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Advocating for my Relationships: Youths' Understanding of Healthy Dating Balance, Staying Safe, and Bystander Behaviors

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Abstract

This study presents data from a program evaluation of Advocating for My Relationships (ADMYRE), a school-based teen dating violence (TDV) prevention program. This study examined adolescents' ability to identify and their understanding of healthy relationship balance, personal safety, and bystander behavior as part of the state based program. The program evaluation examined (a) baseline levels of youth knowledge across core program content areas (healthy relationship balance, staying safe, and bystander behaviors) to assess educational need; (b) associations between youth knowledge and school-level socioeconomic and academic characteristics to contextualize program targeting; and (c) changes in knowledge following program participation. Participants included 338 students (grades 7–12; 50% female; 83.7% White; 64.8% ninth grade) who completed scenario-based surveys before and after participating in a school-based prevention program, Advocating for My Relationships (ADMYRE). Results showed high TDV identification rates but relatively lower understanding of balance, safety, and bystander strategies. School-level indicators, including socioeconomic disadvantage and academic performance, were associated with differences in baseline knowledge, highlighting the relevance of contextual factors for prevention planning. Following program participation, overall TDV knowledge and knowledge of each focal content area increased. Findings suggest the potential utility of assessing nuanced TDV knowledge as part of program evaluation, the potential importance of school context in identifying prevention needs, and initial support for the utility of the ADMYRE programming to increase youth understanding of key relational skills targeted by contemporary TDV prevention theory.

Introduction

Teen dating violence (TDV) is a growing public health concern with significant negative consequences in development (Piolanti et al., 2023; Campo-Tena et al., 2024). Dating violence includes behaviors that cause physical, sexual, or psychological harm in intimate relationships, such as physical aggression, manipulation, sexual coercion, and psychological abuse (Ali et al., 2016). Experiencing TDV poses risks to youths' inter- and intra-personal development, such as continuing the cycle of partner violence in adulthood (Clare et al., 2021), current and future re-victimization (Piolanti et al., 2023; Campo-Tena et al., 2024), and links to health and mental health indicators (Piolanti et al., 2023). While effective programs exist to reduce perpetrating physical relationship abuse (Temple et al., 2021) and youth are able to identify extreme forms of relationship violence, nuanced data on their understanding of TDV topics is needed. Moreover, schools have become a primary setting for prevention efforts, given their access to youth during key developmental periods and their role in promoting social and emotional learning. From a program planning and evaluation perspective, understanding what youth already know and where gaps remain may be useful for determining whether prevention programming is warranted, what content should be emphasized, and which school contexts may benefit most from implementation.

Theoretically, many forms of dating violence (e.g., sending naked pictures or physical violence) are more easily identified by youth. However, descriptive data on youths' understanding of more nuanced aspects of healthy relationships is less well documented. Understanding relationship balance may be a challenge for younger teens. The peak age of adolescent physical TDV may be at or before ages 15 or 16 for females and at or before age 18 for males, though other findings indicate no age differences among adolescents for physical TDV perpetration (Wincentak et al., 2017). Teenagers in focus groups have also indicated that healthy relationships should include respect, honesty, and genuineness (Guzman et al., 2009). They value the idea of being friends with a potential partner, assessing their compatibility, and emphasizing emotional connection over attractiveness before being in a romantic relationship (Adams & Williams, 2011). However, many teens may not have a clear understanding of healthy relationships, as they often struggle to recognize abusive behaviors in their relationships (Brar et al., 2023). Youth may not recognize certain behaviors as violent, such as dictating who partners can be friends with, giving a partner the "silent treatment" when angry, or physical or verbal abuse, instead perceiving these behaviors as acceptable (Hertzog & Rowley, 2014). Similarly, jealousy and controlling behaviors may be misinterpreted as an investment in the relationship (Brar et al., 2023; Hertzog & Rowley, 2014).

