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In Search of Teen Dating Violence Typologies

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Abstract

Purpose—The goal of the present research was to identify distinct latent classes of adolescents that commit teen dating violence (TDV) and assess differences on demographic, behavioral, and attitudinal correlates.

Methods—Boys and girls (N = 1,149; M_{age} = 14.3; Grades 6–12) with a history of violence exposure completed surveys assessing six indices of TDV in the preceding 3 months. Indices of TDV included controlling behaviors, psychological TDV, physical TDV, sexual TDV, fear/intimidation, and injury. In addition, adolescents provided demographic and dating history information and completed surveys assessing attitudes condoning violence, relationship skills and knowledge, and reactive/proactive aggression.

Results—Latent class analysis indicated a three-class solution wherein the largest class of students was nonviolent on all indices (“nonaggressors”) and the smallest class of students demonstrated high probability of nearly all indices of TDV (“multiform aggressors”). In addition, a third class of “emotional aggressors” existed for which there was a high probability of controlling and psychological TDV but low likelihood of any other form of TDV. Multiform aggressors were differentiated from emotional and nonaggressors on the use of self-defense in dating relationships, attitudes condoning violence, and proactive aggression. Emotional aggressors were distinguished from nonaggressors on nearly all measured covariates.

Conclusions—Evidence indicates that different subgroups of adolescents engaging in TDV exist. In particular, a small group of youth engaging in multiple forms of TDV can be distinguished from a larger group of youth that commit acts of TDV restricted to emotional aggression (i.e., controlling and psychological) and most youth that do not engage in TDV.

Keywords

Teen dating violence; Intimate partner violence; Latent class analysis; Typology

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Intimate partner violence (IPV) and its suspected precursor, teen dating violence (TDV), are a substantial public health problem in the United States. Recent estimates from the National Intimate Partner and Sexual Violence Survey suggest that 27% of women and 12% of men in the United States have experienced IPV with one or more associated negative impacts (e.g., fear, injury, post-traumatic stress symptoms, depression, substance use) in their lifetime [1]. On the Youth Risk Behavior Survey, 21% of female and 10% of male adolescents reported having experienced some form of physical and/or sexual TDV in the past 12 months [2].

Despite an accumulation of research, results from studies across the various domains of IPV/TDV research (e.g., etiology, risk and protective factors, primary prevention, secondary prevention) are often mixed and difficult to reconcile. However, one evident pattern is that we currently have few effective strategies to prevent or reduce violence in intimate relationships among *adults* [3,4], suggesting a need to start prevention efforts earlier in the life course [5]. The primary prevention of TDV has emerged as a public health focus because of the potential for persistent and severe sequelae and because adolescence is a critical developmental period relevant to onset, escalation, and persistence of relationship violence into adulthood [6–8]. However, the few extant programs shown to be efficacious for TDV prevention have generally proffered modest effects [9,10] or reduced opportunity rather than propensity for TDV [11]. If we can more explicitly identify and measure disparate types of relationship violence, we can be more precise about the types of relationship violence our interventions are able to prevent. Thus, we will be able to develop, test, disseminate, and implement successful prevention strategies for IPV/TDV with greater proficiency and efficiency.

A number of researchers have suggested that IPV/TDV comprises a series of vastly disparate violent events perpetrated by diverse subtypes of people under varying contextual factors [12–17]. It is therefore important to parse out these differences to more effectively frame prevention efforts. Although there have been various attempts to explicate different forms of IPV or identify typologies or classes of perpetrators in adult relationships [12–17], there have been relatively few attempts to parse TDV. Messinger et al. [18] used cluster analytic methods to identify subgroups of TDV offender/victims in a sample of adolescent girls. A particularly pertinent finding was that adolescent relationships characterized by a high degree of controlling behavior involved more frequent acts of physical violence and fear of the controlling partner [18]. Diaz-Aguado and Martinez [19] conducted a latent class analysis (LCA) on a probability sample of adolescent boys in Spain. In addition to a class of nonviolent boys, these authors found three classes comprising a group of boys who isolate and control their partners, a group that exerts only medium-level emotional abuse, and a group of boys who frequently engage in all types of violence.

