

Cross-informant Agreement on Bullying and Victimization of Middle School Students with and without Behavioral Disorders

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Cross-rater agreement on bullying, victimization, and related behaviors of middle school students with and without behavioral disorders (BD) was investigated. Students with BD (n = 11), their peers (n = 90), and general education teachers (n = 10) completed the Peer Relationship Survey (PRS), a non-anonymous measurement scale. The results of self-, peer-, and teacher-ratings each indicate that students with BD were seldom, if ever, identified as bullies (0%, 9%, and 0%, respectively) and that they are more often identified as victims (64%, 55%, and 55%, respectively) and bully/victims (23%, 12%, and 19%, respectively) than their peers. The level of agreement between self-, peer-, and teacher-ratings of bullying and related behaviors was generally significant for peers (students without BD). However, agreement between self-ratings and ratings of other informants for the behaviors of students with BD was limited or non-existent. Use of stand-alone self-ratings may not be adequate for developing effective bullying prevention and intervention approaches. The high level of self-reports of bullying involvement by students with and without BD has implications for classroom curriculum and school policy.

Introduction

In an era of inclusive education and increasing diversity in our schools, the importance of understanding bullying involvement and status of students with disabilities, specifically of students with behavioral disorders (BD), is more critical than ever before. The term “behavioral disorder” refers to an “emotionally disturbance (ED)” which is “a condition exhibiting one or more of the following characteristics over a long time and to a marked degree that adversely affects a student's educational performance: An inability to learn that cannot be explained by intellectual, sensory or other health factors; An inability to build or maintain satisfactory interpersonal relationships with peers and teachers; Inappropriate types of behavior or feelings under normal circumstances; A general pervasive mood of unhappiness or depression; A tendency to develop physical symptoms related to fears associated with personal or school problems; Emotional Disturbance includes schizophrenia. The term does not apply to children who are socially maladjusted, unless it is determined that they have an emotional disturbance (IDEA, 2004).”

Students with disabilities and students with challenging behaviors are served, sometimes exclusively, in regular education classrooms in neighborhood schools. As Kramer, Olsen, Mermelstein, Balcells, and Liljenquist (2012) note, educators are expected to create safe learning environments in which effective instructional practices allow all students to meet rigorous educational standards. Although much public interest and research has scrutinized bullying, little attention has been given to the interaction between disability and bullying (Hawker & Bolton, 2000; Rose & Gage, 2017; Rose, Monda-Amaya, & Espelage, 2011) or to informant variables that affect the perceived prevalence of bullying, the roles of those involved in it (Branson & Cornell, 2009; Nabuzoka, 2003; Salmivalli and Nieminen, 2002; Zych, Ortega-Ruiz, & Rey, 2015), or how educators can utilize such knowledge to improve classroom practices and establish supportive school environments for all students. With regard to sources of information related to bullying, there is insufficient information on how informant factors impact the validity and potential efficacy of preventive, educational, and therapeutic interventions.

Research documents the overrepresentation of students with disabilities in bullying incidents and indicates that students with disabilities who have social and behavior problems are more likely to bully and be bullied (Farmer et al., 2012; Rose, 2011; Rose et al., 2017; Swearer, Espelage, Vaillancourt, & Hymel, 2010). These students are also more likely to have more risk factors associated with bullying (e.g., academic difficulties, peer rejection, impulsivity and hyperactivity, withdrawal/shyness, lack of protective friends) than other students (Caputo, 2014; Ladd, Ettekal, & Kochenderfer-Ladd, 2017; Swearer & Hymel, 2015; Zhao & Chang, 2019). Students with BD exhibit externalizing (e.g., disruptiveness, hyperactivity, impulsivity, aggressiveness) and internalizing (e.g., anxiety, depression, withdrawal, extreme shyness) behavior problems that overlay patterns of behaviors seen in bullying participants (Cho, Hendrickson, & Mock, 2009; Farmer et al., 2012; Rose & Espelage, 2012). Solberg and Olweus (2003) suggested that being bullied is related to internalizing problems and bullying is related to externalizing problems.

The four types of bullying participants involved in bullying are bullies (those who bully others), victims (those who are bullied by others), bully/victims (those who bully others and who also are bullied by others), and non-bully/non-victims (not directly involved in the bullying interactions). The definition of bullying behaviors is that bullying occurs when a particular student is repeatedly harassed or attacked verbally or physically by one or more students (Salmivalli & Nieminen, 2002). Harassment and attacks include repeatedly calling a particular student names; making jokes; spreading rumors; excluding a particular student from the group; shoving, hitting, or fighting with a particular student; taking or destroying a particular student's things, or behaving in a way meant to hurt a particular student.

