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Teen Dating Violence, Sexual Harassment, and Bullying Among Middle School Students: Examining Mediation and Moderated Mediation by Gender

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Abstract This longitudinal study tested whether sexual harassment perpetration mediates the relationship between bullying perpetration and teen dating violence (TDV) perpetration and tested moderated mediation by assessing whether the developmental pathway varies by gender among middle school-aged youth. Although TDV has been associated with bullying and sexual harassment, the developmental relationship among all three behaviors has rarely been examined, especially by gender. The data were collected from one cohort of seventh grade middle school students ($N = 612$) from four schools. Students were surveyed every 6 months during seventh and eighth grades for a total of four waves of data collection. Structural equation modeling (SEM) was conducted to address the study aims, consisting of three stages: measurement models, mediation, and moderated mediation (otherwise known as *Contrast of Mediated Effects*). Results indicate no evidence of mediation. However, in the overall model, bullying and sexual harassment both emerged as significant predictors of TDV at a later time point. Among girls, only bullying significantly predicted TDV at a later time point, and, among boys, only sexual harassment significantly predicted TDV at a later time point. Prevention programs that target bullying and sexual harassment perpetration may reduce later perpetration of TDV. Further research is needed to disentangle the temporal relationships between these aggressive behaviors among youth.

Keywords Bullying · Sexual harassment · Teen dating violence · Gender · Adolescents · Longitudinal

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Introduction

There is a great need for longitudinal research to assess temporality of teen dating violence (TDV) relative to other forms of aggression (Espelage 2011). This study uses longitudinal data to investigate the potential developmental pathway among three forms of aggression: the perpetration of bullying, sexual harassment, and dating violence among adolescents in middle school. Examining how aggressive behavior develops and changes and how it differs by gender will better position program developers and practitioners to more precisely target and intervene in aggressive behaviors predictive of TDV.

The Developmental Life Span Perspective

A developmental life span perspective is useful when considering the context of aggressive behavior in early adolescence and the interconnections among bullying, sexual harassment, and dating violence. As children transition into adolescence, aggressive behaviors may transform as young teens are faced with new age-relevant challenges (Pepler et al. 2006). A number of defining social processes shift during the transition to early adolescence, including the composition of peer groups, emerging romantic interests, and changing peer norms (Miller et al. 2013).

Early adolescence and transition to middle school bring pivotal changes in social affiliations. Previously established peer groups become destabilized as gender-segregated

childhood peer groups gradually shift to mixed-gender groups (Connolly et al. 2000). Early dating emerges from these mixed-gender groups as youth explore budding romantic interests.

Also changing in the transition to early adolescence are norms surrounding aggression. As youth enter adolescence, aggressive behaviors are increasingly linked with autonomy and maturity and enhanced social status among peers (Cillessen and Mayeux 2004). Peer norms also shift from complying with authority figures (e.g., parents, teachers) to emulating peers who challenge authority (Miller-Johnson and Costanzo 2004). Young adolescents may view aggression positively as these behaviors serve the function of asserting power and control within social hierarchies.

Constellation of Aggressive Behaviors

This confluence of social transitions and changing norms surrounding aggression signal a need to assess the temporality of aggressive relationship behaviors. Within a developmental framework, adolescents may first exert power and control during early adolescence or childhood with peer interactions consisting of bullying. As a form of aggression, bullying is exerted to enact dominance and status over peers. It manifests as an early form of aggression that does not center on sex or gender; rather, bullying remains situated within personal, psychological, or situational factors (Gruber and Fineran 2016).

As youth developmentally advance and become more aware of gender norms and pubertal development, they may begin engaging in the next developmentally relevant form of aggression, sexual harassment. Attempts to exert dominance shift from a form of aggression that is generalized, to a form of aggression contingent upon a person's gendered appearance, gendered identity, body parts, sexual orientation, or sexual activity. Because pubertal changes often heighten vulnerability around sexuality and sexual identity, youth may engage in sexual harassment in their attempts to attain power and status through regulating adherence to gender norms and conformity to hetero-normative sexual orientation (Gruber and Fineran 2016).

Studies suggest that bullying peaks earlier than sexual harassment (Nansel et al. 2001) and that the bullying prevalence rates decline overall during adolescence except during school transitions (Pellegrini et al. 2010), while other aggressive behaviors such as sexual harassment emerge (Espelage et al. 2015). Pellegrini (2001) asserts that sexual harassment is a form of bullying and should, therefore, be predicted by bullying. To our knowledge, five studies link bullying and sexual harassment or sexual violence (DeSouza and Ribeiro 2005; Espelage 2011; Espelage et al. 2015; Pellegrini 2001; Pepler et al. 2006).

Further in the developmental pathway, as youth become increasingly engaged in mixed-gender groups and in dating, adolescents may generalize "power-over" aggression to yet another form of relationship aggression: TDV (Pepler et al. 2006). In short, the power imbalance typified by bullying and sexual harassment behaviors may then extend into dating relationships. Seven studies indicating significant associations between bullying and teen dating violence exist to our knowledge (Connolly et al. 2000; Debnam et al. 2015; Foshee et al. 2014; Niolon et al. 2015; Orpinaset al. 2012; Pepler et al. 2006; Peters et al. 2015), and two studies document significant associations between sexual harassment and teen dating violence (Chiodo et al. 2012; Chiodo et al. 2009).