The present research expands on the previous investigations by seeking to identify the existence of unique classes who report engaging in acts of TDV among both male and female adolescents. In addition, we seek to identify covariates that may elucidate the factors that contribute to membership in differing latent classes. Importantly, TDV in high-risk populations has been under-researched [20]. In the present research, we examine offending in a sample of adolescents who are at high risk based on prior exposure to violence in the

home and/or community. Thus, these youth may have greater need for, and be more likely to benefit from, intervention.

Methods

Participants and procedures

The current data are derived from the baseline assessments of adolescents participating in an evaluation of the Expect Respect TDV prevention program (see Ball et al. [21] for details). Participants were 1,149 sixth to 12th grade students ($M_{age} = 14.3$; standard deviation = 1.6, Range = 11–17) from 35 schools in Texas referred by school counselors or social workers. The sample was 62.1% female ($n = 713$) and 37.9% male ($n = 436$). Participants were racially and ethnically diverse with 53.5% identifying as Hispanic/Latino ($n = 615$), 16.3% African-American ($n = 187$), 12.7% non-Hispanic/white ($n = 146$), 12.9% multiracial ($n = 148$), 3.7% “other” ($n = 43$), and 10 (.8%) did not respond.

During an initial intake, students' history of exposure to violence (i.e., being the witness, victim, or perpetrator of dating violence, peer violence, domestic violence, child abuse, or some other form of violence in the home or community) was assessed via semistructured interview. Students that verbally endorsed at least one type of violence exposure at any point during their life were eligible to participate in the study. Most students (73%) reported exposure to multiple forms of violence. Students were informed that all information would be confidential except for disclosures of child abuse, homicidal, and/or suicidal threat, which were reported to the appropriate agencies specified by law.

Data were collected between 2011 and 2013 via paper-and-pencil surveys. Passive consent forms were mailed to the home at the time of referral, and parents/guardians were able to opt out either by mail or by phone. During an initial intake interview, facilitators explained the confidentiality policy and mandatory reporting requirements to students who then provided written assent before participating. All procedures for the study were approved by the institutional review board at the Centers for Disease Control and Prevention and by the participating school districts.

Measures

Copies of all measures can be obtained from the lead author.

Demographics—Students responded to items indicating gender, age, ethnicity, and history of dating partners.

Teen dating violence perpetration—Questions from the Conflict in Adolescent Dating Relationships Inventory [22] and the Safe Dates TDV scales [9] were adapted and combined with supplementary items to assess the presence or absence of six dimensions of TDV perpetration. The six indices of TDV were (1) five controlling behavior items (e.g., “I did not let my partner do things with other people”), $\alpha = .70$; (2) eight psychological TDV items (e.g., “I yelled and screamed at my partner”), $\alpha = .72$; (3) five physical TDV items (e.g., “I hit my partner with a fist or a hard object”), $\alpha = .76$; (4) six sexual TDV items (e.g., “I grabbed or touched my partner's private parts without their consent”), $\alpha = .69$; (5) two fear/

intimidation items (e.g., “My partner was afraid of me”), $\alpha = .56$; and (6) three injury items (e.g., “My partner went to a doctor or nurse because of an injury”), $\alpha = .75$. Students rated the presence of each item from 0 (Never) to 3 (Often) for each of the indices for all dating relationships that occurred in the preceding 3 months. A dating relationship was defined as occurring with a “boyfriend or girlfriend, someone you go out with or hang out with in a romantic way, or someone you hook up with.” Responses were summed and dichotomized for each TDV index, with a value of 2 or more indicating the presence of TDV and 0 or 1 indicating no TDV for that index.

Self-defense—Students answered one question about the use of self-defense in their dating relationship during the preceding 3 months. Response options for “I used physical force to protect or defend myself ranged from 0 (Never) to 3 (Often).