Teacher evaluations indicate that students with BD display more bullying behaviors than students without disabilities (Monchy, Pijl, & Zandberg, 2004; Van Cleave & Davis, 2006) and have more bullying involvement than students with other disabilities. Self-reports of students with BD suggest high rates of bullying involvement (Rose et al., 2012). Active bullying participants are more often rejected and display more behavioral problems than students who are not involved in bullying, and bully/victims tend to have the most problematic and complex behavioral characteristics. Bully/victims may be the most challenging bullying participants to treat because they present both externalizing and internalizing behavioral problems (Cho et al.,

2009). Rose et al. (2012) interpret the high rate of bullying among students with BD in a nuanced manner and suggest that a higher percentage of students with BD are actually victims but are misidentified as bullies due to their reactively aggressive behaviors. Goldbach, Sterzing, and Stuart (2018) and Sterzing and colleagues (2020) note that some students are both victims and bullies and therefore should be classified as bully/victims. These conclusions have implications for classroom teachers, administrators, and related service providers.

Informants in Bullying Studies

The questions of what type of data to collect and from whom to collect it are central to understanding bullying. To date, three primary informants are usually surveyed in most approaches to understanding bullying: students' self-reports, peer-reports, and teacher-reports.

Self-reports. Student self-report is the most commonly used method of assessing bullying interactions and is considered the best measure for estimating prevalence (Solberg & Olweus, 2003). Self-reports are relatively easy to administer, are low cost, protect confidentiality, and theoretically rely on the most expert of witnesses: the student himself or herself. The anonymity of the vast majority of self-reports, however, does not lend itself to (a) direct cross-informant comparisons or (b) the development of individual or classroom-specific interventions. Nonetheless, bullying research continues to draw conclusions based primarily on student self-reports. Consequently, the database underlying our understanding of bullying and bullying-related behaviors is flawed due to reliability and validity issues. These flaws impact the effectiveness of strategies for improving school climate, increasing educator and parent awareness, making competent policy decisions, and ultimately decreasing bullying in schools.

Peer-reports. Peer-reports seem to yield a more valid assessment of bullying interactions than self-reports since the information is obtained from multiple informants who are likely to have witnessed or participated in bullying incidents (Monchy et al., 2004; Nabuzoka, 2003). Cho et al. (2009) note that peer-ratings of students with and without BD show good inter-rater reliability. Moreover, studies examining negative peer interactions support the construct validity of peer-reports of bullying (Graham, Bellmore, & Juvonen, 2003; Ladd & Kochenderfer-Ladd, 2002). In general, peer-reports are conducted using a peer nomination method (Branson et al., 2009) to identify probable bullies and victims. A range of techniques may be employed by the researcher: (a) having each student identify bullying participants when they are given a list of names or by free recall, (b) requesting nominations from a limited or unlimited set of names, (c) including participation of the entire class or a part of the class, (d) using cutoff scores when ratings or rankings are used, and/or (e) establishing consensus among students in relation to bullying participation (Card & Hodges, 2008). However, in addition to the ethical (e.g., managing any potential negative consequences) and logistical challenges (e.g., labor-intensive data collection and analysis) of peer nomination or peer-ratings (Kumpulainen, Räsänen, & Puura, 2001), it can be difficult to obtain approval from institutional review boards (Espelage et al., 2003) and informed consent from teachers and parents.

Teacher-reports. Much of the bullying research raises questions about the effectiveness of teacher-reports in identifying bullying participants (Hazler, Miller, Carney, & Green, 2001; Holt & Keyes, 2004) and in developing interventions related to bullying (Espelage & Asidao, 2001).

Compared to students, teachers often report lower rates of bullying (Holt et al., 2004) and underestimate involvement in bullying by students with behavior problems (Monchy et al., 2004). Despite this, teacher-reports reflect the perspectives of influential decision makers and have the advantage of being easy to collect for large numbers of students. In the absence of peer-reports, teacher-reports can provide insights on peer relationships, school climate, and bullying behavior across settings within schools.

