income and education and a majority of mothers were married. Family income was significantly related to group status; the TD group had more families with annual incomes of \$50,000 or higher than the ID group. Mothers' education was also significantly related to group status, with mothers in the TD group having completed significantly more years of schooling than mothers in the ID group. Given the significant group differences in the socioeconomic status variables (income and mothers' education), we included these as covariates in analyses if they related to the dependent variable.

TABLE 1 Demographics by Delay Status at Child Age 13

Demographic	Typically developing (<i>n</i> = 91)	Intellectual disability (<i>n</i> = 46)	<i>X</i> ² or <i>t</i> test (<i>df</i>)
Child			
WISC-IV IQ	108.8 (12.0)	63.0 (13.1)	<i>t</i> = 20.15 (131)***
Vineland Adaptive Behavior	96.2 (9.9)	73.6 (11.7)	<i>t</i> = 11.84 (133)***
Gender (% male)	52.7%	62.2%	<i>X</i> ² = 1.10 (<i>N</i> = 136)
Race/Ethnicity (% Caucasian-non-Hispanic)	(59.3%)	(48.9%)	<i>X</i> ² = 1.33 (<i>N</i> = 136)
Mother and family			
Mother's marital status (% married)	(76.7%)	(68.9%)	<i>X</i> ² = 0.94 (<i>N</i> = 135)
Income \$50,000 +	(75.3%)	(53.3%)	<i>X</i> ² = 6.61 (<i>N</i> = 134)*
Mother's years of schooling	16.0 (2.4)	14.6 (2.3)	<i>t</i> = 3.21 (101)**

p* < .05. *p* < .01. ****p* < .001.

Procedures

The Institutional Review Boards of the three collaborating universities approved all procedures. Families who met enrollment criteria were scheduled for a visit to the nearest center; a few families completed the assessment in their home. During this visit, staff reviewed procedures, answered questions, and obtained informed consent. Prior to each center visit, participants were mailed packets of surveys to complete and return during the center visit. The measures of interest for this article were collected as part of the packets completed by parents during the 8-, 9-, and 13-year assessments as well as during the center visit at age 13.

Measures

Wechsler Intelligence Scale for Children, Fourth Edition (WISC-IV; Wechsler, 2003). Scores from the Vocabulary, Matrix Reasoning, and Arithmetic subtests of the WISC-IV were used to estimate intellectual functioning at child age 13 to determine an estimated IQ range and confirm status group (TD or ID) classification. The selection of these three subtests was based on their high correlation (*r* = .91) with the full scale IQ from the full administration of the WISC-IV (Sattler & Dumont, 2004).

Vineland Scales of Adaptive Behavior-II (VABS; Sparrow et al., 2005). The VABS is a semistructured interview conducted with a parent or other caregiver that assesses the child's adaptive behavior in a variety of domains. Scores from the communication, daily living skills, and socialization subscales comprise the Adaptive Behavior Composite. This measure has been shown to have good reliability (alphas in the low 80s for most subscales) and validity for children (Sparrow et al., 2005). The VABS was administered

at age 13 and the composite standard score was used to classify participants as ID and TD.

Child Behavior Checklist for Ages 6–18 (CBCL; Achenbach & Rescorla, 2001). This child/adolescent version of the CBCL, completed by mothers, has 118 items that describe specific behavioral and emotional problems. The respondent indicates, for each item, whether it is *not true* (0), *somewhat or sometimes true* (1), or *very true or often true* (2), now or within the past 6 months. The CBCL yields a total problem score, broadband externalizing and internalizing scores, eight narrowband syndrome scores, and six Diagnostic and Statistical Manual of Mental Disorders (DSM)-oriented scores. The total score was used as a measure in the present study.