In summary, these empirical findings demonstrate that bullying, sexual harassment, and dating violence are interrelated, and youth who engage in one form are more likely to engage in another (Pepler et al. 2006). However, none of these studies have examined sexual harassment as a mediator of bullying TDV among middle school students using a longitudinal dataset (study aim 1).

Aggression and Gender

The second study aim investigates moderated mediation (contrast of mediated effects), specifically whether the developmental progression from bullying to sexual harassment to TDV varies by gender. This inquiry hinges on the premise that gender, sexual harassment, and TDV behaviors likely have differing etiologies, risk factors, and consequences—and that the behaviors are enacted differently—*because of gender* (Espelage et al. 2015; Reed et al. Silverman 2010; Stein and Mennemeier 2011). Situating these behaviors as gender-based, as opposed to gender neutral, in no way suggests that both boys and girls cannot or do not exhibit unhealthy relationship behaviors, including aggression (Hamby 2009). Rather, it acknowledges that gender norms and roles are enacted differently by girls and boys (Reed et al. 2010; Stein and Mennemeier 2011) and that girls and boys may therefore attach different importance to shoring up power, dominance, and status through relationship aggression as they progress through middle school (Espelage et al. 2015; Gruber and Fineran 2016). Testing moderated mediation by gender will advance the science aimed at understanding whether and how developmental aggression varies by gender, thereby better positioning TDV prevention programming to ameliorate such behaviors among girls and boys.

Current Study

This study seeks to (1) determine whether sexual harassment mediates the relationship between bullying and TDV and (2) whether these relationships vary by gender. It approaches bullying, sexual harassment, and dating violence as forms of aggression tied to pubertal development and social transitions in early adolescence (Pepler et al. 2006).

Methods

Study Design, Sample, and Procedures

Data were collected as part of the independent evaluation of *Start Strong*: *Building Healthy Teen Relationships* (Miller et al. 2015). The quasi-experimental longitudinal evaluation design matched four comparison schools from three geographically and racially diverse cities across the country to the participating intervention schools on the following criteria: school size, percentage of free/reduced lunch, race/ethnicity, and socio-historical and cultural city contexts.

Eligibility criteria for student participation included ability to complete the questionnaire in English or Spanish and not being in a self-contained special education class. A total of 1516 students from the four comparison schools met the two eligibility criteria. Of these students, parental permission for participation was obtained from a total of 808 students (53 % of those eligible), and 754 students (50 % of those eligible) completed the baseline survey. The cohort of students was surveyed every 6 months—beginning in fall of their seventh grade year and concluding in the spring of their eighth grade year—for a total of four waves of data collection during the 2010–2011 and 2011–2012 academic school years. The data were collected using paper-and-pencil, self-administered questionnaires. Attrition (defined as loss of all follow-ups after being in a previous wave) was minimal: 4.0 % (724 students retained) and 9.8 % attrition (653 students retained) at waves 2 and 3, respectively. Most attrition occurred because students withdrew from school (rather than students declined to take the survey). No significant differences in attrition at waves 2 or 3 were observed by gender or race/ethnicity. The sample at baseline was 49.6 % male and was 33.3 % Black, 27.9 % White, 26.4 % Latino, and 12.5 % of another race/ethnicity or of multiple race/ethnicities. The study and data collection procedures were approved by the Institutional Review Board of RTI International.

The analytic sample for this study included all students in the four comparison schools who completed the baseline, wave 2 follow-up, and wave 3 follow-up instruments (N = 612). This was approximately 85 % of those students enrolled in the study. Typically, such attrition and missing data would be addressed through methods such as multiple imputation or appropriate maximum likelihood estimation. However, in this study, missing data may have indicated the student did not date, and thus, their data were not missing in the usual sense. In other words, data for dating-related measures for nondaters did not exist, i.e., rather than merely being unobserved. Rather than use missing data techniques that would assume that their responses were existing but unobserved, it was deemed more appropriate to use only cases for which complete data were obtained and for whom dating behaviors and relevant violence measures were nonmissing. This effectively subset the sample to students who could be positively identified as having consistently dated across all three waves of data collection. Sample size varied across the measurement and mediation model and ranged from 526 to 730 depending on missing data in the scale being examined: bullying (N = 730), sexual harassment (N = 726), physical TDV (N = 526), psychological TDV (N = 519), and electronic TDV (N=518). Preliminary exploration of the data indicated that almost all TDV missing data were due to students reporting that they were not in a current dating relationship.

