



Teachers' Perceptions of Self- and Peer-Identified Victims

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Abstract

This study examined whether teachers perceived difference between youth with divergent self- and peer-reports of victimization who exhibit varying patterns of adjustment. Using an ethnically diverse sample of 1360 students from 5th grade classrooms ($M_{age} = 12.01$) in rural schools across the USA, we examined teachers' perceptions of four different victim groups identified using latent profile analysis: *convergent victims* (high self- and peer-reports of victimization), *self-identified victims* (high self-, low peer-reports), *peer-identified victims* (high peer-, low self-reports), and *nonvictims* (low self- and peer-reports). We found that teachers perceived meaningful differences between victim groups on academic (e.g., problems paying attention), social (e.g., popularity, liked by peers), behavioral (e.g., aggression), and psychological (i.e., internalizing) indices as well as students' involvement in bullying. Key findings include that convergent victims had more problems academically (i.e., paying attention in class) and were more frequently bullied compared to all other victim groups according to teachers. Teachers also viewed self-identified victims as having more psychological problems and as being more frequently bullied than nonvictims, although they perceived no differences between self-identified victims and nonvictims on indices of social functioning such as popularity, whether they were liked by peers, or whether they were a class leader. Implications for our understanding of different types of victims and suggestions for how teachers and school personnel may support them are discussed.

Keywords Victimization · Self-report · Peer-report · Teacher perceptions · Student adjustment

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Peer victimization is a significant problem with critical implications for victims' short- and long-term adjustment (Hawker & Boulton, 2000; McDougall & Vaillancourt, 2015; Troop-Gordon, 2017) as well as broader implications for classmates' mental health and school functioning (e.g.,

Reuland & Mikami, 2014). One challenge for school personnel is understanding who is being victimized, a challenge exacerbated by the meaningful differences in youths' adjustment depending on whether they self-identify as victims, are seen as victims by their peers, or both (Dawes, Chen, Farmer, & Hamm, 2017; Graham & Juvonen, 1998; Graham, Bellmore, & Juvonen, 2003; Scholte, Burk, & Overbeek, 2013). It is critical that this challenge is met given the pivotal role that teachers play in reducing the climate of victimization, supporting victimized youth, and facilitating productive peer relationships in their classrooms (Farmer, Lines, & Hamm, 2011; Troop-Gordon, 2015; Yoon & Bauman, 2014).

Our major study aim was to examine teachers' perceptions of groups of students with divergent self- and peer-reports of victimization on key adjustment indices across multiple domains of functioning. Capturing a broad array of characteristics will promote our understanding of patterns of adjustment across these interconnected domains. Using a sample of victim groups identified in a previous study (Dawes et al., 2017), we compared groups on teacher ratings

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of academic adjustment (i.e., academic competence and engagement), social adjustment (i.e., whether they are popular, liked by peers, or classroom leaders), behavioral adjustment (i.e., aggressive and affiliative behavior), psychological adjustment (i.e., internalizing behavior), and lastly, teacher ratings of how often victim groups were bullied or bullied other peers. Understanding how teachers perceive different types of victims may yield important information that teachers can use in their day-to-day decisions for instruction and classroom management in ways that address students' particular victimization risks and help shape the classroom context to reduce students' victimization experiences.

Self- and Peer-Identified Victims

Researchers examining the convergence of self- and peer-reports of victimization have identified four distinct victim groups: (1) Youth high in self- and peer-reports of victimization are considered *convergent victims*; (2) youth with high peer-reports but low self-reports are *peer-identified victims*; (3) youth with low peer-reports but high self-reports are *self-identified victims*; and (4) those with low self- and peer-reports are identified as *nonvictims* (Dawes et al., 2017; Graham & Juvonen, 1998; Graham, Bellmore, & Juvonen, 2003; Scholte et al., 2013). Meaningful differences have been found between these victim groups on a number of indices including their loneliness, social anxiety, self-blame, peer acceptance and rejection, their perceptions of peer norms for bullying and academic engagement, and their sense of school belonging, to name a few (Dawes et al., 2017; Graham & Juvonen, 1998; Graham et al., 2003; Scholte et al., 2013).

For instance, youth with peer reputations for victimization (i.e., convergent victims and peer-identified victims) tend to resemble one another on indices of social adjustment such as having lower levels of peer acceptance, higher levels of peer rejection, and lower numbers of reciprocal friends compared to nonvictims and self-identified victims (Graham & Juvonen, 1998; Scholte et al., 2013). Yet, convergent and peer-identified victims differ meaningfully on indices of psychological and school adjustment. Specifically, it has been shown that convergent victims report more loneliness, more social anxiety, more depressive symptoms, lower self-esteem, and lower valuing for school (i.e., belief that school is important) compared to peer-identified victims (Dawes et al., 2017; Graham & Juvonen, 1998; Graham et al., 2003; Scholte et al., 2013). This suggests that although these two groups share similar social adjustment profiles (e.g., low peer acceptance; Scholte et al., 2013) and may therefore benefit from similar social interventions, the two groups likely need different types of support for their divergent psychological problems and perceptions of the value of school in their lives.

Similarly, self-identified victims tend to resemble nonvictims on indices of social adjustment: both are similar in terms of peer acceptance (Graham et al., 2003; Scholte et al., 2013), but there are crucial differences in other adjustment indices that likely necessitate different types of support. For example, self-identified victims report lower self-esteem and higher feelings of loneliness and social anxiety compared to nonvictims (Graham et al., 2003; Graham & Juvonen, 1998; Scholte et al., 2013). Self-identified victims also perceive greater emotional riskiness for participating in class compared to nonvictims (Dawes et al., 2017), a perception which may hinder engagement in class and jeopardize academic performance (Furrer & Skinner, 2003). Knowing that these victim groups have different adjustment configurations that may require distinct types of support prompted us to question how teachers view these victim groups as they interact with them on a daily basis.

