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Adolescent peer aggression judgments and expected bystander intervention in teen dating violence



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ABSTRACT

Instances of teen dating violence (TDV), like other forms of aggression, can involve both physical and social harm. This study (1) compares adolescent acceptability judgments and bystander expectations about a hypothetical TDV story to platonic physical aggression (PPA) and platonic social aggression (PSA) stories and (2) explores how individual, peer, and school climate factors relate to TDV bystander expectations. Adolescent participants (N=828, 50.8% female) were less accepting of and more likely to expect to intervene in PPA compared to TDV and PSA. Females were less accepting and more likely to expect to intervene across all stories compared to males. In the TDV story, less TDV acceptance and higher rates of empathy and positive student-teacher relationships were associated with greater intervention expectations, whereas those nominated as "popular" and "least liked" were less likely to expect to intervene. Implications for programing aimed at reducing TDV through bystander intervention are discussed.

Although dating during adolescence occurs less frequently in the United States than it did in prior decades, roughly one-third (35%) of American teens aged 13 to 17 having some experience with dating or romantic relationships (Child Trends, 2019; Lenhart, Anderson, & Smith, 2015). Research on adolescent cognition and experiences with teen dating violence (TDV) is especially important during this period, when individuals often engage in their first romantic experiences (Child Trends, 2019). TDV is a specific type of peer aggression in which a current or former romantic partner attempts to mentally, physically, and/or emotionally harm or control another (Centers for Disease Control and Prevention, 2020). TDV can take many forms, including physical violence, sexual violence, stalking, and psychological aggression (Centers for Disease Control and Prevention, 2020). Prior research suggests that the form of aggression involved in bullying and TDV matters, with youth being less accepting and more likely to intervene in scenarios involving physical aggression (Casey, Lindhorst, & Storer, 2017; Debnam & Mauer, 2019; Noonan & Charles, 2009). This is concerning given that estimates suggest that more adolescents (33%) experience nonphysical (mental and/or verbal) romantic abuse than physical dating violence (10-25%) (Coker et al., 2014). Although prior research using qualitative methods has provided some insight into how adolescent

judgments of and bystander intentions might differ when similar aggressive behaviors are directed towards romantic versus platonic peers (Casey et al., 2017; Casey, Storer, & Herrenkohl, 2018; Storer, Casey, & Herrenkohl, 2017), the topic has yet to be explored using quantitative methods. Doing so will provide further empirical support for the theoretical connection between bullying and dating violence within adolescence (Basile, Espelage, Rivers, McMahon, & Simon, 2009; Foshee et al., 2016).

TDV typically begins before the age of 18 and has serious long-term consequences (Centers for Disease Control and Prevention, 2020). Adolescent victims of TDV are more likely to experience symptoms of depression and anxiety, abuse alcohol and drugs, think about suicide, and are at a greater risk for intimate partner and sexual violence victimization and/or perpetration later in life (Centers for Disease Control and Prevention, 2020). Bystander intervention can help to reduce instances of TDV (Debnam & Mauer, 2019). Prior research has investigated individual, peer, and school climate predictors of bullying intervention broadly (Gönültaş et al., 2019; Mulvey et al., 2019; Mulvey et al., 2020) but much less is known about how these factors predict adolescent bystander responses to TDV in particular. Given that almost 28% of TDV occurs in schools, there is also a need to explore how school

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climate factors might shape bystander responses to TDV (Turner, Finkelhor, Hamby, Shattuck, & Ormrod, 2011). Therefore, the current study seeks to inform school-based programming aimed at reducing TDV through bystander intervention by (1) comparing adolescent acceptability judgments and bystander expectations to hypothetical stories involving physical and/or social aggression targeting romantic and platonic peers, and (2) exploring how individual factors, peer status, and school climate relate to TDV bystander expectations.

Bystander intervention in bullying and TDV contexts

Bullying involves repeated peer aggression that can take many different forms, including TDV. Peers can play a significant role in preventing incidents of bullying and TDV through bystander intervention (Coker et al., 2017). Bystander intervention refers broadly to responses that a witness may have when they observe someone being victimized. Findings suggest that bystanders can engage in behaviors that may support the victim (referred to as defending), but may also take on roles that do not interrupt the aggression and may even exacerbate it, including serving as assistants (those who actively and directly help the bully to victimize a target), reinforcers (who laugh at or simply witness the situation), and outsiders (who disengage or walk away from the group or place) (Salmivalli, Voeten, & Poskiparta, 2011). Prior research demonstrates that adolescent bystander intervention decreases bullying, victimization, and peer harassment (Kärnä et al., 2011; Olweus, 2001), and bullying tends to stop quickly if a bystander intervenes (Hawkins, Pepler, & Craig, 2001). Roughly half of all teen dating and sexual violence occurs in the presence of others (Molidor & Tolman, 1998), indicating that adolescents are often bystanders to instances of TDV involving peers (Banyard & Moynihan, 2011). Indeed, Edwards, Rodenhizer-Stämpfli, and Eckstein (2015) found that 93.6% of adolescent participants had the opportunity to intervene in at least one situation involving dating or sexual violence within the previous year and that most participants had opportunities to intervene in multiple types of TDV situations. Taken together, these findings suggest that adolescents have ample opportunities to act as bystanders when witnessing TDV among peers.

Peer aggression involved in bullying and TDV contexts shares common and unique features that influence the likelihood of bystander intervention. A qualitative study examining high school students' attitudes towards bystander intervention in bullying and TDV contexts, found that adolescents perceived more barriers than facilitators to bystander intervention especially in TDV contexts (Casey et al., 2017). For example, feeling a moral obligation to intervene and knowing the victim or perpetrator served as facilitators to bystander intervention in both bullying and TDV contexts (Casey et al., 2017). Noonan and Charles (2009) also used focused groups to find that middle school youth were less likely to intervene in TDV contexts involving people who were not their close friends. In TDV contexts, adolescents were more likely to intervene if the victim was female but teens also identified concerns about furthering the abuse, lacking the skills to identify abuse compared to typical relationship "drama", and needing training on how to effectively intervene as barriers to TDV intervention (Casey et al., 2017). Although prior research has explored some factors related to instances of bullying and TDV that facilitate or hinder bystander intervention, research has yet to explore the extent to which individuals' expected bystander intervention might differ between similar forms of peer aggression targeting platonic versus romantic peers.