Attitudes toward dating violence, influenced by TDV acceptance or traditional gender roles, may also impact teens' ability to recognize healthy balance in their relationships. However, findings about how attitudes affect TDV victimization vary by gender. For example, Reed et al. (2011) found that attitudes toward dating violence are commonly associated with increased rates of male-perpetrated TDV against females. Yet, Hunt et al. (2022) found that the acceptance of gender inequality led to higher rates of female-perpetrated physical TDV against males. There is also variation in healthy balance knowledge when accounting for racial/ethnic identity, as demonstrated by Karlsson et al. (2018). Their study sampled an ethnically diverse sample of participants enrolled in 9th and 10th grades and found that African American teenagers demonstrated more acceptance of TDV and, subsequently, had a higher rate of victimization than White or Hispanic teens (Karlsson et al., 2018).

Gender differences have also been found in studies examining how to stay safe in romantic relationships. Specifically, a phenomenological study examining gender differences demonstrated that females would benefit from learning how to advocate for themselves, and males would benefit from learning how to manage stress and regulate their emotions (Taylor et al., 2021). Focus groups conducted by Adams and Williams (2011) also indicated gender-specific suggestions for staying safe, with girls recognizing the challenges of balancing emotions and prioritizing themselves over their relationships. Regarding racial/ethnic differences, Padilla-Medina et al. (2022) determined, based on a systematic literature review, that African American and Latino youth most commonly seek help from informal sources, like family members or peers, to stay safe in romantic relationships. However, the systematic review could not compare these findings to other racial/ethnic groups, as the studies examined included mostly, if not wholly, African American or Latino participants (Padilla-Medina et al., 2022). Thus, it is unclear if there are racial/ethnic differences in youths opting for formal support, such as from healthcare professionals or law enforcement.

Although youths want to help friends in TDV situations, they often lack practical intervention skills (Casey et al., 2017). Bystander behaviors for bullying may not work for dating violence due to its nuanced nature (Casey et al., 2018), especially if youths are trying to help friends end a relationship involving TDV. Teens are more likely to leave unhealthy relationships with support from friends, family, or community members (Helm et al., 2017). The decision to

leave is often complex (Brar et al., 2023; Helm et al., 2022), and social support reduces isolation, a common trait of unhealthy relationships (Haggerty et al., 2022). However, school-based TDV prevention programs can change attitudes and encourage bystander support (Foshee et al., 1998; De La Rue et al., 2017). Programs like Advocating for My Relationships (ADMYRE) help youth recognize unhealthy relationships and develop healthy relationship skills, while primary prevention programs educate them on how to avoid violence (McCurdy et al., 2025). Bystander programs increase awareness and willingness to intervene (Storer et al., 2015). Research is needed to understand their impact on youths' attitudes and behaviors and determine if there are variations in bystander behavior knowledge. Thus, data on teen perspectives of balancing time in relationships, staying safe, and effective TDV bystander behaviors will add to our understanding of age, gender, and racial/ethnic variation.

School climate, or "the quality and character of school life," including the values, goals, relationships, structures, and standards within a school (National School Climate Center, 2007), may also be related to TDV knowledge. School characteristics that significantly impact student knowledge include school cohesion (also known as positive school climate), attachment, and commitment (Kutsyuruba et al., 2015; Berkowitz et al., 2017). However, schools labeled as "disadvantaged" tend to lack the climates of more privileged schools (Banjeree, 2016). School disadvantage is most commonly measured by the rate of students enrolled in the Free and Reduced-Price Lunch (FRPL) program, identifying schools with higher rates of students from low socioeconomic (SES) backgrounds (Spiegel et al., 2024). Thus, schools are more likely to be identified as disadvantaged when they serve communities with a larger presence of minorities, lower income rates, and urban communities (Torres, 2019), which may demonstrate lower school performance scores (Etim et al., 2022) and might benefit from more education regarding healthy relationships.