Teachers' Perceptions of Victim Groups

Our central research question was whether teachers perceived differences in the academic, social, behavioral, and psychological adjustments of these different victim groups. We choose to examine a broad spectrum of adjustment indices to reflect the holistic view of students' development within the school context. Understanding how teachers perceive these youth is also a necessary starting point in our efforts to modify existing supports for each victim's unique configuration of risks. In addition, as these victimization experiences occur as part of peer relations within the social setting at school (e.g., peer ecology, Gest & Rodkin, 2011), understanding characteristics of these victim groups may also contribute to teachers' overall awareness of and management of the social dynamics in the classroom as a means to foster positive outcomes for all students, not just those being victimized (Farmer et al., 2011; Hendrickx et al., 2017; Gest & Rodkin, 2011; Wentzel, 2002).

Academic Adjustment

We examined two indices of academic adjustment: academic competence (i.e., good at spelling, good at math) and paying attention in class to capture teachers' perceptions of students' achievement and behavioral engagement. A growing body of empirical research has drawn associations between victimization and academic adjustment; however, the strength of this association can vary depending on the informant (Nakamoto & Schwartz, 2010). Graham and colleagues (2003) found that convergent victims and peer-identified victims had lower academic achievement (i.e., grade point average, GPA) and were seen by teachers to be less academically engaged compared to self-identified victims and nonvictims. Similarly, Nakamoto and Schwartz

(2010) found stronger associations between victimization and academic achievement among peer-identified victims than self-identified victims. We expected similar patterns to emerge in this study.

Social Adjustment

Peers serve as a powerful context for development (e.g., Bukowski et al., 2011; Gest & Rodkin, 2011), and much work has been devoted to understanding how peer social dynamics (e.g., students' reputations, status, peer groups) contribute to or hinder positive outcomes (e.g., Farmer et al., 2018). A key component of students' social experiences is their position in the social status hierarchy (e.g., Cillessen & Rose, 2005). In this study, we focused on three indices of social positions on the hierarchy: popularity, peer acceptance (i.e., likeability), and leadership role in the classroom. There is considerable overlap between these constructs in later childhood according to peer-reports (i.e., youth who are popular tend to also be well-liked), but it is important to note that they are not mutually exclusive (e.g., Parkhurst & Hopmeyer, 1998; Cillessen & Rose, 2005). It remains to be seen whether teachers distinguish between these indicators of social status. Consolidating evidence across studies specific to the victim groups under investigation suggests that peer-reports of acceptance parallel teacher-reports of popularity: Convergent and peer-identified victims have lower peer acceptance (according to peer-reports) and lower popularity (according to teacher-reports) compared to self-identified victims and nonvictims (Graham et al., 2003; Scholte et al., 2013). Based on this research, we expected to find similar patterns among the status indicators we assessed in this study.

Behavioral Adjustment

We also examined victim group differences in teacher-reported aggressive behavior and prosocial behavior (i.e., affiliation). For aggressive behavior, we expected to find similar results as Graham et al. (2003) that teachers would perceive convergent and peer-identified victims as more aggressive compared to self-identified victims and nonvictims. To date and to our knowledge, no research has compared students on teacher ratings of affiliative behavior (i.e., smiling, being friendly). It is likely that patterns for affiliation would follow patterns for teacher ratings of aggression. According to the halo effect (Thorndike, 1920), individuals have a cognitive bias to perceive a specific attribute as positive when global evaluations of a person are likewise positive (see also Nisbett & Wilson, 1977). Applied to students, if a student is seen as aggressive, the teacher may be biased to see that student as less prosocial as well.

Psychological Adjustment

A troubling finding from prior research is that teachers perceived no significant differences in victim groups' internalizing behavior (Graham et al., 2003), even though youth themselves self-report meaningful differences (Graham & Juvonen, 1998; Scholte et al., 2013). The nature of internalizing behavior likely makes it difficult for teachers to detect differences; yet, we predicted that teachers in the current study would perceive differences among victim groups. Our reasoning lies in a key sample difference between the two studies: This current study took place in self-contained 5th grade classrooms, whereas Graham et al.'s (2003) sample included middle school (6th grade) students. Increased frequency of interaction in self-contained classrooms may offer greater opportunity for 5th grade teachers to observe and detect students' internalizing behavior as compared to a middle school setting where students may be transitioning between different classrooms and teachers (Eccles & Midgley, 1989). Thus, teachers' view of students' internalizing problems may more closely align students' self-reports in our younger sample.

Bullying Involvement

The impetus for asking teachers to directly rate students' bullying involvement was to tease apart differences in perceptions of aggression (e.g., fighting) versus bullying which are overlapping but distinct forms of behavior. Bullying is a repeated, goal-directed form of aggressive behavior involving a power imbalance between the perpetrator and victim that is aimed at inflicting physical, psychological, educational, or social harms to its target (e.g., Olweus, 1994; Gladden, Vivolo-Kantor, Hamburger, & Kumpkin, 2014). Accumulating research suggests that teachers are often unaware of or underestimate the extent to which their students are involved in bullying (e.g., Gladden et al., 2014). Yet, teachers have a primary role in managing and reducing victimization for their students (e.g., Yoon & Bauman, 2014). A critical starting point therefore is understanding whether teachers perceive differences in victim groups' bullying involvement. Given the aforementioned evidence suggesting teachers struggle to identify bullying, we expected teacher perceptions of bullying involvement (either as one who bullies or who is bullied) for victim groups to follow patterns for aggressive behavior.