Measures

Self-reported measures included perpetration of the following aggressive behaviors: physical dating violence, psychological dating violence, electronic dating violence, sexual harassment, and bullying. Response options for each of the items within each scale were coded dichotomously: never (0) and any (1). The TDV measure consists of three subscales: *Physical dating violence perpetration*. The Families for Safe Dates physical dating violence perpetration scale (Foshee et al. 2012) was used to assess past 6-month physical TDV perpetration. The scale included five items and assessed behaviors such as scratched or slapped them, and pushed, grabbed, shoved, or kicked them. *Psychological dating violence perpetration*. Students were asked to complete the Families for Safe Dates psychological dating abuse perpetration scale (Foshee et al. 2012). Past 6-month behavior was assessed using five items, including saying something to hurt their feelings on purpose, and insulting them in front of others. *Electronic dating violence perpetration*. Electronic TDV perpetration was measured with a modified version of the Youth Internet Safety Scale (Finkelhor et al. 2000; Teenage Research Unlimited, Inc. 2007). Eight items were used to assess past 6-month behaviors, such as trying to make them afraid, and spreading rumors about them. *Sexual harassment perpetration*. A modified American Association of University Women Educational Foundation (2001)) was used to assess past 6-month sexual harassment. The scale included six items and assessed behaviors such as uninvited touching, and making sexual jokes about someone. *Bullying perpetration*. Students were asked to complete a bullying scale (Espelage and Holt 2001). Ten items assessed bullying perpetration in the past 6 months by behaviors such as upsetting someone for the fun of it, and threatening to hurt or hit someone.

Control Variables

This study controls for the following variables that could confound proposed associations: gender, race/ethnicity, and alcohol use. Gender is a control variable in the mediation analysis

and a moderator in the moderated mediation analyses. Gender was coded such that 1 = girls and 2 = boys. Race/ethnicity was included as a control variable as numerous studies suggest that it is associated with the etiology of bullying, sexual harassment, and TDV (Chiodo et al. 2009; Connolly et al. 2000; Foshee et al. 2014). Race/ethnicity was dummy coded so that the three variables created reflected (1) Black/African-American compared to White, (2) Hispanic compared to White, and (3) other/multiple/unknown compared to White. Among youth, alcohol use has been shown to be associated with bullying (Luk et al. 2010), sexual harassment (Fineran and Gruber 2009; Sinclair et al. 2012), and TDV (Niolon et al. 2015; Temple et al. 2013). Thus, alcohol use was controlled in analyses. Students were asked to complete a question on past 6-month alcohol use: "About how many times have you had three or four drinks of alcohol in a row?"; response options included the following: "none," "1–2 times," "3–5 times," "6–9 times," and "10 or more times."

Analysis Strategy

Structural equation modeling (SEM) was used to address the study aims in three stages: measurement models, mediation, and moderated mediation. All models were estimated using MPlus 6.11 (Muthén and Muthén 1998–2012) with the weighted least squared mean variance (WLSMV) estimator for binary outcomes.

Measurement Models

All instruments were designed as unidimensional instruments. Confirmatory factor analysis was used to verify the single factor structure of physical TDV, psychological TDV, electronic TDV, and sexual harassment. The bullying scale included items related to both direct and indirect bullying, and gender differences have been noted in the perpetration of these subtypes of bullying. An exploratory factor analysis (EFA) was conducted on the bullying items to assess a one- versus two-factor solution.

After conducting the first-order CFAs of each of the three TDV factors (physical TDV, psychological TDV, and electronic TDV), a second-order factor model with TDV indicated by each of the three specific TDV factors was estimated. A second-order factor model of general TDV was explored as it would ease interpretation of later mediation and moderated mediation models discussed below (Chen et al. 2005).

Several goodness-of-fit measures were used to evaluate model fit including the weighted root mean square residual (WRMR), the comparative fit index (CFI; Bentler 1990), and the root mean square error of approximation (RMSEA). Generally accepted cutoffs for these indices are 1.0 or lower for WRMR, 0.95 or higher for CFI, and 0.05 or lower for RMSEA (Hu and Bentler 1999).

Mediation

The second stage investigated whether sexual harassment mediates the association between bullying and TDV (Fig. 1). Figure 1 presents the structural equation model that was specified to test the proposed developmental pathway. Each dependent variable was predicted by its value at the immediate preceding time point to account for autoregressive relationships in each item over time (e.g., sexual harassment at T2 was predicted by T1 sexual harassment). The model also includes sex, race/ethnicity, and alcohol use as control variables. These control variables were entered into the model such that they were controlled for in all paths examined.

Indirect effects were estimated as the product of the path from bullying to sexual harassment (the *a* path) and the path from sexual harassment to TDV (the *b* path; MacKinnon et al. 2007). To account for the common nonnormality of the product term *ab*, each mediated effect was tested for significance using percentile bootstrap confidence intervals (CIs, Efron and Tibshirani 1986). Bootstrap CIs have been shown to have superior statistical properties to many other methods for testing mediation (Mackinnon et al. 2004).