Bystander intervention programing

Bystander intervention components in anti-bullying programs increase proactive bystander behavior in elementary and middle school students (Polanin, Espelage, & Pigott, 2012) but the research regarding high school programs and TDV prevention programs is less robust (Casey et al., 2017). Most empirically-reviewed dating and/or sexual

violence bystander intervention programs target college and adult populations rather than adolescents (Storer, Casey, & Herrenkohl, 2016). Several programs aimed at reducing rates of TDV focus on addressing risk factors and enhancing participants' action skills in response to dating aggression as bystanders; however, these programs show mixed results in shaping participants' willingness to intervene and utilization of bystander behaviors (Katz, Heisterkamp, & Fleming, 2011; Miller et al., 2012; Miller et al., 2013; Storer et al., 2016). For example, the Coaching Men into Boys program revealed small to moderate intervention effects at the three-month post-assessment, resulting in an increase in bystander intent and utilization, but no intervention effects one year later (Miller et al., 2012; Miller et al., 2013). The Mentors in Violence Program (MVP) revealed active and passive intervention effects whereby high school participants viewed partner aggression as more wrong than controls but only demonstrated an increased likelihood of intervening in overt physical aggression (Katz et al., 2011). The Bringing in the Bystander (BIB) program revealed long-term impacts in bystander readiness, but little impact on actual proactive and reactive behaviors (Edwards et al., 2019), and intervention effects were stronger for younger adolescents and heterosexual individuals (Waterman, Edwards, Banyard, & Chang, 2021). Widely known for its efficacy in college populations (Coker et al., 2014), the Green Dot program was modified and implemented in 26 Kentucky high schools over five years, revealing positive intervention effects in reducing sexual violence perpetration and other forms of interpersonal violence such as dating violence and victimization (Coker et al., 2017). However, programs often fall short when it comes to increasing prosocial bystander behaviors because most programs focus on changing individual factors while ignoring cognitive, situational, and environmental factors that differ across contexts and influence intervention (Casey & Ohler, 2012). Thus, increased attention to adolescent cognitive and social developmental patterns is needed to cater bystander intervention programs to appropriately target youth populations (Nation et al., 2003). Understanding (1) how adolescent social cognition surrounding similar forms of aggression might differ when targeting romantic versus platonic peers and (2) individual, peer, and school climate factors that promote intervention intentions will inform programs designed to encourage bystander responses to TDV.

Theoretical framework

The current study draws on the situational cognitive model of adolescent bystander behavior (Casey et al., 2017) to (1) compare adolescents' acceptability judgments and bystander expectations of similar forms of peer aggression targeting romantic partners and platonic peers and (2) examine individual, peer, and school climate factors related to expectations for TDV bystander intervention. The situational-cognitive model nests adolescent bystander decision-making within the larger school climate and setting-level norms and policies. The model considers how group affiliation factors such as peer status and victim/perpetrator factors such as sex and age contribute to an individual's recognition of a situation as problematic and interact with responsibility, attitudes, perceived norms and efficacy to cause bystander action or inaction (Casey et al., 2017).

Prior research suggests that factors within the individual and the school context impact high schoolers' likelihood of bystander intervention in response to bullying (Merrin, Espelage, & Hong, 2018) but research specific with TDV contexts is limited (Banyard, 2014). The current study examines how demographic features such as sex and age shape adolescent judgments of acceptability of peer aggression and how individual factors such as empathy, peer status, and perceptions of school climate shape expected TDV bystander behavior. Participants were chosen from 6th and 9th grades because these grades represent distinct transitions to middle school and high school in the United States. School transitions tend to reorganize social dynamics and peer groups, leading to potentially different experiences with peer aggression and

TDV (Farmer, Hamm, Leung, Lambert, & Gravelle, 2011; Pellegrini, 2002).

Gender and age

Previous research offers strong evidence that female bystanders are more likely than male bystanders to actively intervene in response to peer aggression (Jenkins & Nickerson, 2016; Ma, 2002) and TDV (Edwards et al., 2015; Jaffe, Sudermann, Reitzel, & Killip, 1992; Van Camp, Hébert, Guidi, Lavoie, & Blais, 2014). In addition, younger adolescent bystanders are more likely to intervene in peer aggression than older adolescents (Mulvey et al., 2019; Mulvey & Killen, 2016). For these reasons, the present study considers sex (self-reported and treated as a dichotomous variable) and age (operationalized by grade level: 6th and 9th grade) as individual factors that may influence adolescent judgments of peer aggression and their expected likelihood of active bystander intervention in TDV.

Empathy

Another individual factor that increases the likelihood of adolescent bystander intervention in peer aggression is empathy (Abbott & Cameron, 2014; Barchia & Bussey, 2011; DeSmet et al., 2016). Empathy is also related to adolescent proactive bystander actions in TDV contexts (Banyard, Mitchell, Waterman, Rizzo, & Edwards, 2020). Although many studies consider empathy as an univariate factor, Espelage and Swearer (2010) argue for the importance of distinguishing between affective empathy, cognitive empathy, and sympathy when studying factors related to peer aggression. Cognitive empathy involves understanding how someone feels and what they may be thinking (Espelage & Swearer, 2010). Affective empathy involves the ability to share feelings with another (Espelage & Swearer, 2010). Sympathy involves feelings of concern about another person or an event in their life (Espelage & Swearer, 2010). Previous research reveals a connection between affective empathy and increased likelihood of bystander intervention, but this was not true of cognitive empathy (van der Ploeg, Kretschmer, Salmivalli, & Veenstra, 2017). When combining multiple peer aggression contexts, Gönültaş et al. (2019) found that distinct components of empathy predict bystander responses differently. Given a lack of research examining empathy as a predictor of bystander intervention in TDV contexts, this study explores affective empathy, cognitive empathy, and sympathy as potential individual factors related to adolescent expectations of active intervention in response to a hypothetical TDV scenario.