Cross-informant Agreement between Self-, Peer-, and Teacher-reports

Among the limited number of studies on cross-informant agreement on bullying (e.g., Demaray, Malecki, Secord, & Lyell, 2013; Henry, 2006; Pellegrini, & Bartini, 2000; Waasdorp, Pas, O'Brennan, & Bradshaw, 2011), a few have specifically investigated the bullying involvement of students with disabilities. Some cross-informant studies use student self-reports in conjunction with teacher-reports (e.g., Wienke Totura, Green, Karver, & Gesten, 2009), and other studies compare peer- and teacher-reports (e.g., Estell et al., 2009; Nabuzoka, 2003;) as well as self-, peer-, and teacher-reports (e.g., Hinshaw & Zuber, 1997). Generally speaking, these studies document a lack of correlation in the responses of different informants. The extent of accuracy and agreement on bullying interactions across informants has been a long-standing concern in bullying studies (Cornell, Sheras, & Cole, 2006). In a review of 30 studies published over 20 years on bullying and students with disabilities, Rose and colleagues (2001) found that only two studies (i.e., Kumpulainen et al., 2001; Monchy et al., 2004) specifically targeted students with behavioral problems and compared evaluations of multiple informants (i.e., student, teacher, parent). Their results indicate cross-informant discrepancies in the assessment of bullying and bullying related behaviors.

Over- and under-reporting of bullying interactions via self- and teacher-reports may be associated with the subjectivity of students' self-ratings and the relatively limited opportunities for adults, including teachers, to observe students' social behaviors (Branson et al., 2009; Graham & Juvonen, 1998). Moreover, bullying studies to date have used various measures which differ in terms of question items, inputs (e.g., nominations, rating scales), and administration formats (e.g., individual interview, group survey administration). Most studies also are conducted anonymously, making one-to-one comparisons of the ratings of students across self-, peer-, and teacher-reports impossible.

Purpose of the Study

The overarching goals of the current study are (a) to contribute in a preliminary manner to building a cross-informant database related to bullying and students with BD, (b) to encourage educational researchers and practitioners to carefully consider instrumentation options when investigating or evaluating bullying, and (c) to increase awareness of the potential impacts of instrument selection on school policies. First, since there is a dearth of information on bullying and students with BD and because the school and neighborhood are so often the location of bullying incidents, we chose to gather data in neighborhood schools. Second, we targeted students in middle school, where teachers, administrators, and parents report heightened concerns related to bullying and behavioral problems (Benedict, Vivier, & Gjelsvik, 2014; Nansel et al., 2001; Unnever & Cornell, 2004; Williford, Boulton, & Jenson, 2014). Third, we

obtained the perspectives of students with BD, peers, and teachers, not only to get a more comprehensive snapshot of bullying, but to enable us to examine cross-informant agreement. Fourth, to eliminate concerns that using different instruments leads to different informant results (Casper, Meter, & Card, 2015), all participants completed the same instrument. Fifth, only students, peers, and teachers familiar with one another participated in the study, thereby increasing the likelihood of a sufficient number of mutual experiences that would lead to better-informed responses.

Three research questions guided the study. What do self-ratings, peer-ratings, and teacher-ratings indicate about:

1. the prevalence of bullies, victims, bully/victims, and non-bully/non-victims of middle school students with and without BD?
2. the relationship between bully, victim, and related behaviors (i.e., inattention, hyperactivity, withdrawal/shyness, and prosocial behavior)?
3. the behavioral patterns of students identified as bullies, victims, bully/victims, and non-bully/non-victims?

Method

Participants and Setting

Participants were 101 middle school students, including 11 students with BD, and 10 regular education teachers in four school districts in the Midwestern United States (see Table 1). Only data having all three ratings (self, peer, and teacher) were included in the data analysis for the study.

Table 1
Demographic Characteristics of Student Participants

Characteristic		All Participants (<i>n</i> = 101)	BD (<i>n</i> = 11)	Non-BD (<i>n</i> = 90)
Gender	Male	47 (46.5%)	9 (81.8%)	38 (42.2%)
	Female	54 (53.5%)	2 (18.2%)	52 (57.8%)
Age	11	31 (30.7%)	3 (27.3%)	28 (31.1%)
	12	38 (37.6%)	6 (54.5%)	32 (35.6%)
	13	17 (16.8%)	1 (9.1%)	16 (17.8%)
	14	15 (14.9%)	1 (9.1%)	14 (15.6%)
Grade	6	57 (56.4%)	6 (54.5%)	51 (56.7%)
	7	19 (18.8%)	3 (27.3%)	16 (17.8%)
	8	25 (24.8%)	2 (18.2%)	23 (25.6%)
Ethnicity	African American	4 (4.0%)	0 (0.0%)	4 (4.5%)
	Asian American	1 (1.0%)	0 (0.0%)	1 (1.1%)
	Caucasian	89 (89.0%)	9 (81.8%)	80 (89.9%)
	Native American	1 (1.0%)	0 (0.0%)	1 (1.1%)
	Pacific Islander	1 (1.0%)	0 (0.0%)	1 (1.1%)
	Others	4 (4.0%)	2 (18.2%)	2 (2.2%)
	Missing Data	1 (1.0%)	0 (0.0%)	1 (1.1%)