To summarize, teens' knowledge of balancing relationships, how to stay safe, and bystander behavior for TDV is less well understood but may provide useful avenues for prevention. Assessing these domains can help identify baseline educational need, clarify where prevention content may be most impactful, and generate transferable lessons for others implementing school-based programming under typical real-world conditions. Accordingly, this study aimed to provide an initial, evaluation-oriented examination of youths' understanding of healthy balance, staying safe, and bystander behaviors in relation to other TDV concepts. We expected that more overt behaviors (e.g., sharing intimate photos) would be more readily identified as problematic than more nuanced constructs emphasized in prevention curricula. We also examined whether knowledge varied by grade, gender, race, and school characteristics, as such variation has implications for program targeting, adaptation, and dissemination. Based on prior literature, we hypothesized that older participants (Piolanti & Foran, 2021), female participants (Wincentak et al., 2017), White participants (Konold et al., 2017), and students attending higher-performing schools (National Center for Education Statistics, 2023) would demonstrate greater knowledge across these domains.

Data were collected as part of an initial program evaluation of Advocating for My Relationships (ADMYRE), a school-based TDV prevention program implemented through a university–state–school partnership serving schools across Iowa. Guided by the theory of planned behavior, ADMYRE seeks to promote healthier relationship behaviors by increasing awareness of TDV, highlighting positive relationship characteristics, challenging norms that tolerate violence, and strengthening youths' perceived behavioral control. Consistent with the practical constraints of delivering prevention programming across geographically dispersed schools with varied resources, the evaluation focused on feasible, proximal indicators of program learning and acceptability. Specifically, we examined youth satisfaction with the program and assessed whether participation in ADMYRE was associated with increases in overall TDV knowledge and knowledge of key curriculum targets—healthy balance, staying safe, and bystander behavior. Together, these evaluation components were intended to assess short-term learning while informing future implementation and refinement of adolescent TDV prevention efforts in school settings.

Method

Participants

This study includes 338 participants (M_{age} = 14.85, SD_{age} = 1.19) from eight schools across Iowa who attended the ADMYRE program between February 2022 and June 2023. Half of the participants self-reported as female (50.0%). Most participants were enrolled in ninth grade (64.8%), identified as White (83.7%), and were not of Hispanic or Latino descent (89.3%). Eleven participants did not identify their age, gender, grade, racial, or ethnic identity. Detailed demographic information is provided in Table 1.

Table 1
Participant Demographics and Descriptive Statistics

Demographic	Frequency	%
Gender (n = 338)		
Female	169	50.0
Male	140	41.4
Not listed	12	3.6
Prefer not to answer	6	1.8
Missing	11	3.3
Grade (n = 338)		
7th	15	4.4
8th	28	8.3
9th	219	64.8
10th	12	3.6
11th	28	8.3
12th	25	7.4
Missing	11	3.3
Race (n = 338)		
American Indian or Alaskan Native	3	.9
Asian	2	.6
Black or African American	6	1.8
Pacific Islander	-	-
White	283	83.7
Multi-ethnic/not listed	25	7.4
Prefer not to answer	8	2.4
Missing	11	3.3
Ethnicity (n = 338)		
Of Hispanic or Latino origin	14	4.1
Not of Hispanic or Latino origin	302	89.3
Prefer not to answer	11	3.3
Missing	11	3.3
Descriptive Statistics*	Mean	SD
Overall dating violence knowledge	.72	.29
Balance knowledge	.76	.43
Staying safe knowledge	.66	.48
Bystander behavior knowledge (*SD* =),	.75	.44

Note. Demographic items changed from Year 1 of data collection to Year 2. Respondents could choose “prefer not to answer” when asked about their gender, race, and ethnicity during Year 2. * = All descriptive statistics scores ranged from 0 to 1 see details in results section.

Measures

TDV Knowledge Assessment

The knowledge assessment had nine items. For the three target concepts to assess healthy romantic relationship balance, we asked, *“Which is healthy in a romantic relationship?”* Participants could respond by choosing (a) sharing each other’s social media passwords to build trust, (b) most of the decisions are made by one person, or (c) spending time with other friends. The healthy response for this item is option (c) to remind participants that spending time away from their partner is healthy and that isolation is uncommon in healthy relationships. Correct answers were coded 1, and incorrect answers were

coded 0 for each of the items measuring knowledge. To assess knowledge of staying safe in a relationship, we asked, *"Out of the following options, which is the best way to stay safe in your romantic relationship?"* Participants could respond by choosing (a) identify people you can talk to about your relationship, (b) limit disagreements with your partner, or (c) date people who are part of your friend group. The healthy response for this item is option (a), as it emphasizes the importance of communicating with other people who are not involved in the relationship about concerns participants may face in their relationships.