Peer status

Peer status may influence adolescent bystander behaviors in response to bullying and TDV. Research with a middle school sample demonstrates that peers who are perceived as popular are less likely to recognize bullying and aggression that is occurring (Menolascino & Jenkins, 2018). However, van der Ploeg et al. (2017) found that bystander intervention may increase one's status in the school ecology because adolescents were perceived as more popular by their peers following defender behavior. Two qualitative studies with high school participants reveal some insight into how peer status may impact bystander intervention in TDV scenarios. Adolescents were less likely to intervene in general bullying and TDV situations if they perceived themselves to have a lower status (i.e. younger, lower grade, less popular) than the victim and/or the perpetrator (Casey et al., 2017) and were more likely to intervene in TDV if they had a higher peer status due to reduced perceived risks and increased defender self-efficacy (Thornberg, Landgren, & Wiman, 2018). The association between peer status and bystander response to TDV scenarios remains unexplored in quantitative research. Therefore, the current study explores the status markers of "popular", "most liked", and "least liked" within a school

context as potential social factors that may influence an individual's bystander behavior when witnessing TDV.

School climate

School climate shapes judgments of and responses to bullying in school contexts (Mulvey et al., 2019). Positive student-teacher relationships and school connectedness are two areas of school climate that have been shown to increase the likelihood of adolescent bystander intervention in peer aggression. Student-teacher relationships shape students' attitudes and responses to peer aggression (Mulvey et al., 2019) and impact bullying rates (Wang, Swearer, Lembeck, Collins, & Berry, 2015). In addition, positive student-teacher relationships are associated with high schoolers' likelihood of seeking help in response to threats or victimization (Eliot, Cornell, Gregory, & Fan, 2010). Similarly, when students feel connected to school, they may seek help from adults more in response to bullying (Saarento & Salmivalli, 2015) and increases in school and staff connectedness relate to increased bystander responses to bullying (O'Brennan, Waasdorp, & Bradshaw, 2014).

To date, research examining how school-factors may impact bystander intervention in TDV contexts is limited. Storer et al. (2017) conducted a qualitative study with high school focus groups to examine how school environments can facilitate or deter the utilization of bystander behaviors in response to bullying and TDV. Participants identified positive relationships with committed teachers (i.e., those who showed an interest in students' lives and expressed concerns when students were struggling) as a major factor in facilitating abusereporting in TDV scenarios; however, students did not see most teachers as sources of support (Storer et al., 2017). Furthermore, adolescents believed that teachers had more expertise and more power to intervene in bullying and TDV situations. Taken together, the findings of this study highlight that schools are complex environments that can influence students' thoughts regarding bystander efficacy and can facilitate or impede their likelihood of active intervention (Storer et al., 2017). Building upon these findings, the current study explores the association between four school climate factors (positive-teacher relationships, school connectedness, perceptions of discipline, opportunities for student engagement) and expectations for active TDV bystander intervention.

Present study

Given that TDV can involve both physical and social aggression, we developed a hypothetical TDV scenario that captured elements of both physical and social aggression targeting a romantic peer in a hypothetical heterosexual couple. We also developed a hypothetical scenario that involved physical aggression between platonic peers and a third scenario that involved social aggression between platonic peers. We refer to these stories as the TDV story, the Platonic Physical Aggression (PPA) story, and the Platonic Social Aggression (PSA) story. First, we aimed to compare adolescent acceptability judgments and expectations for active bystander intervention across the TDV, PPA, and PSA stories to understand if adolescents think about aggression targeting romantic and platonic peers differently. Given the dearth of literature on factors that predict TDV bystander intervention in adolescence and the serious longterm consequences of TDV victimization, we focus on exploring individual, peer, and school climate factors that predict adolescent expectations to intervene in the TDV story. Further, as noted above, we were interested in age and gender differences. We focused on adolescence, as prior research on bullying, generally, has documented developmental differences across adolescence with younger adolescents likely to judge bullying as less acceptable and more likely to express intentions to intervene than are older adolescents (Mulvey et al., 2019; Mulvey, Palmer, & Abrams, 2016). Furthermore, dating is more common in adolescence than in childhood and adolescents are more likely to experience TDV than are children (Child Trends, 2019). We also

explored potential gender differences, given that prior work has documented that girls often express higher intentions to intervene than do boys (Jenkins & Nickerson, 2016).

Research questions and hypotheses

Our specific research questions are as follows:

 Do adolescents differ in their judgments of acceptability between TDV, PPA, and PSA?

Hy-

pothesis 1We expect that teens will judge PPA as less acceptable than TDV and PSA.

2. Do adolescents differ in their expectations to actively intervene as bystanders in response to TDV, PPA, and PSA?

Hv-

pothesis 2We expect that adolescents will be more likely to expect to intervene in PPA than TDV and PSA.

3. Do these patterns vary by age and sex?

Hy-

pothesis 3We expect females and 6th graders will be less accepting of all three peer aggression scenarios and more likely to actively intervene in all three peer aggression scenarios compared to males and 9th graders.

4. What individual, peer, and school climate factors are associated with greater expectations of active bystander intervention in response to TDV?

Ну-

pothesis 4aWe expect adolescent judgments of acceptability to TDV to relate to their expectations of bystander intervention such that participants will be more likely to intervene in a scenario that they judged to be less acceptable.

Hy-

pothesis 4bWe expect higher levels of empathy will be associated with greater expectations for active bystander intervention.