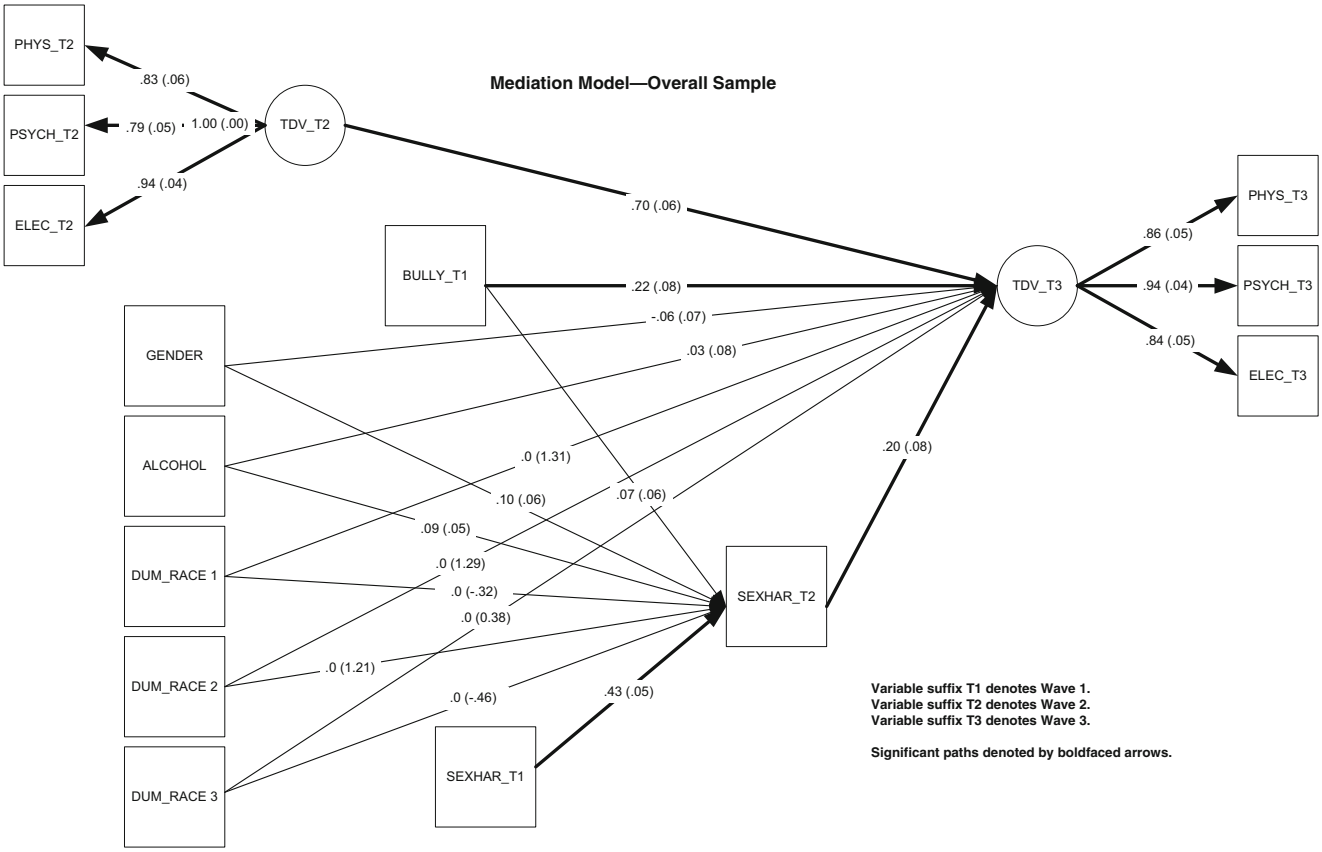
Moderated Mediation

The final stage of the analyses included tests of moderated mediation. Moderation of mediated pathways was examined with contrasts of mediated effects using multiple group SEM (Williams and MacKinnon 2008). Using this approach, the same mediation model was estimated for each subgroup and the difference between the two indirect effects was estimated using Mplus's nonlinear model constraints.

Results

Measurement Models

An EFA was first conducted on the bullying scale, stratifying by gender, to determine if a one- or two-factor solution was a better fit to the data, followed by a CFA. The one-factor solution was chosen for the following reasons: Despite the fact that the chi-squared ratio was slightly elevated (ratio = 3.07), taken together, the goodness-of-fit indices suggest the data fit the one-factor model well (RMSEA = 0.05, CFI = 0.98, WRMR = 1.11). In addition, in both the boy and girl models, the one-factor models had the largest eigenvalues compared with the two-factor models. Further, a one-factor solution is more parsimonious than a two-factor solution. The scientific principle of parsimony suggests that "other things being equal, fewer factors are better than many factors" (Goldberg and Velicer in press). Therefore, a single-factor model for the bullying measure was retained for subsequent analyses.



Note: The denotation for the numbers in the figures is **β (SE)**

Fig. 1 Results from test of mediation with overall sample ($N = 612$)

All CFA models yielded acceptable goodness-of-fit indices for the expected one-factor solution for each construct, as well as for the second-order TDV construct, which was therefore retained for subsequent analyses (bullying: RMSEA = 0.05, CFI = 0.98, WRMR = 1.11; sexual harassment: RMSEA = 0.01, CFI = 0.99, WRMR = 0.51; psychological TDV: RMSEA = 0.04, CFI = 1.00, WRMR = 0.61; physical TDV: RMSEA = 0.00, CFI = 1.00, WRMR = 0.19; electronic TDV: RMSEA = 0.00, CFI = 1.00, WRMR = 0.49; second-order TDV: RMSEA = 0.02, CFI = 0.99, WRMR = 0.75).