Acceptance of dating violence—Students completed eight items ($\alpha = .92$) from the Safe Dates scales [9] assessing acceptance of violence in dating relationships. Six of the items ($\alpha = .96$) assessed acceptance of violence against girls (e.g., “Girls sometimes deserve to be hit by the boys they date”), and two of the items ($\alpha = .60$) assessed acceptance of violence against boys (e.g., “Boys sometimes deserve to be hit by the girls they date”). Response options ranged from 0 (Strongly Disagree) to 3 (Strongly Agree).

Lack of insight—Thirteen questions ($\alpha = .80$) were developed for the Expect Respect evaluation to assess levels of insight or awareness about the unhealthy nature of certain relationship behaviors. Respondents were asked “Is it okay if you do these things in a relationship?” Sample items included the following: (1) “Put your partner down and call him/her names;” (2) “Make your partner dress a certain way;” and (3) “Kiss your partner when they say no.” Response options ranged from 0 (Definitely not okay) to 3 (Definitely okay).

Healthy relationship behaviors—A set of nine questions ($\alpha = .83$) adapted from the Conflict in Adolescent Dating Relationships Inventory [22], Safe Dates scales [9], and Inventory of Interpersonal Problems Assertiveness scale [23] was administered to assess the use of positive conflict resolution behaviors in dating relationships (e.g., “I calmed myself down before talking when I was mad,” “I talked to my partner about how I really felt,” “I listened to my partner's side of the story”). Students reported how frequently they used these behaviors with response options ranging from 0 (Never) to 3 (Often).

Reactive—proactive aggression—Aggression independent of dating relationships was measured with the Reactive—Proactive Aggression Questionnaire [24] comprising 11 reactive aggression items (e.g., “Gotten angry or mad or hit others when teased”; $\alpha = .85$) and 12 proactive aggression items (e.g., “Hurt others to win a game”; $\alpha = .85$). Response options ranged from 0 (Never) to 3 (Often). Because the two scales are highly correlated ($r = .64$; $p < .001$), we partialled out the shared variance by regressing the scales on one another and saving the residuals. The residualized reactive and proactive aggression indices are variances independent of one another and, as such, reflect potentially more “pure” or distinct measures of each construct. (See Lynam et al. [25] for a review of this procedure and its limitations.)

Data analysis

LCA was employed to identify latent groups of adolescents based on the six categorical indicators of TDV perpetration. All analyses were performed with Mplus version 7.3 (Muthén & Muthén, Los Angeles, CA) controlling for clustering of data within schools. By default, Mplus utilizes full information maximum likelihood to deal with missing data. The primary goal of LCA was to maximize the homogeneity within groups and maximize the heterogeneity between groups. Each case entered into the LCA model receives a probability of membership for each class; class assignment is based on the highest probability. Each class yields a probability profile in which the likelihood of each of the six forms of TDV being present is estimated. The number of classes is guided by theory and the use of comparative fit indices across models with sequentially increasing numbers of classes [26,27].

To evaluate the best-fitting model, we used the Akaike information criterion (AIC), the sample size-adjusted Bayesian information criteria (aBIC), the Vuong-Lo-Mendell-Rubin likelihood ratio test (LMR), and the bootstrapped likelihood ratio test (BLRT) to determine the optimal number of classes among girls and boys [26,27]. The best-fitting most parsimonious models are those that minimize the AIC and aBIC and for which adding an additional class leads to a worsening of fit as indicated by the LRT and BLRT [26]. We also report relative entropy values and average posterior probabilities. Entropy indicates the model's relative precision in classifying all individuals in the sample across classes; values nearest to one indicate the best classification [27]. However, because classification error may increase by chance for models with more latent classes, it is not appropriate to use this parameter as a part of the model selection process during class enumeration [26]. The average posterior probabilities provide class-specific measures of how well the set of indicators predict class membership in the sample. Values $>.70$ suggest that the latent classes are well separated, and class assignment accuracy is adequate [28].