Parent Interview. The semistructured Parent Interview was conducted at child age 13. During the (average) 45-min interview, parents (usually mothers) were asked to describe any significant life events that had occurred in the family and how these had impacted the adolescent, the adolescent's friendships and relationships with his or her peers, and the adolescent's experiences (if any) of being bullied or bullying others. The interview also asked about any concerning behaviors or involvement with negative peer groups; relationship with his or her sibling(s) (if applicable); and school involvement, performance, and attitudes. Clinical psychology graduate students administered the interviews. They were trained in the administration of semistructured interviews and received ongoing feedback on their administration to ensure fidelity across interviewers. A detailed coding system had been developed based on the administration of the Parent Interview at youth age 12, and a coding team worked together for over a year and achieved high reliability. Coded parent responses to the bullying section of the interview were used in the present study as parent-report scores for bullying victimization, chronicity and severity of bullying, and bullying others. Descriptions of the relevant codes and how responses were coded are given in the Results section.

Adolescent Interview. The semistructured Adolescent Interview was conducted at child age 13; it was developed to parallel the Parent Interview in content. Adolescents were asked to describe their friendships and relationships with peers, their relationship with their sibling(s) (if applicable), their involvement in school, opinions of school, and whether they had experienced or engaged in any bullying. As with the Parent Interview, trained graduate students administered the Adolescent Interview. Similarly, a coding system was developed for each of the domains addressed in the interview, and coded adolescent responses to the bullying section of the interview were used in the present study. Descriptions of the relevant codes and how responses were coded are given in the Results section.

Parent Rating of Social Acceptance (PRSA; adapted from Harter & Pike, 1984). The PRSA is a six-item questionnaire assessing children's social acceptance and peer sociometric standing. Respondents (mothers) are asked to rate four items assessing social acceptance on a scale from 1 (*never true*)

to 4 (*very true*). The current study used one item on the questionnaire that asked mothers to rate how much their child got teased, called names, or was bullied by other kids. PRSA data were available from child ages 8, 9, and 13 years, so this is the only measure that will be considered over time.

RESULTS

Prevalence of Victimization

Prevalence rates of bullying victimization were drawn from a categorical code (Bullied Y/N) included in the semistructured interviews administered to the mother and adolescent. The prevalence rates of victimization among adolescents with and without ID are shown in Table 2. Adolescents with ID experienced rates of victimization between 52 and 62% according to mother and adolescent report, respectively. TD adolescents experienced lower rates of victimization, 41–42% according to both reporters. The adolescent reports of victimization showed significantly higher rates of victimization in the ID group than the TD group ($p = .03$). Although mother reports of victimization also showed higher rates for the ID group, this difference did not approach significance.

Chronicity of Victimization

Chronicity of victimization was operationalized as an ordinal code from the semistructured interviews with mother and adolescent. Based on information

TABLE 2 Prevalence, Chronicity, and Severity of Victimization by Delay Status at Child Age 13

Variable	Typically developing ($n = 91$)	Intellectual disability ($n = 46$)	X^2
Prevalence of victimization ^a			
Adolescent report	36 (40.9%)	23 (62.2%)	$X^2 = 4.72$ ($N = 125$)*
Mother report	29 (42.6%)	21 (52.5%)	$X^2 = 0.32$ ($N = 108$)
Chronicity of victimization ^b			
% 3–4 on 4-point scale (Adolescent report)	16 (44.4%)	8 (34.8%)	$X^2 = 0.54$ ($N = 59$)
% 3–4 on 4-point scale (Mother report)	15 (51.7%)	13 (61.9%)	$X^2 = 0.51$ ($N = 50$)
Severity of victimization ^b			
At least moderate (Adolescent report)	13 (36.1%)	12 (52.2%)	$X^2 = 1.48$ ($N = 59$)
At least moderate (Mother report)	23 (79.3%)	14 (66.7%)	$X^2 = 1.01$ ($N = 50$)

^aNumber and percentage of sample. ^bNumber and percentage of those with yes for prevalence.

* $p < .05$.

given in the interview, coders rated the chronicity of victimization (for those reporting bullying) on a 4-point scale where 1 = *one incident*, 2 = *2–5 incidents*, 3 = *frequent bullying lasting less than 1 month*, and 4 = *chronic bullying or frequent bullying lasting more than 1 month*. In most cases where bullying was reported there was more than one incident (Adolescents, 66%; Parents, 82%). Table 2 shows the chronicity of victimization according to adolescent and mother report by stricter criteria: a score of 3 or 4 on the scale. Neither adolescent nor mother reports yielded a significant chronicity difference between ID and TD youth. Thus, adolescents who were bullied, regardless of ID or TD status, tended to experience multiple incidents of victimization.