Current Study and Hypotheses

We compared teachers' perceptions of victim groups identified in a previous study (Dawes et al., 2017) on the following indices: *academic* (academic competence and engagement), *social* (popularity, liked by peers, classroom leader),

behavioral (aggressive, affiliative), *psychological* (internalizing), and *bullying involvement* (bullied by peers, bullies peers). Of the variables under examination, teacher-reports on indices of academic, social, behavior, and psychological adjustment have been previously assessed, but only in one study (Graham et al., 2003), and the need for replication is twofold. First, the prior study utilized cutoff points to identify victim groups, whereas the current study used a sample of victim groups identified in a previous study using latent profile analysis (LPA; Dawes et al., 2017), and it is crucial to compare whether patterns differ depending on the methodology. The benefits of using LPA over cutoff scores have been enumerated in several studies assessing youths' involvement in victimization and aggression such as its ability to estimate mutually exclusive latent classes which can yield unique types of victims beyond the traditional subgroups of victims versus nonvictims (e.g., Bettencourt & Farrell, 2013; Giang & Graham, 2008). Second, there is a key sample difference: Our study's sample was from 5th grade classrooms, whereas the sample in Graham and colleagues' (2003) study consisted of middle school students in 6th grade and there may be differences in elementary and middle school teachers' perceptions of victim groups. As we previously suggested, teachers in self-contained classrooms may be better able to detect differences in students' adjustment given the increased frequency of interaction as compared to teachers who see multiple groups of students as they transition between different classrooms in a middle school setting (Eccles & Midgley, 1989). Additionally, we sought to expand our investigation to include teachers' perceptions of students' involvement in bullying to better understand whether teachers are aware of (i.e., attuned to) their students' victimization experiences which is suggested to be a critical first step toward helping victimized youth (e.g., Hamm, Farmer, Dadisman, Gravelle, & Murray, 2011; Norwalk, Hamm, Farmer, & Barnes, 2016).

We developed our hypotheses based on prior research. We expected teachers to view convergent and peer-identified victims as less academically competent (Hypothesis 1 or H1) and less academically engaged (H2); less popular (H3), less well-liked (H4), and less likely to be classrooms leaders (H5), more aggressive (H6), less prosocial (H7), more likely to have internalizing problems (H8), and more likely to bully peers (H9) and be bullied by peers (H10) compared to self-identified victims and nonvictims.

Method

The current study was part of a larger study (Project REAL: Rural Early Adolescent Learning) that utilized a cluster randomized trial design to examine the effects of the SEALS intervention program (Farmer et al., 2013; Hamm, Farmer,

Lambert, & Gravelle, 2014). Matched pairs of schools were recruited for participation and randomly assigned to either the control or intervention condition. The current study utilized data from the pre-intervention time point when students were in 5th grade classrooms.

Participants

Students

Students were recruited from regular 5th grade education classrooms. A total of 1360 students (52.8% girls) in 106 classrooms were included in the current study which consisted of students (1) with parental consent, (2) who were in classrooms with participation rates of 50% or more, and (3) who were not missing data on self-reported victimization. We excluded youth from classrooms with less than 50% participation rates given concerns about reliability of peer nominations at low rates of participation (Marks, Babcock, Cillessen, & Crick, 2013). Students' on average were 11–12 years old. The racial and ethnic breakdown of students was 53.1% ethnic majority (i.e., Caucasian) and 46.9% ethnic minority (e.g., African-American, Hispanic, Asian).

Teachers

Within participating schools, all teachers of 5th grade classrooms were invited to participate in the study. The majority of teachers consented to participate, yielding a participation rate of 97%, comprised of mostly female (81.1%) and Caucasian (61.1%) teachers followed by 31.7% African-American, 4.8% Hispanic, and 2.4% Asian. Almost half of the teacher had masters degrees (48%), 39.4% completed some graduate work, 11.8% completed 4-year colleges, and a few completed their doctoral degree (0.8%). Most teachers were certified (96%), and a high percentage of teachers were certified in the area they were teaching (95.2%). In terms of teacher age, 41.7% were over the age of 45, 27.6% were 26–35 years old, 22% were 36–45 years old, and 8.7% were between the ages of 22 and 25. Forty-five percent of teachers had 10 years or less of experience, 30.6% had 21 or more years of experience, and 24.4% of teachers had 11–20 years of experience.

Procedure

Following approval from the Institutional Review Board, students were recruited from participating schools. For students wishing to participate, parental informed consent was required. Data collection occurred during group administered survey sessions, and only children with consent participated in the survey sessions. A trained research assistant read aloud questions during the session. Research

assistants monitored student participants and were available to answer any questions. Student participants were assured of confidentiality and told they could stop participating at any time. Students were given a school supply item for their participation.

Teachers of participating students were asked to participate. Teachers who consented to participate completed survey packets about each of the participating students in their classrooms. These survey packets asked teachers for their individual assessments of their students' interpersonal and academic competencies. Teachers received financial compensation for their participation. Data collection for both students and teachers occurred on similar schedules during the spring semester of 5th grade.

Measures

Victimization

Self-reported victimization was measured with the item: "How often have you been bullied since school started?" Student responses were 1 = *never*, 2 = *one or more times a month*, 3 = *one or more times a week*, and 4 = *one or more times a day* ($M = 1.93$, $SD = 1.18$). *Peer-reported victimization* was assessed via an established peer nomination protocol where participants nominate from free recall up to three peers who best fit certain behavioral and status descriptors (e.g., Estell, Farmer, & Cairns, 2007). For the present study, nominations for "picked on" were used. Nominations were summed and divided by the total number of nominators then standardized by classroom per established procedure (e.g., Estell et al., 2007; Rodkin, Farmer, Pearl, & Van Acker, 2000). A three-week test–retest yielded high reliability for peer nomination items, ranging from .72 to .93 (Farmer, Rodkin, Pearl, & Van Acker, 1999).

Student Characteristics

Teachers rated participating students' interpersonal and academic competences using the Interpersonal Competence Scale—Teacher report (ICS-T; Cairns et al., 1995) and rated students' social and academic adaptation using the Teacher Assessment Measure (TASS) developed by Estell, Farmer, and Cairns (2007). Both measures use 7-point Likert-type scales ranging from "never" to "always" for the ICS-T and "never" to "frequently" for the TASS. The ICS-T has moderately high test–test reliability (i.e., .80–.92) and convergent validity with student records, direct observations, and peer nominations (see Cairns & Cairns, 1994; Cairns et al., 1995; Rodkin et al., 2000). The TASS has demonstrated high test–retest reliability (range .60 to .93; see Farmer et al., 2003, 2009).