We conducted the analysis in three stages. In the first stage, we identified the optimal class solution with the six TDV indicators. In the second stage, we added gender as a seventh categorical indicator and repeated the LCA. A lack of substantive change in class profiles when gender is added as an indicator would suggest that the classes are stable across gender. A significant shift in classes would suggest a potential need to estimate classes separately by gender. In the third and final stage of analysis, using the identified optimal class solution(s), we tested the association between class membership and mean levels of the covariates using the modified BCH three-step method [29]. This method accounts for classification error in the class assignment and adjusts the parameter estimates accordingly for means and standard errors within each class [29]. In addition, an omnibus χ^2 with $C-1$ *df* and pairwise contrasts χ^2 with 1 *df* are provided for each of the covariates.

Results

In the first stage of analysis, a series of latent class models ranging from one to five classes were estimated. Table 1 displays the fit indices for the model solutions. The class enumeration process revealed a drop in both fit indices from two to three classes, and both the LMR and BLRT χ^2 tests were significant, indicating three classes fit the data better than

two. Adding a fourth class, proffered discrepant fit indices; although the AIC continued to drop and the BLRT χ^2 remained significant for each, the aBIC stayed the same or increased and the LMR χ^2 was nonsignificant. However, examination of profile plots indicated that adding a fourth and fifth class did not add substantively interpretable classes. We therefore determined that the most parsimonious model was the three-class solution. The average probabilities for the most likely class membership were .94, .90, and .70, with a relative entropy of .76. Figure 1 displays the estimated probability of each type of TDV behavior occurring among each of the three classes.

The largest class of boys and girls comprising approximately two thirds of the sample had a low probability of all forms of TDV perpetration and were thus dubbed the nonaggressor class. The next largest class, almost 30% of the sample, had a high probability of perpetrating controlling and psychological aggression. We therefore refer to this class as the emotional aggressor class. The final and smallest class represented the most severe adolescents, demonstrating a high probability of controlling, psychological, physical, and sexual perpetration and a moderately high probability of fear/intimidation and injury. This class is labeled the multiform aggressors.

In the second stage of analysis, we repeated the LCA process adding gender as an indicator. Results of the enumeration process indicated again that the three-class solution was ideal based on fit indices, substantive interpretation, and parsimony. As illustrated in Figure 2 and Table 1, the addition of gender did not change the classification probability profiles or relative class sizes (i.e., percentages of students in each class) suggesting that the presence of the three-class solution of multiform aggressors, emotional aggressors, and nonaggressors is constant across genders. Moreover, the addition of gender reduced classification entropy from .76 to .65. This is likely because boys and girls had an equal probability of being in the multiform (49.2% girls, odds ratio [OR] = .97; *ns*) and nonaggressor class (51.0% girls, OR = 1.04; *ns*); classification is more difficult when conditional probabilities of indicators are near or equal to .5 (i.e., chance). However, girls were more likely to be members of the emotional aggressor class than were boys (74.4% girls, OR = 2.91; $p < .001$).

In the final stage of analysis, we tested mean differences among the classes on attitudes about violence, aggressive behavior, and demographic characteristics. There were no differences among any of the classes on age, number of past dating partners, or reported use of healthy relationship behaviors. The multiform aggressor class was distinguished from the emotional aggressor class on the frequency of self-defense, acceptance of dating violence, and residualized proactive aggression. The emotional aggressors were distinguished from nonaggressors on the frequency of self-defense, acceptance of dating violence, lack of insight about unhealthy relationship behaviors, and both raw score and residualized indices of reactive and proactive aggression (Table 2).