Ну-

pothesis 4cWe expect peers who are nominated as "least liked" to be less likely to expect to actively intervene than those who are nominated as "popular" or "most liked".

Hy-

pothesis 4dWe hypothesize that higher rates of positive student-teacher relationships and school connectedness will be associated with greater expectations for active bystander intervention.

Method

Participants

Participants included adolescents (N=828) enrolled in 6th (N=425, $M_{\rm ageyears}=11.29$, SD=0.54, 49.9% female, 61.6% White, 24.9% Black, 3.8% Latinx, 8.5% Multiracial, 1.2% Other) and 9th grade (N=403, $M_{\rm ageyears}=14.31$, SD=0.52, 52.1% female, 68.2% White, 18.9% Black, 3.7% Latinx, 6.0% Multiracial, 3.1% Other). Participants were recruited from a total of 5 middle to low-income schools (3 middle schools, 2 high schools) within the same district in the Southeastern United States.

All 6th and 9th grade students enrolled in the 5 participating schools were invited to participate. IRB-approved parent consent letters were sent home one week prior to data collection. The students with parent consent also assented to participate (78% participation rate for all eligible students). An online, self-report Qualtrics survey was administered to all students who had parental consent and who assented to participation in classroom settings via school-provided laptops. Data

were de-identified after peer nominations were coded.

Measures

Responses to peer aggression

Participants were presented with six hypothetical stories, each describing a common form of peer aggression (four group scenarios and two dyadic scenarios) for group social aggression, physical aggression, cyberaggression, exclusion, teen dating violence, and dyadic social aggression. For the purposes of this study, our analyses focused on the physical aggression (PPA), partner aggression (TDV), and dyadic social aggression (PSA) stories because they shared similar aggressive behaviors (e.g., pushing and verbal aggression) but involved platonic versus romantic peers. Victim gender was matched to participant sex in each scenario, as gender is a social identity category with which adolescents affiliate strongly. We matched victim gender and participant sex to ensure that we did not see ingroup preference or outgroup dislike shaping participant response patterns, following conventions from other similar research (Killen, Rutland, Abrams, Mulvey, & Hitti, 2013; Mulvey et al., 2016). The TDV story depicted a heterosexual relationship such that a female participant received a TDV story involving a male perpetrator and female victim whereas a male participant received a TDV story involving a female perpetrator and a male victim. The PPA and PSA scenarios involved gender-matched transgressors and victims (see supplemental documents for full stories).

After each story, participants were asked to respond to a 6-point Likert scale (1 = really not okay to 6 = really okay) for acceptability of the act ("How okay or not okay is it that his/her classmates/friend act(s) that way?"). In addition, participants were asked using a 6-point Likert scale (1 = not at all likely to 6 = really likely) to estimate their likelihood of using four active (say something to the bully, tell an adult, tell a friend, and talk to the victim afterwards) bystander responses. The rates of all four active bystander strategies were averaged for PPA (4 items; $\alpha=0.73$), TDV (4 items; $\alpha=0.82$), and PSA (4 items; $\alpha=0.84$) to create a composite active bystander intervention score for each context.

Empathy

To evaluate empathy, participants responded to the Adolescent Measure of Empathy and Sympathy (AMES) (Vossen, Piotrowski, & Valkenburg, 2015). This measure includes three subscales: cognitive empathy (4 items; $\alpha=0.77$; "I can easily tell how others are feeling"), affective empathy (4 items; $\alpha=0.79$; "When my friend is sad, I become sad too"), and sympathy (4 items; $\alpha=0.82$; "I feel sorry for someone who is treated unfairly"). Items were rated on a 5-point Likert scale (1 = never to 5=always). Scores for each subscale were calculated by averaging the four items within each subscale.

Peer status

To evaluate peer status, participants responded to a peer nomination measure, similar to that of previous research conducted by Rodkin & Ahn (2009). Students could nominate up to three peers within their grade who best fit descriptors of roles in the peer ecology. For the purposes of this study, our analysis focused on the following peer statuses: "popular", "liked most", "liked least" to explore students who are perceived to have power in the school and those who are marginalized. Peer nominations were coded and standardized within their school population so that each participant received a z score for each peer nomination.

School climate

Participants also completed the School Climate Measure (Zullig et al., 2015). The four subscales of interest included positive student-teacher relationships (8 items; $\alpha=0.92$; "My teachers care about me"), discipline (6 items; $\alpha=0.90$; "The rules of the school are fair"), opportunities for student engagement (5 items; $\alpha=0.90$; "Nobody in my school is excluded from being successful"), and school connectedness (4

items; $\alpha = 0.85$; "My schoolwork is exciting"). Items were measured on a Likert scale (1 = *strongly disagree* to 5 = *strongly agree*). Items were averaged to create subscale composites.

Data analytic plan

To investigate whether adolescents differed in their judgments of acceptability and their expectations for active bystander intervention across the aggression stories, we conducted two 2 (Sex: female and male) x 2 (Grade: 6th and 9th) x 3 (Story: PPA, TDV, and PSA) ANOVA with repeated measures on the last factor. This approach allowed us to investigate potential sex and grade level differences in the two dependent variables while controlling for individual differences across the three aggression stories. Follow-up adjusted Bonferroni post hoc comparisons were used to determine sex and grade level differences. Missing data were handled using listwise deletion.