To assess participant knowledge of bystander behaviors, participants were asked to respond to the following vignette: *"A friend tells you their partner yells at them and has been violent, even hitting them a few times. They ask you not to tell anyone because it could get their partner in trouble. Based on the scenario, what should you do?"* Participants could respond by choosing (a) confront their partner and tell them to stop, (b) offer your friend support and tell an adult, or (c) wait to see if things get worse before doing anything. The healthy response for this item is option (b), which encourages participants to inform a trusted adult. Again, each item was coded as incorrect (0) and correct (1) for the current study.

In addition to the three items assessing balance, staying safe, or bystander behaviors, participants rated six other relationship behaviors as (a) healthy, (b) unhealthy, or (c) dangerous. These items were included in the assessment to identify how participants perceived common representations of romantic relationships. Answers for these six items were coded as incorrect (0) and correct (1) for the current analyses. The items included the following: *"Your partner makes you share your location with them even though you don't think it's necessary,"* and the correct response was option (b) or (c); *"You and your partner can share things with each other and keep some things private."* The correct response was option (a); *"Your partner threatens to hurt themselves if you were to break up with them."* The correct response was option (b) or (c); *"Your partner has you skip hanging out with friends to spend time with them."* The correct response was option (b) or (c); *"Your partner calls you a hurtful name. They apologize after and don't say it again."* The correct response was option (a) or (b); and *"Your partner shows a naked photo of you to their friends."* The correct response was option (b) or (c). Exploratory factor analyses (EFA) were employed to examine how these items hung together and determined it would be appropriate to examine TDV constructs of balance, staying safe, and bystander behaviors separately. The supplemental materials document provides a summary of the EFA findings. Additional comments on validity: Items were drafted to reflect widely taught prevention constructs (healthy balance, personal safety planning, bystander response) and common TDV representations. Expert review by domestic-violence educators and school partners ensured coverage and clarity. Response process evidence: Scenario stems and answer options were refined through pilot feedback to minimize ambiguity and social desirability. Internal structure: Exploratory factor analyses supported examining three TDV knowledge facets (balance, staying safe, bystander) separately. Convergent/known-groups validity: Patterns in the Results —higher knowledge among some grades and among girls, and associations with school climate indicators—mirror findings in TDV literature, supporting external validity.

School Characteristics

School characteristics were measured using public data provided by the Iowa Department of Education's School Performance Profiles (SPPs; Iowa Department of Education, n.d.), which ensures academic accountability for the goals of Every Student Succeeds Act of 2015 (U.S. Department of Education, n.d.). These data were collected in March 2024 for each school year the ADMYRE program was facilitated (2022 and 2023). Each school had a specific performance profile aggregated into the ADMYRE dataset. SSPs were constructed based on student responses to a survey that measured learning conditions around safety, engagement, and the learning environment. The SSP data for this study contained composite scores to identify the conditions for learning, adult-student relationships, emotional safety, expectations/boundaries, physical safety, student-student relationships, English language arts (ELA) scores, and mathematics scores, as well as student enrollment in the Free or Reduced-Lunch Program (FRLP; see Iowa School Performance Profiles, 2023). Additionally, school attendance was measured as the average daily attendance rate of students in each school. Chronic absenteeism was measured by the rate of students who missed more than 10 percent of school days, whether the absence was excused or not (Iowa School Performance Profiles, 2023). While classic reliability and validity indicators are not reported in their 2023 guide, the assessment incorporates multiple reliability safeguards, including a streamlined core indicator set, minimum N-size requirements, and standardized scoring rules described in its Technical Guide. These procedures ensure consistent and stable school-level ratings. Validity evidence derives from alignment with federal ESSA accountability requirements, documentation of rigorous and fair rating procedures, and cross-indicator measurement of proficiency, academic growth, absenteeism, graduation rates, and postsecondary readiness. The Iowa Department of Education describes these ratings as consistently rigorous, reliable, and fair, and the system undergoes federal review and statewide transparency through annual public reporting.