Severity of Victimization

Severity of victimization was operationalized as an ordinal code from the semistructured interviews with mother and adolescent. Based on information given in the interview, coders rated the severity of bullying (for those reporting bullying) on a 4-point scale where 1 = *minimal severity*, 2 = *moderate*, 3 = *marked*, and 4 = *severe*. Table 2 also shows the severity of victimization according to adolescent and mother report. Mothers reported a high percentage of youth who were bullied were experiencing victimization, defined here as at least of moderate severity. The adolescents themselves reported considerably lower rates of moderate to severe bullying. Status groups did not differ significantly by mother or adolescent reports.

Prevalence of Bullying by Our Target Youth

The mother and adolescent interviews also asked about whether our target youth had engaged in bullying. Prevalence rates were drawn from a categorical code (Bully Y/N) included in the semistructured interviews. Table 3 shows the prevalence rates of bullying among adolescents with ID or TD reported by mothers and youth. Mothers of ID youth reported that 14.6% had bullied others; however, only 1 adolescent with ID acknowledged bullying others. Mothers of TD youth reported that 22.4% had bullied others, whereas 10.2% of TD adolescents acknowledged bullying others. These reports of bullying by our participants were overall low and the status group differences (ID vs. TD) did not approach significance.

Chronicity and Severity of Bullying

Chronicity and severity of bullying were each operationalized as ordinal codes from the semistructured interviews with mother and adolescent. Scoring followed the scales described earlier for victimization. Table 3

TABLE 3 Prevalence, Chronicity, and Severity of Bullying by Study Participant, by Delay Status at Child Age 13

Variable	Typically developing (<i>n</i> = 91)	Intellectual disability (<i>n</i> = 46)	<i>X</i> ²
Prevalence of bullying ^a			
Adolescent report	9 (10.2%)	1 (2.8%)	<i>X</i> ² = 1.91 (<i>N</i> = 124)
Mother report	15 (22.4%)	6 (14.6%)	<i>X</i> ² = 0.98 (<i>N</i> = 108)
Chronicity of bullying ^b			
% 3–4 on 4-point scale (Adolescent report)	2 (22.2%)	0 (0%)	^c
% 3–4 on 4-point scale (Mother report)	3 (20.0%)	2 (33.3%)	^c
Severity of victimization ^b			
At least moderate (Adolescent report)	2 (22.2%)	0 (0%)	^c
At least moderate (Mother report)	5 (33.3%)	2 (33.3%)	^c

^aNumber and percentage of sample. ^bNumber and percentage of those with yes for prevalence. ^c*N*s too small for statistical analyses.

shows the chronicity and severity of bullying according to adolescent and mother report. The number of youth rated by themselves or their mothers with chronic or severe bullying was too small for meaningful statistical analyses.

Bullying Victimization Over Time

The frequency of bullying victimization was obtained on mother-completed PRSA measures at child ages 8, 9, and 13. To examine the trajectory of bullying over time, multilevel growth model analyses were conducted using hierarchical linear modeling (Bryk & Raudenbush, 1992). These growth models examined trajectory of frequency ratings of bullying from child age 8 to age 13. All participants who had PRSA data at any of the three time points (ages 8, 9, and 13) were included in these analyses. To assess significant change over time, unconditional growth models were examined including only an intercept (representing the dependent variable at Time 1) and slope (representing the linear rate of change of the dependent variable across ages 8–13). The variable used to represent time ranged from 0 to 5 because there were two yearly time points, from child age 8 through age 9 years (coded 0 to 1, respectively) and one time point 4 years later at age 13 (coded as 5). Additional growth functions were also examined (i.e., quadratic and cubic) and if the inclusion of the additional function significantly improved the fit of the model then it was included.