Students and their teachers were recruited from 25 regular education classrooms. To be eligible for the study, students with BD had to meet the criteria for a diagnosis of Emotional Disturbance in the Individuals with Disabilities Education Improvement Act of 2004, be served as students with BD by the school district, and be placed in one or more regular education classes for more than three or more months. Only students with BD who were partially or fully included in general education classrooms were identified by teachers and schools. "Partially included" was defined as a student with BD who attended a general education class for part of the school day. As long as the student with BD received at least one period of instruction in a general education classroom (15% of the school day), he or she was considered to be "partially included." Only students with BD and peers who submitted both a parental consent form and a child assent form were included in the data collection. Teachers who had students with BD in their classes and who provided consent participated in the study. Peers (students without BD) and students with BD had been placed in the same regular education class for three or more months. As recommended by Salmivalli and Nieminen (2002), the participants were familiar with one another.

Materials and Procedure

This study was approved by an appropriate Institutional Review Board. The Peer Relationship Survey (PRS) (Cho et al., 2009) was completed by students with BD, peers, and teachers. The student and teacher forms consist of 20 identical items that are rated on a 3-point Likert scale (0 = "Never or Rarely," 1 = "Sometimes or Occasionally," 2 = "Often or Always", DK = "Don't Know"). The PRS is comprised of six scales, with two scales related to bullying status (i.e., Bully and Victim), which are used to identify bullies, victims, bully/victims, and non-bully/non-victims), and four scales related to behaviors (i.e., Inattention, Hyperactivity, Withdrawal/Shyness, and Prosocial Behavior)(Boulton & Smith, 1994; Nansel et al., 2001; Olweus, 1995). For the six positively stated items (three items in the Inattention Scale, one item in the Hyperactivity Scale, and two items in the Withdrawal/Shyness Scale), the scores were reverse-coded. The PRS scales are shown in Table 2.

The PRS scales have adequate reliability and validity with Cronbach's alpha obtained from peer-ratings ranging from .71 to .90 (.90 for Bully Scale; .89 for Victim Scale; .90 for Inattention Scale; .78 for Hyperactivity Scale; .71 for Withdrawal/Shyness Scale; .85 for Prosocial Behavior Scale) (Cho et al., 2009). In order to assure that the PRS items (e.g., rating items) were written at an appropriate reading level for middle school students, to confirm that the directions were easy for the middle school students to follow, and to verify that the PRS identified bullying participants and their behaviors, PRS items were reviewed by experienced teachers and modified according to their feedback. In addition, the PRS was reviewed by three experts in bullying and survey construction for face and content validity and modifications were made accordingly. Lastly, the PRS was pilot-tested with students with and without BD in two general education classrooms in middle schools to obtain information about the time needed to complete the survey, to verify the clarity of survey items, and to test the standardized administration procedure.

Table 2
Peer Relationship Survey (PRS) Scales and Items

Scale	Item <i>This student...</i>
Bully	spreads rumors. starts or initiates bullying. encourages others to join in the bullying. finds new ways of harassing others.
Victim	gets hit or pushed by other kids. is excluded from the group. gets picked on by other students. is made fun of by other students.
Inattention	stays on task.* pays attention to the teacher and the lesson.* works well alone.*
Hyperactivity	is always on the go; acts like he or she is driven by a motor. runs around a lot; climbs on things. sits still during class.*
Withdrawal/Shyness	is shy. initiates conversations and activities.* likes to work or play with others.*
Prosocial Behavior	is friendly. helps other classmates. cares about others' feelings.