Mediation

Table 1 identifies descriptive statistics, namely proportions of students endorsing key outcomes of interest depicted in the measurement model (Fig. 1). Endorsement of a behavior was coded as ever having experienced any of the items within the scale.

Path coefficients associated with the tested mediation model for the overall sample are depicted in Fig. 1. Significant associations are boldfaced. As hypothesized, bullying perpetration at time 1 predicted TDV perpetration at time 3 ($\beta = 0.22$, SE = 0.09, $p = 0.01$) when controlling for TDV at time 2. Sexual harassment perpetration at time 2 also predicted TDV perpetration at time 3 ($\beta = 0.02$, SE = 0.08, $p = 0.02$) when controlling for TDV perpetration at time 2. However, bullying perpetration at time 1 was not a significant predictor of sexual harassment perpetration at time 2 ($\beta = 0.07$, SE = 0.06, $p = 0.30$). As expected, all autoregressive relationships were significant.

The mediated effect was nonsignificant (indirect effect = 0.01; SE = 0.01; CI = −0.02, 0.41; $p = 0.35$). In sum, although some of the coefficients associated with the proposed relationships were statistically significant, the nonsignificant indirect effect suggests that sexual harassment is not a mediator of the association between bullying and TDV.

Moderated Mediation

To conduct contrasts of mediated effects, the mediation model (Fig. 1) was tested first with girls and then with boys; the results for girls are presented in Fig. 2; the results for boys are presented in Fig. 3.

Results for Girls

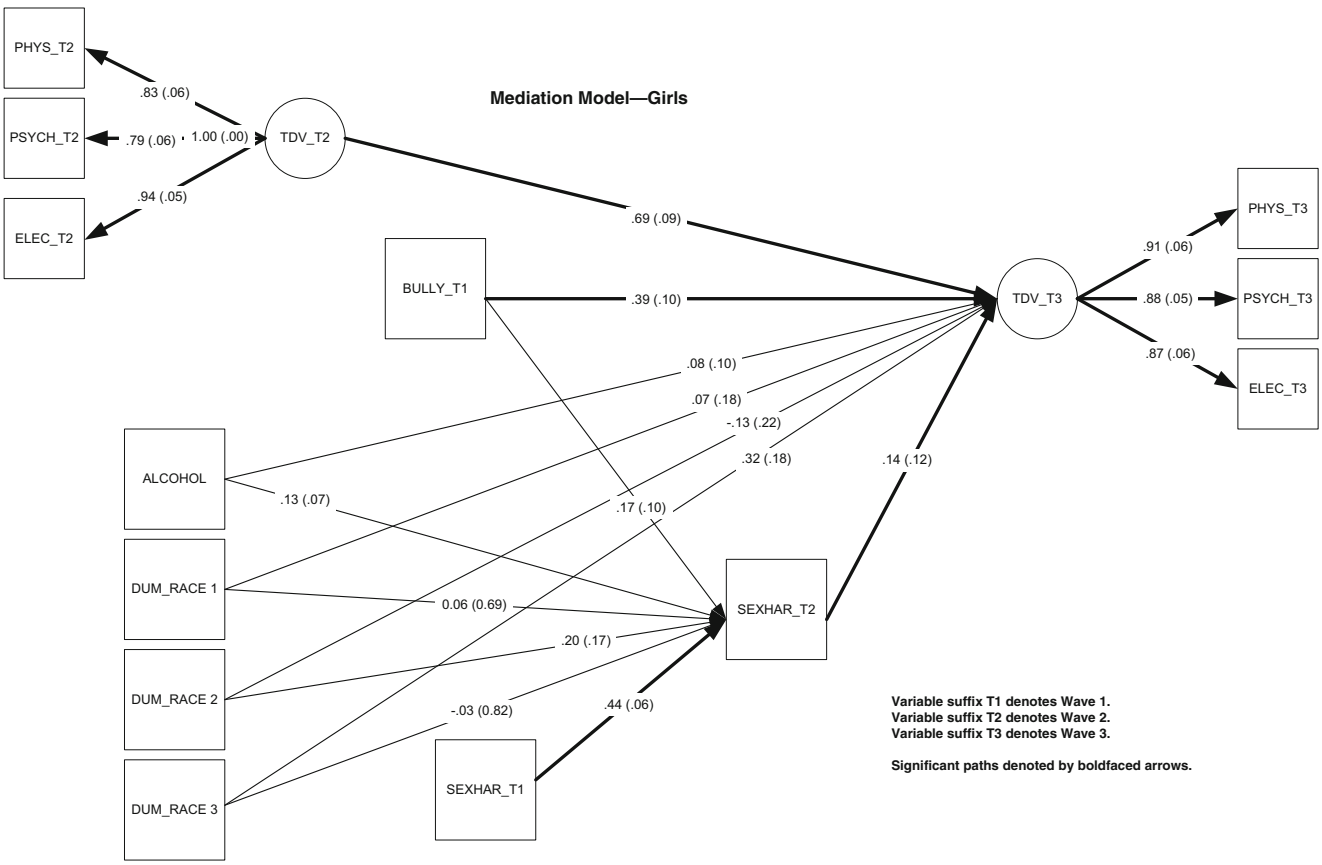
Figure 2 depicts the results of the tested mediation model for girls, with significant associations boldfaced. Bullying