A Pearson correlation analysis was used to explore the correlations between the outcome variable and predictor variables (see Table 3). Then, a hierarchical regression was used to identify associations for expected active bystander responses to the TDV story. The model included five ecological levels, beginning with individual factors, then moving to peer factors, and ending with larger school factors. Adolescents' sex (male = 0, female = 1) and age (6th grade = 0, 9th grade = 1) were demographic features included in the first level of the model. The second level included participants' acceptability judgment of the TDV scenario to serve as a control for the following steps. The three dimensions of empathy (cognitive empathy, affective empathy, and sympathy) were added in the third step of the model to examine the socialemotional aspect of bystander intervention over demographic variables. The fourth step of the model included peer status ("popular", "most liked", "least liked"). The final step included school climate factors (student-teacher relationship, discipline, opportunities for student engagement, and school connectedness). We explored sex interactions in a separate model using mean-centered variables. Interaction variables were included in the fifth level, but this did not significantly contribute to the model (F change = 1.31, R^2 change = 0.01, p = .251). Therefore, we chose to report the more parsimonious four-level model below. Additionally, we conducted four separate hierarchical regressions for exploratory purposes, one for each of the active bystander responses (i. e., talk to the victim, say something to the perpetrator, get help from an adult, get help from a friend). Results are included in the supplemental documents.

Results

Acceptability judgments of physical, partner (TDV), and social aggression

Descriptive statistics for acceptability judgments of PPA, TDV, and PSA by sex and grade level are summarized in Table 1. Generally, adolescents reported low levels of acceptance for all peer aggression stories (means are below the midpoint). The 2 \times 2 \times 3 repeated measures ANOVA revealed a significant main effect for story (F(2, 1638) = 50.97, $p < .001, \eta_D{}^2 = 0.059$) and significant sex x story interaction (F(2, 1638)

Table 1
Means, standard deviations of acceptability judgments by grade and sex.

Sex	Physical Aggression	TDV Social Aggress			
	M (SD)	M (SD)	M (SD)		
Males	1.49 (1.00)	1.86 (1.26)	1.98 (1.26)		
6th Grade	1.40 (0.93)	1.66 (1.14)	1.69 (1.01)		
9th Grade	1.60 (1.05)	2.08 (1.34)	2.29 (1.43)		
Females	1.21 (0.69)	1.25 (0.79)	1.47 (0.87)		
6th Grade	1.15 (0.59)	1.24 (0.82)	1.44 (0.84)		
9th Grade	1.26 (0.77)	1.26 (0.75)	1.49 (0.91)		
Total	1.35 (0.87)	1.55 (1.09)	1.72 (1.11)		

Note: Scale 1-6. See results for significant differences.

= 10.20, p < .001, η_p^2 = 0.012) that were qualified by a significant story x sex x grade interaction (F (2, 1638) = 4.81, p = .008, η_p^2 = 0.006). The sex x grade interaction was nonsignificant (F (2, 1638) = 2.64, p = .071, η_p^2 = 0.003). The entire model accounted for 8% of the variance in acceptability judgments across the three stories (η_p^2 = 0.08).

As a reminder, participants read stories in which the victim's gender was matched to their reported sex. Possible interpretations and limitations are addressed in the discussion.

In terms of the story main effect, adolescents judged PPA as less acceptable than TDV and TDV as less acceptable than PSA (ps < 0.001). In terms of a sex main effect, females judged all three stories as less acceptable than males (ps < 0.001). Males judged PPA as less acceptable than TDV (p < .001) and TDV as less acceptable than PSA (p = .014). Females did not have a significant difference in their acceptability of PPA and TDV (p = .422); but they did judge PPA and TDV as less acceptable than PSA (p < .001 for both), see Table 1.

In terms of the story x sex x grade interaction, there was not a significant difference in how 6th grade and 9th grade females judged the three aggression stories. Both 6th and 9th grade females followed the general female pattern discussed above such that PPA and TDV were judged as less acceptable than PSA (p < 0.05). However, 6th grade males judged all aggression stories as less acceptable than 9th grade males (p = .018 for PPA, p < .001 for PSA and TDV). 6th grade males judged PPA as less acceptable than TDV (p < .001) and PSA (p < .001) with no significant difference in their judgment of TDV and PSA (p = .635). 9th grade males followed the general male pattern outlined above such that PPA was less acceptable than TDV and TDV was less acceptable than PSA (p = .003 for TDV and PSA, p < .001 for all others, see Table 1).

Active bystander intervention expectations for physical, partner, and social aggression

Descriptive statistics for average rates of adolescent bystander intervention in response to PPA, TDV, and PSA by sex and grade level are summarized in Table 2. Overall, adolescents expected that they were likely to intervene in all three peer aggression stories (all means above the midpoint). The $2\times2\times3$ repeated measures ANOVA revealed a significant main effect for story (F (2, 1638) = 17.73, p<.001, $\eta_p{}^2=0.021$) and a significant sex x story interaction (F (2, 1638) = 11.48, p<.001, $\eta_p{}^2=0.014$). The grade x story interaction (F (2, 1638) = 2.89, p=.056, $\eta_p{}^2=0.004$) and the sex x grade x story interaction (F (2, 1638) = 0.04, p=.962, $\eta_p{}^2=0.000$) were nonsignificant. The entire model accounted for 4% of the variance in active bystander intervention expectations across the three stories ($\eta_p{}^2=0.039$).

In terms of the story main effect, adolescents expected to be more likely to actively intervene in PPA than TDV and PSA (ps < 0.001). In terms of the sex x story interaction, females were more likely than males to expect to actively intervene in each of the three aggression stories (ps < 0.001). Notably, females were more likely than males to expect to actively intervene in the TDV story. Females were more likely to expect to intervene in PPA and TDV than PSA (p < .001, p = .001 respectively) with no difference between PPA and TDV (p = .695). Males were more

Table 2Means, standard deviations of expected active bystander intervention by grade and sex.

Sex	Physical Aggression	TDV	Social Aggression		
	M (SD)	M (SD)	M (SD)		
Males	4.46 (1.17)	4.14 (1.43)	4.27 (1.41)		
6th Grade	4.60 (1.10)	4.31 (1.33)	4.47 (1.26)		
9th Grade	4.32 (1.24)	3.96 (1.52)	4.04 (1.52)		
Females	4.99 (0.84)	4.97 (1.07)	4.81 (1.14)		
6th Grade	5.01 (0.80)	5.04 (1.00)	4.93 (1.05)		
9th Grade	4.96 (0.88)	4.89 (1.13)	4.68 (1.22)		
Total	4.73 (1.05)	4.56 (1.33)	4.54 (1.31)		

Note: Scale 1-6. See results for significant differences.

likely to expect to intervene in PPA compared to PSA (p < .001) and TDV (p < .001) and they were more likely to expect to intervene in PSA compared to TDV (p = .01).