Table 4 shows the results of the unconditional growth models. The quadratic function significantly improved the fit of the model ($X^2 = 3.79$,

TABLE 4 Results of Multilevel Models

Variable	Frequency of bullying
<i>Unconditional model</i>	
Intercept parameter (g_{00})	1.92***
Linear slope parameter (g_{10})	.20*
Quadratic slope parameter (g_{20})	-.03*
Intercept variance component (d_0)	.55***
Linear slope variance component (d_1)	.12**
<i>Conditional model</i>	
Intercept parameter (g_{00})	1.77***
By status (g_{01})	.46**
Linear slope parameter (g_{10})	.31**
By status (g_{11})	-.34
Quadratic slope parameter (g_{20})	-.06**
By status (g_{21})	.07

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

$p < .05$) and therefore was included in the models as well. The quadratic slope variance component was not significant and therefore was not included in the model. Results from the unconditional model suggested significant overall increase in the frequency of bullying over time in the combined sample (positive linear slope from age 8 to 13) and the rate of increase in bullying appears to be growing over time (negative quadratic slope from age 8 to 13). In other words, adolescents reported being bullied more frequently over the course of development and the rise in bullying seemed to accelerate in early adolescence.

Conditional growth models were run to test whether the bullying trajectories were different in the two status groups (TD and ID). Table 4 shows the results of this model as well. For both models, child intellectual status (TD vs. ID) was specified so that the TD group was set to 0 and the ID group to 1. Similar to the unconditional models, there was a significant increase in bullying over time (positive linear slope was significant) and the rate of increase in bullying appears to be growing over time (negative quadratic slope was significant). However, child intellectual status did not predict either slope, indicating that changes over time were similar in both groups.

Risk Factors for Victimization

We considered risk factors for bullying beyond status group (TD/ID) using adolescent reports, as these showed a significant status group effect. We examined the five CBCL narrowband scales that represented domains one might reasonably expect would relate to adolescent reports of bullying victimization; we set alpha at .01. Victimization was not related significantly to the externalizing scales (aggression, rule breaking) or

TABLE 5 Logistic Regression Analysis Predicting Victimization

Variable	B	SE	Wald	Sig.
Step 1				
Status group	0.89	0.42	4.62	0.03
Constant	-0.36	0.22	2.68	0.10
Step 2				
Status group	-0.50	0.46	1.18	0.28
CBCL social problems	0.14	0.07	4.33	0.04
Constant	-0.66	0.27	6.13	0.01

anxious/depressed. However, victimization was related to social problems ($t = 2.87, p = .005$) and to social withdrawal ($t = 2.64, p = .01$), two highly correlated domains ($r = .56, p < .001$). We entered status group (Step 1) and social problems (Step 2) into a stepwise logistic regression. As neither of the socioeconomic variables (mother's years of schooling and family income) was related to victimization, they were not included as covariates. Table 5 shows results from the logistic regression. Status group related significantly to victimization. On the next step the youth's social problems entered significantly, and when these were accounted for, status no longer related significantly. When the regression was rerun with the withdrawn score entered in Step 2 (not shown), the results were highly similar to those in Table 5; withdrawal accounted for significant variance (Wald = 4.33, $p = .037$) and ID/TD status no longer accounted for significant variance. Thus, the youth's own social behavior deficits may account for the status group difference in victimization.

Adolescent and Mother Agreement

Kappa coefficients were used to examine the agreement between adolescent and mother reports of victimization prevalence and results demonstrate moderate agreement between reporters (kappa = 0.38, $p < .001$). Pearson correlation coefficients used to examine agreement between mother and adolescent reports of the chronicity and severity of victimization showed no significant relationships.

DISCUSSION

A greater percentage of youth with intellectual disability (ID: 62%) reported being the victims of bullying than those with typical development (TD: 41%). Mothers of youth with ID also reported a greater percentage of bullying than those of youth with TD though the mother reports did not differ significantly.

Although youth with ID are more likely to be bullied than their TD peers, neither they nor their mothers reported more severe or chronic bullying.

Analyses of a parent-report measure of bullying victimization taken at ages 8, 9, and 13 showed that victimization decreased significantly as children move from middle childhood to adolescence. However, this trajectory of bullying did not differ between youth with ID or TD. By this measure as well, youth with ID experienced higher rates of victimization, although these rates changed over time in the same manner for TD and ID adolescents.