Table 1 Descriptive statistics: proportions of key outcomes of interest for mediation model

Parameter estimates	Proportion overall (endorsement = yes)	Proportion girls (endorsement = yes)	Proportion boys (endorsement = yes)
Bullying (time 1)	0.750	0.765	0.735
Sexual harassment (time 1)	0.219	0.154	0.278
Alcohol use (time 1)	0.098	0.093	0.103
Physical TDV (time 2)	0.119	0.155	0.080
Psychological TDV (time 2)	0.168	0.199	0.136
Electronic TDV (time 2)	0.160	0.164	0.156
Sexual harassment (time 2)	0.250	0.190	0.310
Physical TDV (time 3)	0.105	0.106	0.103
Psychological TDV (time 3)	0.172	0.194	0.149
Electronic TDV (time 3)	0.145	0.158	0.131

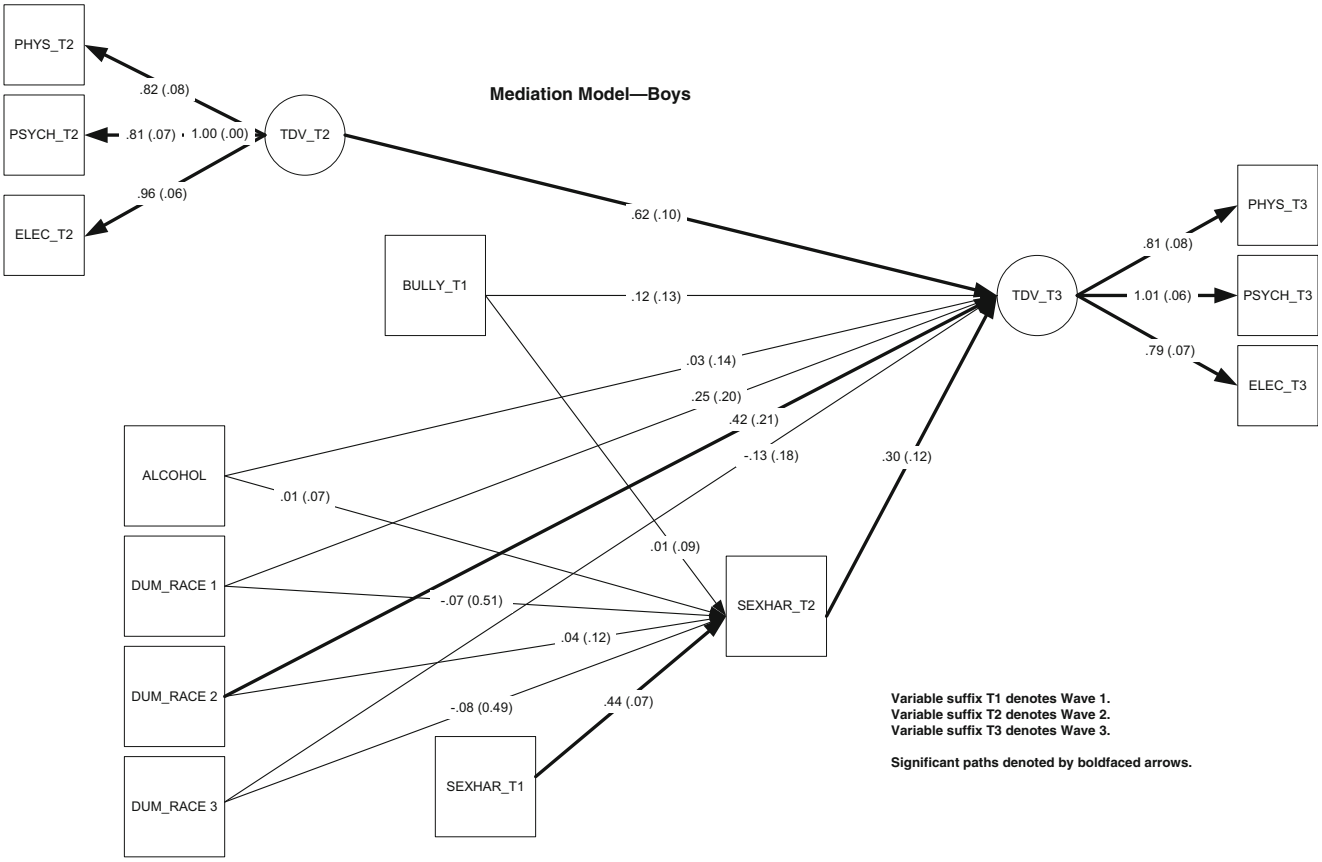
Proportions are noted for each variable at each wave included in the tested model