Predictors of active bystander intervention in the TDV story

Participants' expected likelihood of actively intervening in the TDV story was moderately and positively associated with their sex, judgments of TDV acceptability, all three empathy variables, and all four school climate variables (see Table 3 for the full correlation matrix). Grade and all three peer nomination variables were weakly and mostly negatively associated with expected intervention. All empathy variables were moderately associated with each other whereas the school climate variables were highly associated with each another. Being nominated as popular was moderately associated with being nominated as most liked but being nominated as least liked was weakly associated with the other two nomination variables.

The final model of the hierarchal regression, with all predictors included accounted for 35% of variance in expected TDV active by stander responses ($R^2 = 0.35$), see Table 4 for model results. A hierarchical regression revealed eight significant predictors of expected active bystander responses to the hypothetical TDV scenario: sex, judgment of TDV acceptability, affective empathy, sympathy, cognitive empathy, being nominated as "popular," being nominated as "least liked," and positive student-teacher relationships. Females, participants who were less accepting of TDV, and participants with higher rates of sympathy, cognitive empathy, affective empathy, and positive studentteacher relationships were more likely to expect to actively intervene as a bystander when witnessing TDV (see Table 4). Participants considered both "popular" and "least liked" by their peers were less likely to expect to actively intervene as a bystander in the TDV story. All significant variables in the final model remained significant in all steps of the regression with the exception of grade level which became nonsignificant when step 3 was added to the analysis.

Discussion

The current study provides novel insights into adolescent social cognition surrounding peer aggression by (1) comparing adolescent acceptability judgments and bystander expectations to hypothetical PPA, TDV, and PSA stories and (2) examining individual, peer, and school climate factors related to expectations to actively intervene in the TDV story. Our results revealed that participants judged PPA as less acceptable than TDV and TDV as less acceptable than PSA but were more likely to expect to intervene in PPA than TDV and PSA. Females judged

Table 4 Hierarchical regression for expected active bystander intervention in the TDV story.

Variable	В	β	SE B	F Change	ΔR^2
Step 1				50.19***	0.11
Sex ^a	0.41	0.16***	0.08		
Grade ^b	-0.02	-0.01	0.08		
Step 2				74.57***	0.08
TDV Accept	-0.21	-0.18***	0.04		
Step 3					
Aff Empathy	0.16	0.12***	0.05	38.73***	0.10
Sympathy	0.28	0.17***	0.06		
Cog Empathy	0.15	0.09**	0.06		
Step 4				4.38**	0.01
Popular	-0.11	-0.09**	0.04		
Liked Most	0.00	0.00	0.04		
Least Liked	-0.08	-0.06*	0.04		
Step 5				13.78***	0.05
ST Relation	0.25	0.18**	0.08		
Discipline	0.08	0.06	0.09		
Opp Stud Eng	0.00	0.00	0.08		
School Con	0.02	0.02	0.05		

Note: TDV Accept = judgment of acceptability for the TDV story, Aff = Affective, Cog = Cognitive, ST Relation = Positive Student-Teacher Relationships, Opp Stud Eng = Opportunities for Student Engagement, School Con = School Connectedness. All previously significant variables on the final model remained significant in all steps of the regression with the exception of grade level which became nonsignificant when step 3 was added to the analysis.

all aggression stories as less acceptable than males and were more likely to expect to intervene in all three stories. Being less accepting of TDV and reporting greater empathy and positive student-teacher relationships was associated with higher rates of expected bystander intervention to the TDV story. However, participants who were nominated as "popular" and "least liked" by their peers were less likely to expect to intervene in the hypothetical TDV story. Taken together, these results contribute to the limited research on adolescent social cognition regarding TDV and have important implications for bystander intervention programing aimed at reducing TDV in middle and high school.

Table 3 Correlation matrix for all variables included in the hierarchical regression.

Var	1	2	3	4	5	6	7	8	9	10	11	12	13
1.AB	-												
2. JA	0.36***												
3.Sex	0.31***	-0.28***	_										
4.Gr	-0.09*	0.09**	0.02	_									
5.AE	0.27***	-0.14***	0.34***	0.02	_								
6.Sym	0.44***	-0.42***	0.30***	-0.17***	0.37***	_							
7.CE	0.30***	-0.16***	0.21***	-0.01	0.31***	0.42***	_						
8.Pop	-0.06	-0.01	0.04	-0.20***	0.04	0.03	0.02	_					
9.ML	0.01	-0.02	0.08*	-0.16***	0.11**	0.05	0.05	0.37***	_				
10.LL	-0.09*	0.01	-0.10**	-0.16***	-0.02	0.01	0.00	0.12***	0.16***	_			
11.STR	0.34***	-0.14***	0.01	-0.27***	0.05	0.35***	0.17***	0.09**	0.06	0.02	_		
12.Dis	0.33***	-0.17***	0.03	-0.26***	0.05	0.35***	0.18***	0.06	0.08*	0.00	0.83***	_	
13.OSE	0.31***	-0.19***	0.04	-0.24***	0.02	0.34***	0.15***	0.08*	0.07	0.02	0.79***	0.83***	_
14. SC	0.25***	-0.12***	-0.01	-0.29***	0.06	0.22***	0.09**	0.01	0.05	0.04	0.70***	0.64***	0.66***

Note: AB = active bystander response to TDV, AJ = judgment of TDV acceptability, Gr = grade, AE = affective empathy, Sym = sympathy, CE = cognitive empathy, Pop = popular, ML = most liked, LL = least liked, STR = positive student-teacher relationships, Dis = discipline, OSE = Opportunities for Student Engagement, SC = school connectedness.