Indices for *academic adjustment* included the ICS-T factor score for academic competence ("good at spelling" and "good at math"; $\alpha = .81$) and the TASS item "problems paying attention." *Social adjustment* indices included the ICS-T popularity factor score ("popular with boys," "popular with girls," and "lots of friends"; $\alpha = .83$) and the TASS item "class leader" plus an additional item "liked by peers" which was added to the original TASS measure in Project REAL. Indices for *behavioral adjustment* included the ICS-T aggressive behavior factor ("argues," "gets in trouble," and "fights"; $\alpha = .84$) and affiliation factor ("smiles" and "friendly"; $\alpha = .71$). To assess *psychological adjustment*, the ICS-T internalizing factor ("very shy," "always sad," and "always worries"; $\alpha = .60$) was used. Lastly, teachers' perceptions of students' *involvement in bullying* were assessed with two items from the TASS: "bullied by peers" and "bullies peers." Factors from the ICS-T and the TASS items were standardized by classroom to allow for comparisons across classrooms of different sizes (e.g., Rodkin et al., 2000).

Analytic Plan

Victim groups were identified in a previous study (see Dawes et al., 2017). To review, we identified victim groups using latent profile analysis (LPA; see Lanza & Cooper, 2016) with the *Mplus* software program (Muthén & Muthén, 2015). LPA uses response patterns of continuous variables to estimate mutually exclusive groups with unique response patterns and assigns individuals to groups based on those patterns (McCutcheon, 1987). Several studies assessing subgroups of youth based on their levels of victimization and aggression involvement have outlined the benefits of using LPA over cutoff scores (e.g., Bettencourt & Farrell, 2013; Giang & Graham, 2008). Multiple indices were used to identify the optimal number of classes including log-likelihood ratio, Akaike information criterion (AIC), Bayesian information criterion (BIC), and adjusted BIC. Smaller values of these indices indicate better fit to the data (Nylund, Asparouhov, & Muthén, 2007). We used additional fit indices including the adjusted Lo–Mendell–Rubin likelihood ratio test (ALMR) and the Vuong–Lo–Mendell–Rubin likelihood ratio test (VLMR) which both compare relative model fit between a model with k classes and a model with $k-1$ classes. Support for a k model over the $k-1$ model is indicated by a p value of less than .05. Entropy and individual class probabilities also provide support for the optimal number of classes. Higher values of entropy (ranging from 0 to 1) indicate better classification accuracy, and higher individual class probabilities indicate that classes include homogeneous individuals.

Once victim groups were identified, multilevel mixed-effects linear regression was used to examine differences in teachers' perceptions of victim groups using maximum

likelihood estimation. Multilevel modeling allowed us to control for the nested nature of the data (i.e., students nested in classrooms). In building our model, we included relevant controls and then victim group membership information. Post multilevel model estimation, we calculated adjusted means to account for covariates.

We controlled for gender (0 = girls; 1 = boys) and ethnic minority/majority status (0 = majority ethnic status; 1 = minority ethnic status) in all analyses for a number of reasons. First, prior research found gender differences in victim group membership (Graham et al., 2003). Boys were more likely to be convergent victims and peer-identified victims compared to girls who were more likely to be identified as nonvictims or self-identified victims (Graham et al., 2003). Second, teachers may have cognitive biases for gender and ethnic differences in key characteristics (e.g., perceiving girls as more affiliative, perceiving minority boys as more aggressive; “self-fulfilling prophecy,” see Rosenthal, 1994) and as the focus of the study was specifically on victim groups, we wanted to assess teacher perceptions accounting for the effects of gender and ethnic background.

Results

Descriptive Statistics

To examine the associations between both measures of victimization, self- and peer-report, and the teacher-reported variables, we conducted zero-order correlations for all study variables (see Table 1). Self-reported victimization and peer-reported victimization were significantly, if moderately, correlated, $r = .16, p < .001$. Self-reported victimization was positively associated with teacher-reported victimization ($r = .13, p < .001$) and teacher ratings of internalizing behavior ($r = .12, p < .001$), but negatively correlated with teacher ratings of popularity, peer liking, and being a class leader ($r_s > -.06, p_s < .05$). Peer-reported victimization was positively associated with teacher-reported victimization ($r = .45, p < .001$). Additionally, peer-reported victimization was positively associated with teacher-reported bullying behavior, problems paying attention, and internalizing behavior ($r_s > .11, p_s < .001$). Lastly, peer-reported victimization was negatively associated with teacher-reported popularity, peer liking, and being a class leader, $r_s > -.27, p_s < .001$.

Victim Groups

The number of profiles identified in the Dawes et al. (2017) study was guided by theory, prior empirical research on victim groups, and comparison of fit indices from the LPA models. After testing three- to five-class solutions, the four-class solution was identified as the best fit. Fit indices

Table 1 Correlations among study variables

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Gender	—													
2. Minority	-.03	—												
3. Victimization (SR)	-.02	-.10***	—											
4. Victimization (PR)	.06*	-.04	.16***	—										
5. Academic competence	-.16***	.02	-.01	-.22***	—									
6. Problems paying attention	.27***	.00	.01	.22***	-.61***	—								
7. Popularity	-.06*	.04	-.10***	-.46***	.37***	-.36***	—							
8. Liked by peers	-.10***	.02	-.09**	-.47***	.41***	-.47***	.71***	—						
9. Class leader	-.07*	.03	-.06*	-.27***	.55***	-.48***	.56***	.50***	—					
10. Aggression	.29***	.06*	.03	.15***	-.28***	.52***	-.22***	-.46***	-.16***	—				
11. Affiliation	-.12***	-.02	.00	-.20***	.28***	-.39***	.46***	.51***	.37***	-.42***	—			
12. Internalizing	-.10***	-.02	.12***	.23***	-.28***	.14***	-.46***	-.30***	-.43***	-.11***	-.34***	—		
13. Bullied by peers	.11***	.01	.13***	.45***	-.29***	.31***	-.51***	-.52***	-.36***	.26**	-.25***	.33***	—	
14. Bullies peers	.20***	.04	.00	.11***	-.20***	.42***	-.19***	-.41***	-.11***	.74***	-.37***	-.10***	.18***	—