Note. * reverse-coded items

Correlations were examined between bully and victim scales and related behavior scales using peer-ratings (see Table 3). All scales were strongly correlated, ranging from $r = -.83$ to $-.46$ and from $r = .46$ to $.77$, $p < 0.01$, with the exception of the Withdrawal/Shyness, which only correlated with two scales: Victim scale ($r = .58$, $p < 0.01$) and Prosocial Behavior scale ($r = -.46$, $p < 0.01$). The Prosocial Behavior scale negatively correlated with all other scales.

Table 3
Pearson Correlation among All Variables for Students (N = 101)

	Bully	Victim	Inattention	Hyperactivity	Withdrawal/ Shyness	Prosocial Behavior
Bully	–					
Victim	.55*	–				
Inattention	.77*	.57*	–			
Hyperactivity	.67*	.46*	.76*	–		
Withdrawal/ Shyness	.16	.58*	.17	.03	–	
Prosocial Behavior	-.75*	-.65*	-.83*	-.63*	-.46*	–

Note. * $p < .01$

Each student rated himself/herself and each classmate (listed by name) on each item in the PRS scales. Each general education teacher rated each of the participating students (with and without BD) in his or her class on the same items. Parental consent, student assent, and teacher consent were obtained for data collection. The surveys were administered and collected in the regular education classrooms by two trained survey administrators between late Fall and Spring during an academic year. The survey administrators followed a script which included an explanation of the purpose of the study and step-by-step survey administration directions. Prior to beginning and immediately following the survey administration, the topic of confidentiality was addressed. Students verbally agreed not to discuss their answers with their classmates or anyone else. The survey administration began with reading the definition of bullying and discussing examples of “bullying” and “non-bullying.” Sessions typically lasted 40 to 50 minutes.

Bullying status was assigned to each student based on his/her within-class standardized scores (z-scores) on the Bully and Victim Scales (Salmivalli et al., 2002). A student was considered to be a *bully* when he or she received a z-score at or above 1.0 on the Bully Scale and a z-score below 1.0 on the Victim Scale. A student was classified as a *victim* when he or she received a z score at or above 1.0 on the Victim Scale and a z-score below 1.0 on the Bully Scale. A student with a z-score at or above 1.0 on both scales was considered a *bully/victim*. A *non-bully/non-victim* is a student who received a z-score below 1.0 on both scales.

Results

Prevalence of Bullies, Victims, Bully/Victims, and Non-Bully/Non-Victims

Table 4 presents the frequency and percentage of bullying status of students with and without BD reported on self-, peer-, and teacher-ratings (Research Question 1). In self-ratings, none of the students with BD categorized themselves as bullies. Ten (11.1%) students without BD identified themselves as bullies. Four students with BD (36.4%) identified themselves as victims (vs. nine students without BD, 10%). Three students with BD (27.3%) identified themselves as bully/victims (vs. two students without BD, 2.2%). Four students with BD (36.4%) and 69 students without BD (76.7%) identified themselves as non-bully/non-victims.

Peer-ratings revealed one student with BD (9.1%) as a bully (vs. four students without BD, 4.4%), one student with BD (9.1%) as a victim (vs. eight peers, 8.9%), and four students with BD (36.4%) as bully/victims (vs. seven peers, 7.8%). Five students with BD (45.5%) and 71 students without BD (78.9%) were identified as non-bully/non-victims.

Teacher-ratings showed that none of students with BD was recognized as a bully (vs. five students without BD, 5.6%), one student with BD (9.1%) as a victim (vs. eight peers, 8.9%), and five students with BD (45.5%) as bully/victims (vs. four peers, 4.4%). Teachers identified five students with BD (45.5%) and 73 students without BD (81.1%) as non-bully/non-victims.

All raters (i.e., self, peers, and teachers) indicated that students with BD were more involved in bullying than their peers without BD. Self-ratings revealed that 63.7% of students with BD were

Table 4
Frequency and Percentage of Bullying Status of Students with and without BD (N = 101)

Bullying Status	BD (n = 11)			Non-BD (n = 90)		
	Self	Peer	Teacher	Self	Peer	Teacher
Bully	0 (0%)	1 (9.1%)	0 (0%)	10 (11.1%)	4 (4.4%)	5 (5.6%)
Victim	4 (36.4%)	1 (9.1%)	1 (9.1%)	9 (10.0%)	8 (8.9%)	8 (8.9%)
Bully/Victim	3 (27.3%)	4 (36.4%)	5 (45.5%)	2 (2.2%)	7 (7.8%)	4 (4.4%)
Non-Bully/Non-Victim	4 (36.4%)	5 (45.5%)	5 (45.5%)	69 (76.7%)	71 (78.9%)	73 (81.1%)

involved in bullying and were identified as either victims or bully/victims. Self-ratings of peers (students without BD), showed that 23.3% of peers were involved in bullying and 12.2% of peers were identified as either victims or bully/victims.