Discussion

The present findings suggest that boys and girls who engage in acts of dating violence embody distinct groups of adolescents. For boys and girls alike, we identified a large class comprising most youth that had a low probability across all indices of TDV (i.e., the

nonaggressor class). It is reassuring that even in this high-risk sample, most adolescents were not engaged in dating violence. This group may be ideal for bystander training given the presence of TDV within their peer groups. In addition, the emotional aggressor class, comprising approximately one quarter of students, demonstrated a high probability of controlling behavior and psychological TDV only. The presence of this emotional TDV group is not insignificant, as emotional abuse in intimate relationships is associated with negative health outcomes and increased health care utilization [30]. Girls and boys in the multiform class had a higher probability of all indices of TDV. Notably, this group was a minority representing approximately 3% of the sample, which is generally consistent with criminological literature indicating roughly 5% of the population commits most severe violence [31,32]. It is also important to note that both boys and girls in the multiform class reported the highest frequency of TDV victimization, as evidenced by their reported self-defense. This finding suggests that violence in their dating relationships may be bidirectional and potentially similar to the common couple violence that has been noted in adult samples [16].

It is possible that addressing partner violence by typology or classes as we determined here would greatly facilitate the development of better and more targeted preventive interventions. Those who commit acts of relationship violence and the victims of such violence represent significantly diverse groups with a multitude of precipitating and exacerbating factors. For example, Foshee et al. [33] conducted in-depth interviews with adolescents who endorsed perpetrating dating violence and found that there were widely varying motives, precipitating events, and histories of violence. In the present sample, the most severe class of offenders was distinguished from their peers not only on self-defense but also on their attitudes condoning violence. They did not differ in age, number of dating partners, lack of insight about negative relationship behaviors, or even the use of positive conflict resolution strategies. However, they endorsed attitudes significantly more accepting of the use of violence in dating relationships. It is, perhaps for this reason, not surprising that this group also scored significantly higher on the use of proactive aggression. Proactive aggression is a relatively less common form of aggression suggestive of greater dysfunction and committed absent of the anger that typically drives violence [34]. The use of such acts of aggression in the absence of strong emotion, such as anger, is consistent with attitudes that condone violence.

Embracing the idea that there may be different typologies of TDV with different etiologies and potentially distinct treatment approaches has the potential to advance not only our definitions and understanding of TDV but also our development and assessment of prevention strategies. Moreover, this work may inform the accurate identification of IPV typologies and consequent development of effective prevention strategies currently lacking for adults [3,4]. For example, anger management or behavioral therapy may theoretically lessen emotional abuse perpetration. Conversely, those who perpetrate multiple types of TDV may need a more comprehensive prevention approach. However, there has not been much objective support for these treatments possibly because these distinct classes of individuals have not been distinguished in study samples.

Other typologies [16,18] have demonstrated severe, unidirectional perpetration. Our data suggest that the most severe perpetrators were also the most severe victims. It is important to consider that these unidirectional typologies may emerge over time and the current multiform class could progress into more intimate terrorism [16] when coupled with other risk behaviors. In addition, as the field begins to focus on shared risk and protective factors for violence, it is important to consider the nuances of these subgroups when looking at effectiveness and outcomes of interventions. For example, Swartout et al. [35] examined adolescent to emerging adult males and perpetration of sexual violence. They found four trajectories of perpetration: stable low, stable moderate, decreasing, and increasing. Thus, for some youth, it may be developmentally normal to transition from more to less aggressive dating behaviors as they learn to cope with and manage dating relationships. Miller et al. [36] used latent transition analysis (LTA) to examine longitudinal profiles of youth who engaged in TDV, bullying, and sexual harassment and found that class membership was relatively stable over time. However, when adolescents did transition from one class to another, they generally moved from a more severe to a less severe class. Williams et al. [37] used LTA to examine whether individuals changed classes as a function of their participation in the Start Strong initiative. Although aggregate outcome evaluation suggested no treatment effect for Start Strong, LTA indicated that in the treatment condition, there was a greater likelihood of students' transitioning from a more problematic to a less problematic class over time.