perpetration at time 1 was not a significant predictor of sexual harassment perpetration at time 2 ($\beta = 0.17$, SE = 0.10, $p = 0.083$), and sexual harassment perpetration at time 2 did not predict TDV perpetration at time 3 ($\beta = 0.14$, SE = 0.12, $p = 0.231$). However, bullying perpetration at time 1 was a highly significant predictor of TDV perpetration at time 3 ($\beta = 0.39$, SE = 0.10, $p < 0.001$). As expected, all autoregressive relationships were significant. The indirect effect for girls was not statistically significant (indirect effect = 0.02; SE = 0.02; CI = −0.01, 0.60; $p = 0.331$). Thus, as in the total sample, sexual harassment did not mediate the association between bullying and TDV by girls.



Note: The denotation for the numbers in the figures is **β (SE)**

Fig. 2 Results from test of moderated mediation for girls ($N = 322$)



Note: The denotation for the numbers in the figures is **β (SE)**

Fig. 3 Results from test of moderated mediation for boys ($N = 290$)

Results for Boys

Figure 3 depicts the results of the tested mediation model for boys, with significant associations boldfaced. Sexual harassment perpetration at time 2 predicted TDV perpetration at time 3 ($p = 0.009$). However, bullying perpetration at time 1 was not a significant predictor of sexual harassment perpetration at time 2 ($p = 0.867$) or of TDV perpetration at time 3 ($p = 0.342$). As expected, all autoregressive relationships were significant. The indirect effect was not statistically significant (indirect effect = 0.00; SE = 0.03; CI = −0.23, 0.39; $p = 0.868$). Thus, as in the total sample, sexual harassment did not mediate the association between bullying and TDV by boys.

Moderated Mediation (Contrast of Mediated Effects)

The nonlinear model constraint difference test statistic was not statistically significant (difference = 0.10; SE = 0.19; CI = −0.34, 0.41; $p = 0.58$). Thus, there was no significant difference in the magnitude of the indirect effect between boys and girls. As described above, the indirect effect was nonsignificant for both boys and girls.

Discussion

Despite the accelerated growth of these respective fields, no previous study has investigated sexual harassment as a mediator between bullying and TDV. Although the results from tests of mediation and moderated mediation were nonsignificant, important relationships emerged that contribute to the literature and have implications for practice.

Results in the overall sample indicate that bullying at time 1 is a significant predictor of TDV at time 3, controlling for TDV at time 2, gender, race/ethnicity, and alcohol use. This finding fills an important gap in the literature. It is consistent with recent research pointing to direct bullying as a longitudinal predictor of dating violence (Foshee et al. 2014). It is also consistent with Connolly et al. (2000) and Pepler et al. (2006) cross-sectional studies demonstrating a relationship between bullying perpetration, on one hand, and physical and psychological TDV perpetration, on the other hand. However, results from the current study extend prior research by documenting the temporal sequence of bullying perpetration as predicting TDV perpetration at a later time point, since appropriate controls have been entered into the model and since a latent second-order TDV factor was examined. Connolly et al.

(2000) and Pepler et al. (2006) cross-sectional studies do not model electronic TDV, and Foshee et al. (2014) do not model psychological or electronic TDV.

Of interest, for girls—and consistent with findings from the overall sample—bullying at time 1 predicts TDV at time 3, controlling for TDV at time 2, gender, race/ethnicity, and alcohol use. However, this relationship between bullying (time 1) as a predictor of TDV (time 3) was nonsignificant for boys. This discrepant finding between girls and boys warrants further consideration of how gender roles and norms affect the relationship between bullying and TDV. It is possible that, for boys, the very enactment of aggression may be predicated upon their masculinity, such that perpetration of aggression only holds in relationships hinging on gender-based forms of aggression (e.g., sexual harassment and TDV, and less so bullying), whereas for girls, the enactment of aggression may be more loosely connected to their gender identities. Regardless, the significant finding suggests that girls' engagement in bullying behaviors in middle school may be a red flag for engagement in TDV perpetration in later adolescence. These results signal a need for early bullying prevention programming, especially for girls, as it may offset their engagement in later TDV perpetration. In addition, this finding underscores the need for effectiveness studies that investigate the impact of bullying prevention efforts on later TDV behaviors, especially among girls. Future research should continue to probe these associations, including whether they vary by gender.

Although bullying and TDV demonstrated a significant association for girls, there was no evidence that sexual harassment mediated that relationship. Bullying perpetration as a predictor of sexual harassment perpetration was nonsignificant among girls, and sexual harassment perpetration as a predictor of TDV perpetration was also nonsignificant. The mediation hypothesis was premised upon a developmental life span perspective (Pepler et al. 2006), suggesting that myriad aggressive behaviors may manifest and persist across a variety of developmental contexts and relationships during adolescence. For girls, it is possible that sexual harassment may function differently than other types of aggression (e.g., bullying and TDV). For example, a girl may enact sexual harassment against another girl (e.g., spread sexual rumors about another girl to shame her) to marginalize the girl and thereby leverage her own social status. In other words, the motivation underlying this type of aggression (e.g., sexual harassment) may not transfer to other types of aggression (e.g., TDV) in other age-relevant developmental contexts (e.g., dating a boy). The instrument used in this study did not capture data regarding same-sex—as opposed to opposite-sex—sexual harassment. It is worth noting that this latter finding—sexual harassment does not predict TDV for girls—diverges from prior research from Chiodo et al. (2012) suggesting a relationship between sexual harassment perpetration in 9th grade and TDV perpetration in 11th grade for girls. Clearly, there is need for additional studies exploring both the meaning of and relationships between these behaviors among girls.