Peer-ratings revealed that 54.6% of students with BD (vs. 21.1% of students without BD) were involved in bullying. Approximately 50% of students with BD were victims or bully/victims, while 16.7% of students without BD were identified as victims or bully/victims. Teacher-ratings showed that 54.6% of students with BD (vs. 18.9% of students without BD) were considered bullying participants and were identified as either victims or bully/victims (vs. 13.3% of students without BD as victims or bully/victims).

Correlational Analyses

Table 5 presents the correlations between self- and peer-ratings, peer- and teacher-ratings, and self- and teacher-ratings on all behavior patterns of students with and without BD (Research Question 2). No significant correlations were reported between self- and peer-ratings on any of the bullying-related behaviors of students with BD. Correlations between self- and peer-ratings were statistically significant for peers for four scales: Inattention, Withdrawal/Shyness, Bully, and Victim ($p < 0.01$). For students with BD, statistically significant correlations were reported on the Withdrawal/Shyness ($r = .61, p < 0.05$), Bully ($r = .64, p < 0.05$), and Victim ($r = .68, p < 0.05$) scales. Significant correlations between peer- and teacher-ratings for peers were found for all behaviors ($p < 0.01$). On the other hand, no significant correlations for self- and teacher-ratings on the behaviors of students with BD were found. Significant correlations between self- and teacher-ratings for peers were found for Inattention ($r = .24, p < 0.05$), Withdrawal/Shyness ($r = .37, p < 0.01$), Bully ($r = .23, p < 0.05$), and Victim ($r = .22, p < 0.05$) scales.

Mean Comparisons of Self-, Peer-, and Teacher-ratings of Students with and without BD

In order to investigate mean differences of self-, peer-, and teacher-ratings of students with and without BD (Research Question 3), behavioral patterns were compared between BD students and

Table 5

Pearson Product Moment Correlations between Self-, Peer-, and Teacher-Ratings on All Behavior Patterns of Students with and without BD (N = 101)

Behavior	Self vs. Peer		Peer vs. Teacher		Self vs. Teacher	
	BD (n = 11)	Non-BD (n = 90)	BD (n = 11)	Non-BD (n = 90)	BD (n = 11)	Non-BD (n = 90)
Inattention	.33	.39**	.49	.68**	.45	.24*
Hyperactivity	.37	.18	.59	.50**	.33	.19
Withdrawal/Shyness	.51	.39**	.61*	.48**	.55	.37**
Prosocial Behavior	.15	.20	.59	.59**	-.15	.08
Bully	.45	.30**	.64*	.56**	.04	.23*
Victim	.30	.60**	.68*	.48**	.52	.22*

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

non-BD students using independent t -tests (see Table 6). Adjustments were made for degrees of freedom when the assumptions of equal variances between the two groups were not met. Self-ratings showed that students with BD were significantly different from peers for the Victim Scale ($p \leq .05$). Specifically, students with BD perceived themselves to experience more Victim behaviors than students without BD. With the exception of Prosocial Behavior, students with BD self-reported lower average scores than students without BD on all behaviors.

In the case of peer-ratings, students with BD statistically significantly differed from peers ($p \leq .05$), receiving higher average scores on Inattention, Hyperactivity, Bully, and Victim scales and a lower average score on Prosocial Behavior than their peers. Even though students with BD received a higher average score on Withdrawal/Shyness, no significant difference was found between students with and without BD.

Teachers reported students with BD to have significantly higher average scores than peers in all bullying-related behaviors ($p \leq .05$) with the exception of Withdrawal/Shyness. Students with BD received higher average scores on the Inattention, Hyperactivity, Bully, and Victim scales and lower average scores on the Prosocial Behavior scale than their peers without BD.

Discussion

The current study extends the literature on the bullying involvement of students with disabilities (Kumpulainen et al., 2001; Monchy et al., 2004) by simultaneously examining the perceptions of three major stakeholders (self, peer, and teacher) using the Peer Relationship Survey (PRS; Cho et al., 2009). In general, self-, peer-, and teacher-ratings indicate that students with BD are significantly more involved in bullying interactions than those without BD. Students with BD experience more victimization and identified more often as victims or bully/victims than their peers, consistent with prior studies on the bullying involvement of students with BD (Rose et al., 2012). In the current study, students with BD generally displayed a significantly higher degree of both internalizing (e.g., Inattention, Withdrawal/Shyness) and externalizing (e.g., Hyperactivity, Bully) behavioral problems than peers without disabilities.