Gender reference group = girls. SR self-report; PR peer-report. All other variables are teacher-reported
 * $p < .05$, ** $p < .01$, *** $p < .001$

improved in the four-class model compared to the three-class model, particularly the ALMR and VLMR which indicated the four-class solution fit the model better than the three-class solution (see Table 2). The addition of a fifth class did improve model fit according to the ALMR and VLMR, but the addition of the fifth class was difficult to interpret and inconsistent with prior research and theory, specifically a fifth class that combined students who would be considered victims and nonvictims according to their self-reports (i.e., those who self-reported victimization frequency both above and below the recommended threshold of *two or three times a month* to be considered a victim; Solberg & Olweus, 2003). As such, the four-class model was determined to be the best fit in the Dawes et al. (2017) study and, hence, used in the current study to investigate differences in teachers' perceptions across the four victim groups. Support for the four-class model was also found in the overall entropy value of .98 and individual class probabilities of .92 and above (Williford, Brisson, Bender, Jenson, & Forrest-Bank, 2011; see Dawes et al., 2017 for additional discussion). The four-class model yielded the following groups similar to prior research (e.g., Scholte et al., 2013): (1) *Convergent victims* ($n=49$) had high scores on self-reported victimization (SRV; $M=3.73$) and peer-reported victimization (PRV; $M=2.52$); (2) *peer-identified victims* ($n=109$) had low SRV ($M=1.67$) but high PRV ($M=2.40$); (3) *self-identified victims* ($n=352$) had high SRV ($M=3.61$) but low PRV ($M=-0.13$); and lastly (4) *nonvictims* ($n=850$) had low SRV and PRV ($M_s=1.16, -0.27$, respectively).

Teachers' Perceptions

To assess teachers' perceptions of victim groups, we estimated a series of three multilevel models for each outcome where Level 1 represented students and Level 2 represented classrooms. The series of models allowed us to change which victim group served as the reference group in order to test our hypotheses for differences between each victim group. Multiple comparisons were accounted for using a Holm–Bonferroni adjustment (Abdi, 2010; Holm, 1979). As all variables were standardized by classroom, we did not expect (and did not find) significant variance between classrooms on any dependent variable (variance components = .00, $\chi^2_s > 23.49, p < .001$). We found significant victim group differences in all teacher-reported variables, after controlling for students' gender and ethnic status. Estimated means adjusted for controls after model estimation are listed in Table 3.

Victim groups differed in teacher ratings of academic competence and engagement. Teachers perceived nonvictims and self-identified victims to have higher academic competence than both convergent and peer-identified victims, $ps < .001$ (H1). A similar pattern was found for teacher ratings of students' problems paying attention: Teachers perceived nonvictims and self-identified victims to have fewer problems paying attention than both convergent victims and peer-identified victims, $ps < .001$ (H2). Interestingly, teachers perceived that convergent victims

Table 2 Model fit indices for latent profile analyses and descriptive statistics for three- to five-class solutions

Number of classes	Log-likelihood	AIC	BIC	Adjusted BIC	ALMR <i>p</i> value	VLMR <i>p</i> value
3	– 3308.05	6636.09	6688.25	6656.48	.000	.000
4	– 3149.84	6325.69	6393.49	6352.19	.000	.000
5	– 2983.61	5999.23	6082.67	6031.85	.000	.001
	Three-class solution		Four-class solution		Five-class solution	
	<i>n</i> (%)	<i>M</i> (SD)	<i>n</i> (%)	<i>M</i> (SD)	<i>n</i> (%)	<i>M</i> (SD)
Class 1	252 (18.5)	4.00 (0.00) _{sr} 0.18 (1.09) _{pr}	352 (25.9)	3.61 (0.49) _{sr} – 0.13 (0.55) _{pr}	280 (20.6)	2.49 (0.50) _{sr} – 0.05 (0.57) _{pr}
Class 2	362 (26.6)	1.00 (0.00) _{sr} – 0.19 (0.73) _{pr}	49 (3.6)	3.73 (0.45) _{sr} 2.52 (0.76) _{pr}	88 (6.5)	1.78 (0.41) _{sr} 2.61 (0.91) _{pr}
Class 3	746 (54.9)	2.41 (0.49) _{sr} 0.55 (1.28) _{pr}	850 (62.5)	1.16 (0.37) _{sr} – 0.27 (0.47) _{pr}	727 (53.4)	1.00 (0.00) _{sr} – 0.27 (0.53) _{pr}
Class 4			109 (8.2)	1.67 (0.47) _{sr} 2.40 (0.93) _{pr}	220 (16.2)	4.00 (0.00) _{sr} – 0.16 (0.57) _{pr}
Class 5					45 (3.3)	3.71 (0.46) _{sr} 2.61 (0.72) _{pr}

SR self-reported victimization. PR peer-reported victimization. The five-class solution created a class (class 1) that combined those who would be considered victims and nonvictims using the recommended frequency threshold of *two or three times a month* to be considered a victim. Therefore, the four-class solution was determined to be the best fit for the data (LPA originally performed and reported in Dawes et al., 2017)

Table 3 Predicted adjusted means by victim group for teacher perceptions from multilevel mixed-effects linear regression analyses