Notably, we have only adolescents' self-reports regarding their relationship behaviors, which may not accurately reflect real-world behaviors and their prevalence rates. In addition, TDV is a dyad-dependent characteristic of each relationship and therefore would be better understood by assessing both partners to explicate any potential reciprocal nature of TDV within specific relationships. Unfortunately, this option was not feasible with the present population. Nevertheless, the present research adds to our understanding of dating violence in a high-risk sample, and these results may have pertinent implications for understanding TDV and tailoring prevention efforts among different groups of teens.

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Disclaimer: The findings and conclusions in this report are those of the author(s) and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

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Implications and Contribution

This information provides valuable understanding of teen dating violence in high-risk populations of youth and may be useful in tailoring prevention efforts to different groups of teens.

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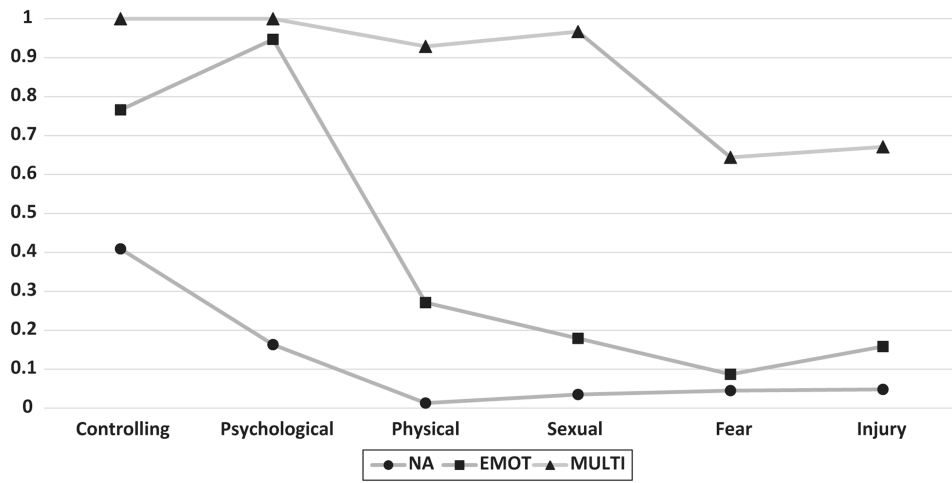


Figure 1. Profile plots of conditional probabilities of TDV perpetration by latent class. EMOT = emotional TDV perpetration class; MULTI = multiform TDV perpetration class; NA = Nonaggressive class.

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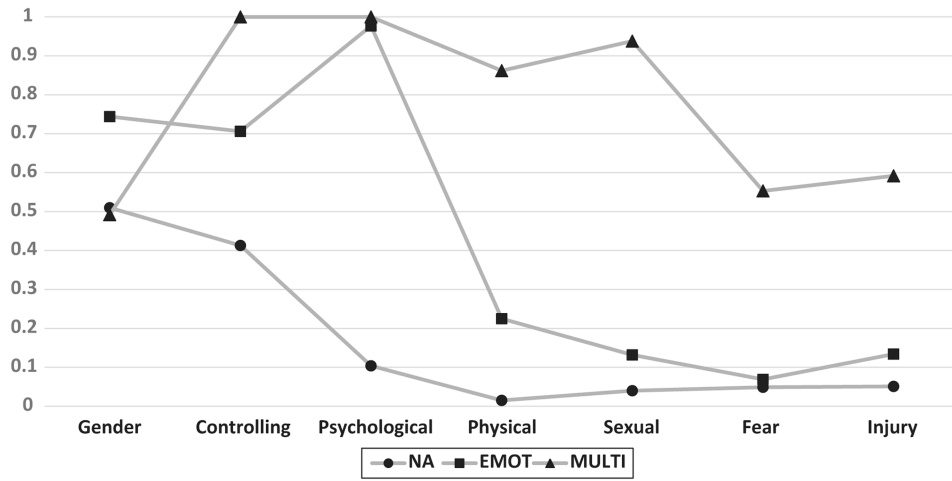


Figure 2. Profile plots of conditional probabilities of TDV perpetration by latent class with gender added as an indicator.