Table 6
Mean Comparisons on All Behavior Patterns of Students with and without BD (N = 101)

Behavior Pattern	Self-rating				Peer-rating				Teacher-rating			
	Mean		df	t	Mean		df	t	Mean		df	t
	BD	Non-BD			BD	Non-BD			BD	Non-BD		
Inattention	0.67	0.55	11.06	0.5	1.05	0.53	99	4.80 *	1	0.6	99	2.29*
Hyperactivity	0.67	0.64	99	0.2	0.92	0.54	99	4.36*	0.73	0.34	99	2.39*
Withdrawal/Shyness	0.82	0.56	10.95	1.18	0.83	0.6	11.06	1.97	0.83	0.7	99	0.76
Prosocial Behavior	1.27	1.57	99	-1.8	0.84	1.4	11.91	-5.49*	0.83	1.36	99	-3.36*
Bully	0.48	0.17	11.16	1.57	0.58	0.31	10.89	3.03*	0.92	0.4	99	3.15*
Victim	1.22	0.5	10.59	2.76*	0.61	0.21	11.85	3.09*	0.84	0.4	99	3.02*

Note. Items rated on a 3-point Likert scale (0 = Never or Rarely; 1 = Sometimes or Occasionally, 2 = Often or Always); * $p \leq .05$

Students with BD also had more prosocial skills deficits, a characteristic commonly observed in bullying participants, especially bully/victims (Farmer et al., 2012; Rose et al., 2012; Schwartz, 2003; Sterzing et al., 2017), whose educational, social, and emotional needs are especially complex. Indeed, future studies are needed to examine the challenges of bully/victims and specifically address their developmental issues.

Cross-informant comparisons between self-, peer-, and teacher-ratings revealed that self-reports generally show a higher rate of bullying than reports of peers and teachers. The heightened level of self-report of bullying involvement by students with and without BD suggests that victims and bully/victims are being overlooked by school personnel. To create safe environments with engaged students, it is essential for school personnel recognize the incidence of bullying involvement, especially for vulnerable students and those who have underdeveloped social skills, low academic achievement, and limited cognitive capacity.

Teachers more often than not appear to be inadequately prepared to adapt the curriculum or intervene supportively on behalf of students with challenging behaviors (Erdogdu, 2016; Zhao & Chang, 2019). It may be that peers and teachers seldom perceive students with BD as victims or bully/victims resulting in a less empathetic response. The behavioral responses to bullying of students with disabilities are likely to be ineffective in resolving bullying (Branson et al., 2009). Common characteristics of victims seem to be anxiety, insecurity, and ineffective defense against bullying. Bully/victims' attempts to fight bullies appear to fail because of their disorganization, uncontrolled emotional arousal, and ineffective fighting skills (Bijttebier et al., 1998). Moreover, these students are less likely to report bullying and may not understand that their own behavior may contribute to or reinforce bullying (Branson et al.,

2009). If schools do not have appropriate supports and sanctions in place for bullying participants, it is likely that the inappropriate behaviors of students may in fact increase the frequency and severity of bullying.

Self-identified victims may view their aggressive behaviors as justifiable responses to being bullied (Rose, 2011). Victims may feel misunderstood and unvalued by peers and teachers, which reinforces marginalization, disengagement, negativity, isolation, and/or animosity. Marshall and colleagues (2009) note that some students are surprised to learn that teachers viewed “teasing behavior,” which had no hurtful intention, as bullying. Misinterpretation of intent by students with BD who often have difficulty decoding social situations, may lead to a range of inappropriate social behavior during peer encounters and social exchanges.

A higher percentage of self-identified victims compared to previous studies may in part be explained in part by the fact that the current study used the PRS which avoided the words “victim” or “victimization,” choosing instead to use behavioral terms (i.e., descriptions of behavior) over more subjective item language (e.g., “being bullied”). Theriot, Dulmus, Sowers, and Johnson (2005) report that students are reluctant to explicitly admit that they are victims of bullying, but they are willing to report victimization “related” behaviors they experience.