In considering victimization further, we found that youth social problems and social withdrawal each related significantly to greater victimization. Each of these considered alone accounted for the ID/TD differences in bullying; when either variable was entered in the regression, status group no longer entered significantly. Adolescents with ID are less likely to have developed age-appropriate social skills, and this may explain the heightened vulnerability to bullying. Interventions designed to improve children's social skills may provide a valuable direction for future research. There is evidence that group social skills training for adolescents not only produces changes within the group context but also generalizes to the youths' social experiences beyond the group (Laugeson, Frankel, Mogil, & Dillon, 2009). By improving children's social skills, researchers may aid youth with (or without) ID in forming better relationships with their peers. Improved peer relationships may serve a direct protective function as well as an indirect one by helping children form friendships that may buffer the adverse effects of victimization.

The interviews also asked about the youth's experiences of bullying others. Understandably both mother and youth reported much lower incidences of the youth as bully versus the youth as victim. Mothers reported similar percentages of bullying in the TD and ID groups. However, adolescents with TD reported a lower rate and only one adolescent with ID reported bullying others. Thus, whereas adolescents with ID may deny or not realize that they are picking on other children, their mothers report that they do so at the same rate as their typically developing peers. Mother reports of chronicity and severity of bullying others were low and did not differ by status group. Only a few adolescents with TD reported chronic and/or severe bullying, and given that only 1 adolescent with ID acknowledged bullying at all, questions of group differences in chronicity and severity were moot.

Although mothers and adolescents agreed relatively well on whether victimization occurred, their awareness or recollection of the severity and frequency of victimization did not concur. Moreover, mothers and adolescents did not agree when asked whether the adolescent had bullied others. The lack of acknowledgment of bullying by adolescents with ID may reflect that they actually bully very little, or it may reflect denial, embarrassment about answering this question, poor recall, or lack of awareness with regard to picking on peers. At the same time, it is possible that parents may interpret

interactions between their child and his or her peers as bullying when the interaction is not perceived as such by the adolescent.

Bullying, whether as victim or bully, may be more accurately measured within the context where it most often occurs: the school. This study relied on measures of bullying from parent-completed surveys and interviews conducted with mothers and adolescents. Mothers' awareness of bullying would be limited by the extent to which the adolescent discusses these events with his or her parents. Teacher reports, or direct observations at school, could provide a missing piece of the puzzle, capturing victimization that children do not recall or want to discuss. Also, future studies could examine the broader school context of bullying by assessing factors such as the overall school climate around bullying, school response to bullying incidents, the type and climate of the classroom, and the quality of the student-teacher relationships.

Victimization among children with ID may also reflect disablism, meaning discrimination against someone with a disability because of the disability (Emerson, 2010). Research on factors associated with being bullied also suggests that receiving additional help in school or having few friends may partly explain why children with disabilities are frequently targeted by their peers (Dawkins, 1996). Likewise, placement in a special education classroom may put students with ID (and those with other disabilities) at risk by even more clearly distinguishing them from their peers. Although associated with having a disability, these factors are important variables to include in research on victimization of children with ID.

In summary, this study found that adolescents with ID were not bullied more chronically or severely than their TD peers. We did not, however, examine the effects of being bullied on the youth. Although research on bullying in typically developing youth points to many adverse psychological, social, and academic effects (Nishina et al., 2005; Rudolph, 2011), it remains unclear whether or not the adverse effects of bullying are even more severe for adolescents with ID. As a result of their cognitive delays, adolescents with ID may be less able to make sense of victimization and reframe why they may have been bullied. Their attributions about the experience may differ from those made by their typically developing peers and may place them at greater risk for internalizing symptoms. Moreover, the same factors that place youth with ID at greater risk for victimization (social problems, social withdrawal) may also prevent them from coping successfully with being bullied. For example, poor social skills may preclude forming close friendships and thus minimize opportunity to receive social support following incidents of victimization. In this light, future longitudinal research through adolescence should examine the trajectory of bullying experiences for adolescents with ID and whether victimization relates to increased internalizing symptoms and other adverse effects compared with typically developing adolescents.

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