^a Sex: 0 = male and 1 = female.

 $^{^{}b}$ Grade: 0 = 6th grade and 1 = 9th grade.

p < .05.

^{***} p < .01.

p < .001.

^{*}p < .05, **p < .01, *** $p \leq .001$.

Adolescent acceptability of peer aggression and expectations for bystander intervention

Our results revealed important sex-based differences in adolescent cognition surrounding PPA, TDV, and PSA. Similar to findings in the general bullying (Mulvey et al., 2016; Rappaport & Thomas, 2004) and TDV (Casey et al., 2017; Edwards et al., 2015; Jaffe et al., 1992; Van Camp et al., 2014) literatures, our results revealed that females are less accepting of various forms of peer aggression and are more likely to expect to actively intervene than males. This was especially true for the TDV story, which saw the largest differences in mean scores.

We found that adolescents consistently judged physical aggression presented in the PPA story to be less acceptable than social aggression presented in the PSA story, but when both forms of aggression were presented in the TDV story, males and females judged the story differently. Females' acceptability of the PPA story did not differ from that of the TDV story. Thus, females may perceive the physical aggression presented in both the PPA (female victim and perpetrator) and TDV (female victim, male perpetrator) stories as relatively similar. However, males judged the PPA story as less acceptable than the TDV story. This finding suggests that males perceived the "pushing" presented in both the PPA (male victim and perpetrator) and TDV (male victim, female perpetrator) scenarios differently, such that pushing in the TDV context was more acceptable.

Despite the combination of physical and social aggression presented in the TDV story and their belief that TDV was less acceptable than PSA, males were more likely to expect to intervene in the PSA story, which involved social aggression between two males. As male participants evaluated a scenario where a female peer was aggressing against a male peer in the TDV story, these differences may be explained by the sex of the aggressor. Previous research indicates that adolescents are less likely to intervene in TDV if the victim is male because youth view females abusing males as funny or deserving (Edwards et al., 2015). Although a TDV scenario involving a female aggression and male victim may not fit the prototypical perception of TDV, prior research suggests that this is fairly common occurrence. Temple, Shorey, Tortolero, Wolfe, and Stuart (2013) found that females reported perpetrating more physical and psychological TDV than their male counterparts with 28.8% of females and 12.2% of males perpetrating physical TDV and 87.7% of females and 73.9% of males perpetrating psychological TDV. All forms of dating violence should be considered unacceptable and future bystander intervention programs should encourage youth to take action in TDV incidents involving male victimization as well.

Contradictory to our expectations, 6th and 9th graders did not differ in their expectations to intervene in the three peer aggression stories, yet 6th grade males judged all three aggression stories as less acceptable than 9th grade males. Taken together, these results may indicate that as they age, adolescent males may become more accepting of peer aggression but their expectations to intervene may not change. To our understanding, this specific developmental pattern has not been documented by previous literature. Our findings indicate that longitudinal research is needed to better understand the developmental trajectory of peer aggression acceptability and bystander expectations throughout adolescence, especially for males.

Factors associated with active bystander intervention to TDV

The results of the hierarchical regression provide novel insights into individual, peer, and school climate factors associated with expectations to actively intervene in TDV. We confirmed our hypotheses that females and individuals who are less accepting of TDV, more empathetic, and more likely to have positive student-teacher relationships indicated a greater expectation of active bystander intervention.

Given the significant associations between higher levels of empathy and increased likelihood of expecting to use active bystander behaviors found in this study, the question remains: Can bystander intervention programs harness the potential power of empathy to induce prosocial behavior in response to TDV? Prior research focused on peer groups indicates that youth intend to help friends and non-friends equally when empathetic understanding is induced (Sierksma, Thijs, & Verkuyten, 2015) and school-based interventions aimed at promoting empathy-related responding in childhood and adolescence can decrease peer aggression (Malti, Chaparro, Zuffianò, & Colasante, 2016). This is important, as prior research has indicated that adolescents are less likely to intervene in TDV if they are not friends with the individuals involved (Casey et al., 2017; Edwards et al., 2015; Noonan & Charles, 2009). The BIB intervention produced short-term impacts in TDV victim empathy, but these results did not continue one-year post intervention (Edwards et al., 2019). Future research examining the effectiveness of promoting lasting empathy-related responses in TDV contexts involving peers is needed to inform intervention programming best practices.

With regard to peer status, our results indicate that being perceived by peers as "popular" and "least liked" are both negatively associated with expectations for active bystander intervention. Our results are partially supported by prior qualitative research that found adolescents were less likely to intervene in TDV situations if they perceived themselves to have a lower status than the victim and/or the perpetrator (Casey et al., 2017). Adolescents may perceive intervening in TDV as socially risky. Popular adolescents may worry about losing their elevated status if they intervene in TDV, whereas adolescents who are not liked by their peers may feel apathetic towards them and are unwilling to get involved. Previous qualitative research offers some insight into why individuals with either high or low statuses in the school ecology may be less likely to expect to actively intervene in TDV scenarios. Casey et al. (2017) found that high school adolescents tend to view a couple's relationship as private and "none of their business", making it unlikely that they would intervene when witnessing non-overt partner aggression. In this sense, not getting involved in peer romantic relationships is a social norm, which, if violated could risk a reduction in social status. In support of this notion, Thornberg et al. (2018) found that adolescents were less likely to intervene in general bullying contexts by seeking help from others even though it was considered to be safer than direct intervention because it put them at risk of being perceived as a "squealer" by their peers. Similarly, Noonan and Charles (2009) found that middle school youth's non-action in response to TDV was related to concerns about being labeled as a "snitch". Our finding that popular participants were less likely to expect to intervene in TDV is concerning for bystander intervention programs such as the Green Dot (Coker et al., 2017) and BIB (Edwards et al., 2019), which rely on Rogers (2003) Diffusion of Innovation Theory to recruit popular students to spread active bystander skills and knowledge to others. Given our findings, it may be more efficacious to train a representative sample of the school on active bystander intervention strategies, rather than focus on popular individuals or to improve popular students' sense of agency when witnessing instances of peer TDV. Further research is needed regarding peer status and adolescent utilization of specific bystander behaviors to consider how the peer ecology may impact the efficacy of such intervention efforts.