	Convergent victims <i>M</i> (SE)	Self-identified victims <i>M</i> (SE)	Peer-identified victims <i>M</i> (SE)	Nonvictims <i>M</i> (SE)
<i>Academic</i>				
Academic competence	−0.61 (0.14) _b	0.14 (0.05) _a	−0.37 (0.09) _b	0.06 (0.03) _a
Problems paying attention	0.67 (0.13) _a	−0.14 (0.05) _c	0.26 (0.09) _b	−0.05 (0.03) _c
<i>Social</i>				
Popularity	−0.94 (0.13) _b	0.06 (0.05) _a	−1.00 (0.09) _b	0.17 (0.03) _a
Liked by peers	−1.01 (0.13) _b	0.08 (0.05) _a	−0.99 (0.09) _b	0.17 (0.03) _a
Class leader	−0.68 (0.14) _b	0.06 (0.05) _a	−0.49 (0.09) _b	0.10 (0.03) _a
<i>Behavioral</i>				
Aggression	0.32 (0.14) _a	−0.01 (0.05) _{a, b}	0.21 (0.09) _a	−0.05 (0.03) _b
Affiliation	−0.41 (0.14) _b	0.12 (0.05) _a	−0.40 (0.09) _b	0.04 (0.03) _a
<i>Psychological</i>				
Internalizing	0.50 (0.14) _a	0.08 (0.05) _b	0.41 (0.09) _a	−0.12 (0.03) _c
<i>Bullying involvement</i>				
Bullied by peers	1.21 (0.13) _a	−0.03 (0.05) _c	0.84 (0.09) _b	−0.18 (0.03) _d
Bullies peers	0.05 (0.14) _a	0.00 (0.05) _a	0.21 (0.09) _a	−0.03 (0.03) _a

All models controlling for gender and ethnic status. Adjusted means with different subscripts are significantly different using Holm–Bonferroni adjusted *p* values for multiple comparisons

also had more problems paying attention compared to peer-identified victims, $p = .011$.

In terms of social adjustment, teachers perceived nonvictims and self-identified victims to have higher popularity, to be better liked by peers, and to be class leaders more frequently compared to convergent and peer-identified victims, $ps < .002$ (H3, H4, H5). As for behavioral adjustment, teachers rated convergent victims and peer-identified as more aggressive than nonvictims ($ps < .009$, H6) and less friendly compared to both self-identified victims and nonvictims, $ps < .002$ (H7).

As expected, teachers also perceived differences in victim groups' internalizing problems (H8). Teachers viewed convergent and peer-identified victims as having greater internalizing problems such as being sad and worried compared to both nonvictims and self-identified victims, $ps < .005$. Teachers perceived no differences in internalizing problems between convergent victims and peer-identified victims ($p = .579$), but they did rate self-identified victims as having more internalizing problems compared to nonvictims ($p = .001$).

There were no significant differences in teacher-reports of how frequently victim groups bullied peers (H9). However, teacher rating of how frequently students were bullied by peers was the one teacher-reported variable that was significantly different across all four victim groups (H10). Convergent victims were more frequently bullied by peers compared to all other victim groups, $ps < .015$. Next, teachers rated peer-identified victims as being more frequently bullied compared to both self-identified victims

and nonvictims, $ps < .001$. Lastly, teachers perceived self-identified victims to be more frequently bullied than nonvictims, $p = .009$.

Discussion

We investigated whether teachers perceived differences in victim groups' key characteristics representing broad domains of adjustment at school. In general, teachers viewed convergent and peer-identified victims similarly: These youth were seen as less academically competent, less popular, less well-liked by peers, less likely to be classroom leaders, less friendly, more aggressive, and more likely to struggle with internalizing problems when compared to self-identified victims and nonvictims. Key differences include teachers' perceptions that convergent victims had more problems paying attention in class and were more frequently bullied by peers compared to all other victim groups. Teachers also viewed self-identified victims and nonvictims similarly with notable exceptions being internalizing problems and bullying: Teachers perceived self-identified victims as having more internalizing problems and being more frequently bullied by peers compared to nonvictims. These findings supply useful information that will be beneficial to future efforts to identify these different victim groups in order to provide supports modified to address each victim's unique adjustment challenges.

Teachers' Perceptions of Victim Groups

Academic Adjustment

Teachers viewed convergent and peer-identified victims as less academically competent compared to self-identified victims and nonvictims. This finding was in line with our expectations and aligns with patterns found in a previous study for students' GPAs (Graham et al., 2003). Combined, these results suggest that these two victim groups (convergent and peer-identified victims) are struggling academically. Where our results differ from previous research is in students' academic engagement, more specifically whether teachers perceived differences in students' problems paying attention. Convergent victims were seen by teachers to struggle the most with paying attention, followed by peer-identified victims, and finally self-identified victims and nonvictims (who did not differ significantly from each other). One possible explanation for the difference between convergent and peer-identified victims' problems paying attention may be the frequency of victimization. Both groups were seen as victims by peers, that is, they had peer reputations for victimization. But only convergent victims self-reported frequent victimization at the level of *one or more times a week* to *one or more times a day*. Frequently experiencing victimization can cause emotional distress which can have a deleterious effect on students' cognitive capacity to pay attention and concentrate on learning (Buhs & Ladd, 2001; Ladd, Ettekal, & Kochenderfer-Ladd, 2017; Schwartz et al., 2005). This collective research suggests that before any progress can be made on improving convergent victims' academic adjustment, their victimization experiences must be addressed. The fact that the pattern of teachers' perceptions differed depending on the academic characteristic (i.e., academic competence, problems paying attention) underscores the notion that academic adjustment is a multifaceted variable. It will be useful for future examinations to continue to include multiple indicators of student's academic adjustment to capture nuances in how students are functioning academically.