Table 1
Diagnostic indices for latent class enumeration and class allocation for the three-class solution

Number of classes	AIC	aBIC	LMR α	BLRT α	Entropy	Class	N	%
Without gender								
2	5,400	5,424	.000	.000	.77	Multi	37	3.2
3	5,354	5,391	.024	.000	.76	Emot	309	27.4
4	5,341	5,391	.068	.000	.71	NA	783	69.4
5	5,336	5,399	.309	.030	.86			
With gender								
2	7,697	7,731	.000	.000	.62	Multi	72	4.3
3	7,632	7,684	.043	.000	.65	Emot	494	29.2
4	7,600	7,670	.288	.000	.53	NA	1,126	66.5
5	7,594	7,682	.181	.040	.55			

Because full information maximum likelihood was utilized to handle missing data, the addition of gender as a seventh indicator in the latent class model increases the available sample size from 1,129 to 1,692.

AIC = Akaike information criteria; aBIC = sample size-adjusted Bayesian information criteria; BLRT = bootstrap likelihood ratio test; Emot = emotional aggressor class; LMR = Lo-Mendell-Rubin likelihood test; Multi = multifactor aggressor class; NA = nonaggressor class.

Table 2
Means, standard errors, and mean comparisons of covariates by class

	Multi		Emot		NA		Omnibus, χ^2 (2)	Multi vs. Emot, χ^2 (1)	Multi vs. NA, χ^2 (1)	Emot vs. NA, χ^2 (1)
	M	S.E.	M	S.E.	M	S.E.				
Age	14.01	.52	14.66	.14	14.37	.06	4.59	1.58	.49	3.57 [†]
Self-defense	1.76	.25	.48	.06	.23	.03	54.35 ^{***}	23.39 ^{***}	36.53 ^{***}	14.17 ^{***}
Dating partners	3.16	.16	3.20	.09	3.06	.04	1.96	.04	.44	1.64
AoV	9.46	1.58	3.99	.41	2.89	.19	23.30 ^{***}	11.67 ^{***}	18.21 ^{***}	5.54 [*]
VAB	3.17	.36	2.00	.14	1.50	.07	49.61 ^{***}	7.73 ^{**}	23.61 ^{***}	10.24 ^{***}
VAG	6.20	1.19	1.97	.36	1.38	.12	28.46 ^{***}	10.07 ^{***}	17.22 ^{***}	2.59
LOI	12.47	3.75	8.34	.33	3.80	.14	144.90 ^{***}	1.22	5.47 [*]	137.32 ^{***}
Healthy behavior	19.96	5.28	20.07	.56	19.48	.27	.96	.00	.01	.82
Reactive	21.43	5.56	19.19	.59	12.78	.29	85.29 ^{***}	.16	2.45	82.84 ^{***}
Pure reactive	.35	1.60	2.64	.36	-.46	.25	39.82 ^{***}	1.97	.25	39.65 ^{***}
Proactive	13.47	4.30	7.17	.44	3.42	.20	62.47 ^{***}	2.17	5.78 [*]	46.78 ^{***}
Pure proactive	4.74	1.42	.52	.30	-.24	.12	17.49 ^{***}	8.19 ^{**}	12.16 ^{***}	5.03 [*]

AoV = acceptance of dating violence; Dating partners = number of past dating partners; Emot = emotional aggressor class; Healthy behavior = healthy conflict resolution behaviors; LOI = lack of insight; M = mean; Multi = multiform aggressor class; NA = nonaggressor class; Proactive = proactive aggression; Pure proactive = residualized proactive aggression; Pure reactive = residualized reactive aggression; Reactive = reactive aggression; S.E. = standard error; VAB = acceptance of dating violence against boys; VAG = acceptance of dating violence against girls.

* $p < .05$;

** $p < .01$;

*** $p < .001$;

[†] $p < .10$.