Our results confirmed our expectation that positive student-teacher relationships were associated with a greater expectation to use active bystander strategies in response to TDV. This finding is consistent with prior research that suggests that adolescents are more likely to intervene in TDV if they have a positive relationship with at least one teacher at school (Debnam & Mauer, 2019). Similarly, Edwards et al. (2015) found that students thought it was a good idea to involve teachers in TDV but were hesitant to do so with teachers with whom they did not have a close relationship. Some students, perhaps those with positive teacher relationships, perceived teachers to be helpful in TDV scenarios because their greater life experiences helped adolescents gain a deeper understanding of the situation (Edwards et al., 2015). A recent qualitative study revealed that high schoolers found that telling an adult about instances of bullying or TDV was the most feasible form of active

bystander intervention, especially in TDV and physical bullying situations (Casey et al., 2018). Furthermore, adolescents commonly identified school personnel (e.g., teachers, counselors, and school resource officers) as the adults they would likely go to for help (Casey et al., 2018). Prior research and our results indicate that fostering positive student-teacher relationships and perhaps encouraging students to recognize that school personnel can play a key role in stopping TDV may help promote active bystander intervention in TDV at school.

Limitations

The current study has several limitations. Firstly, the presentation of the peer aggression scenarios within the current study may have impacted bystander intervention expectations because all stories were gender-matched to the victim and the TDV story was the only scenario in which the perpetrator's gender did not match the participant's sex. Additionally, future research should include gender identity measures that recognize non-binary gender identities and should examine acceptability judgments and expected bystander behavior in nongender-matched TDV contexts, especially for situations involving female perpetrators, male victims, and non-heterosexual couples. Another limitation of the current study is the use of hypothetical scenarios that included similar but not the same aggressive behaviors between TDV, physical, and social aggression contexts. Although previous research documents that youths' judgments and reasoning in hypothetical scenarios align well with their actual behavior (Mulvey, Boswell, & Niehaus, 2018; Turiel, 2008), further research is needed to validate this alignment for expected adolescent bystander behaviors in response to real TDV scenarios. Although real life instances of TDV include both physical and social aggression, future research may seek to compare adolescent judgments of strictly physical or strictly social aggression targeting romantic versus platonic peers. Future research should more carefully control for potentially confounding variables by using the exact same hypothetical aggressive behaviors perpetrated against platonic or romantic peers. Doing so may elucidate the differences we found in adolescent acceptability of and expectations to intervene in TDV, physical aggression, and social aggression. Furthermore, when measuring adolescent acceptability judgments, future research should consider using multi-item measurement scales as our findings are limited by the use of single-item measures for this construct. This may be especially helpful in guarding against the potential for social desirability effects. It is possible that the high rates of expected intervention, and the high rates of empathy may, in part, reflect social desirability effects. For example, prior research with adults has documented that gender differences in ethical responding, in particular, are driven by social desirability (Dalton & Ortegren, 2011). In addition, our study did not measure adolescents' exposure to TDV. Future research should ask about participants' exposure to relationship violence, as prior research indicates that greater exposure relates to greater likelihood of TDV perpetration and greater endorsement of violence accepting attitudes (Temple et al., 2013). Finally, the current study is limited by the crosssectional design, especially in regard to individual, peer, and school climate factors that are associated with expectations for TDV bystander actions. Longitudinal research is needed to determine the directionality of our preliminary findings.

Implications

The results of the current study have several important implications for school-based interventions aimed at reducing TDV throughout adolescence. Primarily, programs should teach adolescents how to recognize signs of TDV, especially in contexts that do not involve physical aggression, female victims, or male perpetrators. Our results indicate that these contexts may be more difficult for adolescents to recognize as abuse and they may be less likely to actively intervene (Casey et al., 2017; Edwards et al., 2015; Thornberg et al., 2018).

Recognizing TDV is an important first step that cannot be overlooked, as our findings indicate that adolescents who are less accepting of a hypothetical TDV story are more likely to expect to actively intervene as a bystander. Our results also indicate that different forms of empathy, especially sympathy, are important predictors in expected bystander intervention. Thus, programs should emphasize empathetic reasoning that encourages adolescents to intervene in TDV scenarios involving their peers, not just their friends. Programs should also consider how peer ecologies and school climates can facilitate or deter prosocial bystander behaviors when witnessing TDV. Schools should continue to foster positive student-teacher relationships because our results indicate that doing so would likely improve adolescent expectations for active bystander intervention when witnessing instances of TDV among their peers.

Conclusion

Our findings document that adolescents are less accepting and more likely to intervene in instances of physical aggression compared to social aggression, but when both forms of aggression occur with TDV, adolescent judgments and bystander expectations are largely context-dependent. Thus, adolescents have sophisticated social-cognition surrounding different types of aggression and active bystander intervention strategies. However, adolescents may not be attuned to the harm occurring or the necessity of intervening especially when TDV incidents occur in peer relationships, suggesting the importance of targeted programming that focuses on TDV in particular. Our results suggest that programs seeking to reduce TDV in schools by improving bystander intervention should encourage adolescents to recognize nontraditional forms of TDV, foster empathy, and facilitate positive student-teacher relationships.

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Ethical approval

This was approved by the Institutional Review Board at the University of South Carolina and North Carolina State University approved the study with an inter-institutional agreement.

Submission declaration and verification

We have not submitted this paper to any other journal for consideration of publication. All authors have seen and approved the manuscript and have contributed significantly to the paper.

Declaration of Competing Interest

None.

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Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi. org/10.1016/j.appdev.2022.101389.

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