Social Adjustment

As learning occurs within a social context (e.g., Wentzel, 2009), a vital component of students' adjustment at school is their social position in the peer ecology (e.g., Cillessen & Rose, 2005). We found that teachers viewed nonvictims and self-identified victims as more popular, more well-liked by peers, and more likely to be classroom leaders compared to convergent and peer-identified victims. These results suggest that these indicators of social status in 5th grade classrooms are viewed similarly by teachers. Perhaps as these indicators of social status diverge in later adolescence (e.g., Cillessen

& Rose, 2005; Parkhurst & Hopmeyer, 1998) teachers may differentiate between victims who are popular but not well-liked or vice versa. These results further suggest that having teachers reflect on their students' social positions may not be sensitive enough to help teachers distinguish between convergent and peer-identified victims nor between self-identified victims and nonvictims, hence the need to consider an array of indices across multiple domains of adjustment.

Behavioral Adjustment

Our results indicate that teachers view convergent and peer-identified victims as more aggressive compared to nonvictims and less friendly compared to nonvictims and self-identified victims. This means that youth with victim reputations, regardless of their self-reported victimization, were viewed as students who argue, get in trouble, and/or fight. We wish to emphasize that not all victims are aggressive and not all aggressive youth are victims. Yet it is revealing that teachers in this study viewed both convergent and peer-identified victims as more aggressive than nonvictims. A recent study found a similar trend: Separate groups of victimized students and aggressive students could be identified from peer-reports, whereas teachers only saw one profile of aggressive–victimized students (Bettencourt, Musci, Clemans, Carinci, & Ialongo, 2017). This leads us to conclude that either (a) there is a cognitive bias from teachers to view victimized youth as aggressive or (b) convergent and peer-identified victims are also seen by peers to be more aggressive compared to self-identified victims and nonvictims. More research is needed to clarify this point, and future work should look at both peer-reports and self-reports of aggressive behavior to triangulate different perceptions.

Psychological Adjustment

Our expectations for teachers' perceptions of victim groups' internalizing problems were partially supported in that teachers *did* perceive differences, but these differences did not align completely with findings on students' self-reported internalizing problems (Graham & Juvonen, 1998; Scholte et al., 2013). Teachers saw no difference in convergent and peer-identified victims' internalizing problems despite prior research suggesting that convergent victims suffer from internalizing problems more so than peer-identified victims (Graham & Juvonen, 1998; Scholte et al., 2013). However, teachers did perceive differences between self-identified victims and nonvictims, which differs from the finding by Graham and colleagues (2003). Compared to a middle school teacher, the teacher of a self-contained 5th grade classroom may have more opportunities to observe students' internalizing problems (e.g., being sad, worrying). We consider it a positive sign

that some victims may receive support given that teachers perceived differences in students' internalizing problems. Yet this optimism must be tempered by reports that a large percentage of youth with internalizing problems go unnoticed by their teachers (e.g., those at risk of anxiety and depression; Cunningham & Suldo, 2014) and few receive treatment (e.g., treatment for anxiety disorder, Merikangas et al., 2011). The developmental consequences of internalizing problems in elementary school students are worth noting (developmental cascades, Masten & Cicchetti, 2010) as they can develop into psychological disorders (e.g., anxiety, depression) which can compromise students' ability to adjust socially and academically in school (Duchesne, Vitaro, Larose, & Tremblay, 2008). This vulnerability may be exacerbated by the significant changes that occur for youth who transition to middle school environments where developmental needs may not be sufficiently met (Eccles & Midgley, 1989; Eccles et al., 1993). As schools are typically the primary deliverer of mental health services, teachers and related school personnel are on the frontlines of efforts to identify youth who need support.

Bullying Involvement

Frequency of victimization was the sole characteristic on which teachers distinguished between all four victim groups. Teachers perceived convergent victims as the most frequently bullied by peers, and nonvictims as the least frequently bullied. As a proxy for teacher's attunement to victimization, this finding represents a promising sign that teachers may be picking up on the nuances of victimization. Researchers have long contended that adult awareness is critical to the success of efforts to combat bullying in schools (e.g., Olweus, 1993; Yoon, 2004; Veenstra, Lindenberg, Huitsing, Sainio, & Salmivalli, 2014). However, teacher knowledge in and of itself is likely insufficient to address victimization. Other factors, such as teachers' beliefs and attitudes about bullying, their own history of victimization, their response to bullying when it occurs, and student–teacher relationships with aggressors and victims, can and do impact the experiences of victimized youth (e.g., Troop-Gordon, 2015; Yoon, Sulkowski, & Bauman, 2016). Nonetheless, attunement to victimization represents a critical, albeit insufficient on its own, form of teacher support. By understanding the victimization experiences of their students, teachers may be better able to manage the social dynamics of their classrooms in ways that create opportunities for victimized youth to form new friendships, mitigate status extremes that may foster aggression and bullying, and create a more positive social environment.

Summary

Teachers viewed similar levels of difficulty across multiple domains for both convergent victims and peer-identified victims. The only differences teachers perceived between these two groups were that convergent victims had more problems paying attention and were more frequently bullied by peers compared to peer-identified victims. Teachers also viewed self-identified victims and nonvictims similarly across multiple indices. The only differences teachers perceived between these two groups were that self-identified victims had more internalizing problems and were more frequently bullied by peers compared to nonvictims. Across all victim groups, the only significant difference found was for teachers' perceptions of how frequently each group was victimized.

Limitations and Future Directions

The results of this research should be interpreted in light of some limitations. First, the participants came from 5th grade classrooms in rural areas, which may limit the generalizability of the results to other grade levels and geographic areas. Future research should examine these research questions across a variety of contexts including middle and high school settings in metropolitan and urban areas. Second, teacher-reports of student adjustment outcomes were not corroborated by other methods such as self- or peer-reports or classroom observations. Future research should employ multiple methods for assessing student adjustment outcomes as they relate to ratings of victimization by different informants. Third, the victimization measures for both self- and peer-reports were assessed with a single item. Future research would benefit from using multi-item measures for both self- and peer-reports to strengthen the psychometric properties of both measures. However, we firmly believe our measures accurately reflect the phenomenon under investigation: victim groups who differ in their peer reputations for victimization and their self-reports of being frequently victimized. Fourth, the internal consistency for the measure of teacher-rated internalizing symptoms was on the lower end of the acceptable range. This may be due to the fact that items in the measure captured a symptom commonly associated with anxiety (i.e., worry) as well as a symptom associated with depression (i.e., sad). Research on children and adolescents suggests that for some youth these disorders can co-occur (Cummings, Caporino, & Kendall, 2014), but other youth may have symptoms of just one or the other. Future research should assess symptoms of both types of disorders as the results may have treatment implications depending on whether youth show symptoms of comorbid anxiety and depression or only display symptoms for one disorder (Cummings et al., 2014). Finally, the present study did not assess factors that may have impacted teachers' perceptions and