For boys, the relationship between sexual harassment perpetration (T2) and TDV (T3) emerged as the only significant finding in the gender-stratified model. In sum, this particular finding among boys suggests that bullying perpetration may function independently of other aggressive behaviors (e.g., sexual harassment and TDV). The discrepant finding between boys and girls here may also be attributable to the idea that gender—in this case, masculinity—is more relevant to expressions of aggression where gender plays a more obvious role, such as sexual harassment and TDV. This finding extends Ozer et al.'s person-centered, longitudinal analyses (Ozer et al. 2004) that found that, among high school boys, those who perpetrated both peer aggression and sexual aggression at baseline were more likely to perpetrate TDV at a later time. Sexual harassment perpetration (T2) and TDV (T3) was also found to be significant among the overall sample. This finding is an important contribution to the literature and fills a gap that currently exists. Although Chiodo et al. (2009) reported a significant relationship between sexual harassment victimization and TDV victimization, their particular study did not report on perpetration, as the current study does.

The nonsignificant relationship between bullying and later sexual harassment among the overall sample adds complexity to prior research documenting a relationship between bullying and sexual harassment among an *overall* sample (DeSouza and Ribeiro 2005; Espelage et al. 2015; Pellegrini 2001; Pepler et al. 2006), as well as research pointing to bullying perpetration and sexual violence perpetration among an overall sample, which includes but is not limited to sexual harassment perpetration (Espelage et al. 2012). It is possible that the current study's divergent findings may be partially attributable to its focus on a middle school sample, as opposed to a high school sample (DeSouza and Ribeiro 2005; Espelage et al. 2015; Pellegrini 2001; Pepler et al. 2006). DeSouza and Ribeiro (2005) sample was also Brazillian. Although the other three studies focused on middle school samples (Espelage et al. 2015; Espelage et al. 2012; Pellegrini 2001), none of the studies include alcohol use as a control variable. Pellegrini (2001) also employed different bullying measures than this current study, and it is unclear whether that study included baseline sexual harassment as a control variable. Future studies should continue to probe this relationship, ideally with congruent measures and methodologies. Prior research examining the measurement properties of youth violence perpetration and victimization suggests that boys and girls generally respond to items in a similar fashion (i.e., exhibit measurement invariance, Cutbush and Williams, 2016). Consequently, the differences in relationships observed in this study are unlikely to be an artifact of measurement differences by gender.

This study has several limitations. The sample is not nationally representative, and participation rates were low; thus, findings are not generalizable to all middle school students. Self-reported aggression may be underreported in these data due to sensitivity about these behaviors. Further, the measures used in this study, specifically the sexual harassment perpetration measure, may be outdated in light of recent technological advances; for example, one item includes the stem, "wrote sexual messages about someone on bathroom walls, locker rooms, or blackboards." Such items may fail to capture more common experiences of sexual harassment (e.g., posted sexual messages about someone on a social networking site). In addition, the measures did not capture data on the gender or sexual identity of the perpetrator or victim and its salience for the relationship under study. This likely matters (Espelage and Holt 2001; Gruber and Fineran 2016), per the prior suggestion regarding same-sex—as opposed to opposite-sex—sexual harassment.

Despite these limitations, the study contributes to the extremely limited body of research investigating the relationships among TDV, sexual harassment, and bullying, especially among middle school students. Key strengths of this study are its longitudinal design and an analysis strategy aimed at appropriately controlling for temporality. In addition, all aggression measures used in mediation and moderated mediation analyses demonstrated appropriate measurement invariance by gender, thereby increasing confidence in the validity of study results. Further, this study contributes to the development of more integrated youth violence prevention programs—which tend to focus on bullying, *or* sexual harassment, *or* dating violence—by offering a more sophisticated, integrated understanding of relationships among myriad types of relationship aggression among youth.

The findings highlight a complicated set of behaviors that must be sorted out in order to dovetail prevention programming efforts aimed at ameliorating aggressive behaviors among youth. Future studies within TDV, sexual harassment, and bullying fields should continue to probe this set of relationships under investigation, including the role of gender and sexual identities—either to cross-validate these findings or refute them. The results have important public health implications for prevention programming and underscore the need for cross-pollination among these respective fields.

Compliance with Ethical Standards

Funding N/A.

Conflict of Interest The authors declare 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 Helsinki Declaration and its later amendments or comparable ethical standards. This article does not contain any studies with animals performed by any authors.

Informed Consent Informed consent was obtained from all individual study participants.

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