Agreement between self-ratings and ratings of other informants for the behaviors of students with BD was limited or non-existent, while cross-informant agreement was generally strong for peers without BD. Students with BD gave themselves lower scores on problematic behaviors (i.e., inattention, hyperactivity, withdrawal/shyness, bully) and higher scores on pro-social and victim behaviors compared to reports of peers and teachers. This lack of agreement (self vs. peer and self vs. teacher) and limited agreement (peer vs. teacher) may be due to a range of factors, such as subjectivity, biases, and situation specificity of raters (Branson et al., 2009), but it underscores the need for teachers to develop positive relationships with each student with BD so that the teacher can better interpret a student's intent.

Generally, disagreement between raters tended to be more evident when evaluating students with BD. However, raters consistently reported different levels of hyperactivity and prosocial behaviors for both students with BD and without BD. Both student groups apparently underestimate the level of their problematic behavior and overestimate their prosocial competence. Since hyperactivity is a risk factor for bullying and predictive of future antisocial behaviors (Olweus, 1995) and prosocial behavior is a protective factor (Nabuzoka, 2003), it is critical for schools to identify and support students at the individual and school-wide level with regard to these facets of student development.

Strengths and Limitations

Discrepancies among self-, peer-, and teacher-ratings of students with and without BD have significant practical implications for teachers, parents, and school administrators, all of whom play important roles in the identification, development, and implementation of bullying prevention and intervention programs (Marshall et al., 2009). Our study stressed cross-informant

discrepancies related to bullying status and bullying involvement-related behavior of students with BD. Based on our data and prior studies we advocate for consideration of multiple data collection strategies (e.g., surveys, interviews, observations) for investigating student behaviors, school climate, and the attitudes of stakeholders (e.g., students, teachers, parents). It also appears that the involvement and commitment of those same stakeholders in relationship to bullying and bullying prevention and intervention will be mandatory for creating safe, locally responsive learning environments.

This study cannot explain why student self-report showed higher bullying involvement for both students with and without BD nor why there is a discrepancy between raters, especially between self-ratings and ratings of peers and teachers on the evaluation of students with BD. However, in the midst of contrasting findings in existing studies on correlations between teacher and student reports (Card et al., 2008), the present study suggests that students and teachers have different interpretations of bullying interactions and related behaviors of students with BD.

A limitation of the present study is that middle school students may have found the PRS challenging to complete due to time constraints during administration. Although most of the middle school participants completed the survey satisfactorily in a given class period, completion of the PRS in a similar time frame might be difficult for younger students and students with disabilities. Preliminary data suggests that the scales used in the current study have satisfactory psychometric properties. Further research is needed to determine the reliability and validity of the PRS and any variation in administration procedures needed for collecting data from other informants (e.g., parents, younger students).

Although self-, peer-, and teacher-reports all reported bullying involvement of students with BD, the current findings cannot confirm the actual bullying participants. Observational data might offer a better picture of the bullying status and interactions of students with and without BD. Methodologies using video cameras stationed unobtrusively in various bullying hot spots such as playgrounds, hallways, school buses, and lunchrooms might be useful for expanding the understanding of variables related to bullying and school effectiveness. Videotaped interactions also allow teachers, administrators, and even the students themselves an opportunity to learn more about the school environment, student responses to social contexts, the challenges of individual students, and attitudes about bullying displayed in the school.

Finally, a significant limitation of this study is the small sample of students with BD ($n = 11$). In addition, only four school districts in a specific region (Midwest United States) participated in the study. Therefore, it is not possible to generalize the results across all middle school students with BD. Future research should be scaled up with larger and more representative samples of students, general and special education teachers, and parents. In addition, school- and classroom-specific data should be available for utilization by educators to enable them to be responsive in a timely manner to local issues and needs.

Conclusion

In the present study, we focused on a specific high-risk student population (i.e., students with behavioral disorders) who are being served across the nation in classrooms with students without

disabilities. We examined and compared multi-informant perspectives on bullying interactions with the goal of understanding where perspectives of different informants align and where they differ. Knowledge of how different stakeholders perceive bullying interactions can be instructive in helping schools recognize, prevent, and intercede to reduce and eliminate bullying in schools. The findings of this study underscore prior research that suggests that there is cause for concern if self-report is the measurement tool of choice. The results also highlight the importance of specifically examining bullying in relation to subgroups of students (e.g., students with disabilities or from diverse backgrounds) to ensure that vulnerable students are safe and engaged at school. The results also strengthen the argument for examining the issue of bullying through the lens of multiple informants.

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