ratings of victims. Teachers' beliefs about victimization, the form of victimization (e.g., physical versus relational), feeling of self-efficacy, and teachers' own experience with victimization can all effect the role that teachers play in identifying and intervening in bullying (e.g., Troop-Gordon, 2015). It is important to consider these variables in future research as potential moderators of teachers' ability to identify victim groups.

Implications

Results from this study suggest that teachers do perceive some differences in victim groups' adjustment indices. This is promising news and has important implications for the identification of victimized youth in school settings. Effective intervention for victims is predicated on teachers' knowledge of bullying situations and awareness of which students are victimized. The current study highlights that when teachers are asked to fill out surveys about each of their students, they are able to identify youth who were bullied frequently to the extent that they could distinguish between these victim groups; however, teacher ratings of victimization were more closely aligned with peer-reports than self-reports. We found a stronger association between teacher-reports of victimization and peer-reports of victimization ($r = .45$) compared to the association between teacher-reports and self-reports ($r = .13$), Steiger's $Z = 8.981$, $p < .001$. As a proxy for teacher attunement to victimization, these results suggest that teachers' views and peers' views of victims align more strongly compared to teachers' views and self-views. This suggests that teachers may not be privy to all victimization experiences of their students, a valid concern that has been raised previously (e.g., Demaray, Malecki, Secord, & Lyell, 2013) and is the focus of recent efforts to increase teachers' awareness of these dynamics (e.g., Farmer et al., 2017, 2018; Gest, Madill, Zadzora, Miller, & Rodkin, 2014).

These results also have implications for how we assess victimization. We echo recommendations by those in the field that self-reports and peer-reports are essential to our understanding of victimization that occurs between peers because self-reports provide unique information about student's subjective experiences with victimization and peer-reports provide vital information about the social dynamic processes related to students' victim reputations (e.g., Farmer et al., 2018; Volk, Veenstra, & Espleage, 2017). Further, the divergence that comes from disagreement between informants is meaningful as indicated by research on self- and peer-identified victims which serves as a sobering reminder that even when all appears well (such as for self-identified victims), students may be silently suffering (Bouman et al., 2012; Graham & Juvonen, 1998; Graham et al., 2003; Scholte et al., 2013). That said, we reiterate the need to assess teachers' perspectives as their reports inform us

whether they are attuned to students' victim reputations or victimization experiences which is a critical first step in teachers' ability to support these youth and manage peer interactions in ways that promote positive outcomes (e.g., Hamm et al., 2011; Norwalk et al., 2016; Farmer et al., 2017, 2018).

The results of the present study also have implications for school-based intervention efforts that target victimization. Based on the teacher-identified adjustment profiles for each victim group, some areas may be better targeted with universal intervention strategies, whereas others may need more targeted efforts. For example, internalizing behavior problems emerged as an important target area for all victim groups. Universal strategies that create classroom and school environments in which all youth feel supported by teachers and classmates may help buffer the effects of victimization on internalizing problems (Davidson & Demaray, 2007). For convergent victims, targeted efforts that focus on increasing school valuing and attentiveness in class may be most helpful (Dawes et al., 2017). By being more knowledgeable about the social dynamics of their classrooms, teachers can employ a number of strategies such as seating convergent victims away from their bullies, pairing convergent victims with prosocial peers that can come to their aid, and maximizing instructional time. Each of these strategies may lessen anxiety for convergent victims, making it easier for them to focus on academic work. For peer-identified victims, intervention efforts should address not only victimization but also aggression, as these victims were rated by teachers as bullying others frequently. Bully-victims are particularly at risk of academic and psychological maladjustment (Veenstra et al., 2005). For both peer-identified and convergent victims, awareness of the social dynamics that contribute to peer reputations is key. Once established, peer reputations can be difficult to change, but there is evidence to suggest that teachers' attunement to peer social dynamics plays a role (Ahn & Rodkin, 2014). Finally, efforts geared toward self-identified victims can focus on increasing the likelihood that they will report incidences of bullying to teachers and other adults. Self-identified victims do not meet the typical profile of a victim (i.e., low status, disempowered youth), but there is increasing recognition that even socially well-adjusted youth can be victimized (e.g., Dawes & Malamut, 2018) and as evidenced in this current study and other research on victim groups, self-identified victims need support (Graham & Juvonen, 1998; Graham et al., 2003; Scholte et al., 2013).

Conclusion

Teachers can only be effective in mitigating the negative consequences associated with victimization insofar as they are aware of the nuances of students' peer victimization experiences. We found in this investigation that teachers

distinguished between victim groups on a few key characteristics. However, in many ways, teachers viewed these groups similarly, even though these youth self-report differences. This suggests the need for greater support for teachers to help them recognize different types of victims. Related school personnel (e.g., school psychologists) may be uniquely positioned to help teachers identify youth with divergent self- and peer-reports of victimization and can be part of larger efforts to utilize multi-informants to identify victimized youth to provide them with the individualized supports they need. In conclusion, we echo prior work that points to the critical importance of training teachers and school personnel in how to recognize victims and understand victimization as part of peer social dynamics.

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Compliance with Ethical Standards

Conflict of interest The authors declare that they have no conflict of interest.

Ethical Approval All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Declaration of Helsinki and its later amendments or comparable ethical standards.

Informed Consent Informed consent was obtained from all individual participants included in the study.

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