Program Acceptability

Program acceptability was measured with three Likert-scale items, where participants were prompted to respond on a four-point scale (1 = *strongly disagree*; 4 = *strongly agree*). The following items measured participant program acceptability: *"Today's ADMYRE teen dating violence simulation was useful," "The discussion after reading the ADMYRE stories was useful,"* and *"I'd like to experience something like this again."* Such single-item indicators capture face/content validity (perceived usefulness and desire for future participation) and are common.

Procedures

As noted, data were collected as part of a program evaluation of the ADMYRE intervention developed as a university, state agency, and school partnership (Weems et al., 2020) between the facilitators and schools whose personnel requested the program. The University Institutional Review Board (IRB) determined this study was 'exempt' per federal regulations (45CFR46.102 and 21CFR56). All procedures involving human participants adhered to the ethical standards set by the institutional research committee and complied with the 1964 Helsinki Declaration and its subsequent amendments or

comparable ethical standards. In each school, assent was obtained from participants, who were not required to participate or complete the pre-program and post-program surveys. These surveys included prompts for participants to create anonymous but unique IDs that the data analysts used to match pre-survey responses to post-survey responses. Pre-surveys were sent to teachers or instructors seven to 10 days before program facilitation and were electronically administered to students before the program facilitation. Post-surveys were administered to participants immediately after the program concluded.

Each ADMYRE facilitation included a scenario-based simulation where participants were assigned a main character to "follow." There are eight main characters for various simulations involving romantic relationships with healthy and unhealthy characteristics. Participants were tasked with making decisions and determining healthy relationship choices for their character in the given scenario. After each group had completed their character's scenario, all participants engaged in a robust debrief session where they discussed the challenges they faced and the knowledge they gained by engaging in the relationship activities for their characters. The debrief session allowed all participants to share their experiences and to hear about the other characters, thus promoting a more profound understanding that violent relationships can take various forms and involve situation-specific choices. Immediately after the debrief, program facilitators electronically administered post-program surveys to the participants before the session ended. On average, ADMYRE facilitations took 90 minutes to complete. Data were extracted from Qualtrics after all facilitations had been conducted.

Data Analyses

All analyses were conducted in JASP (v0.19) or SPSS with α = .05 (two-tailed for t-tests).

Analyses were conducted in JASP (Version 0.19.0) and SPSS with an alpha of .05. The overall TDV knowledge score was treated as a continuous composite (mean proportion correct), which displayed adequate variability and approximate normality, so paired samples t tests and one way ANOVAs were used for pre to post change and group comparisons. In contrast, the three target indicators (healthy balance, staying safe, and bystander behavior) were single dichotomous items with limited variability and non normal distributions, so non parametric tests (chi square tests for pre to post comparisons, Kruskal–Wallis tests for group differences, and planned Mann–Whitney U tests) were used. Associations with school characteristics were examined using Kendall's tau b, which accommodates ordinal variables with ties. Sensitivity analyses indicated the study could detect small effects across all analytic approaches. We examined: (a) pre to post change in overall TDV knowledge using paired samples t-tests; (b) item-level changes (balance, staying safe, bystander) using χ^2 tests; (c) between-group differences in knowledge by grade, gender, and race using one-way ANOVAs with Bonferroni post-hoc comparisons for youth characteristics and Tukey HSD for school-level analyses; (d) time × subgroup interactions with repeated-measures ANOVAs; and (e) associations with school characteristics using Kendall's tau-b correlations (appropriate for ordinal indicators with ties). Effect sizes were reported as Cohen's d for paired tests, partial η^2 (and f) for ANOVAs, and φ (Cohen's w) for χ^2 tests, each with 95% confidence intervals.

*Sensitivity Analysis: S*ensitivity analysis based on our sample sizes and model degrees of freedom (details are supplied in the supplement) indicated that the study was sensitive (80% power, α = .05) to detect effects as small as $d \approx 0.16$ (paired), $f \approx 0.18–0.20$ (ANOVA), and $w \approx 0.11$ (χ^2). Consistent with recent scholarship (Heckman et al., 2022; Lakens, 2022), we report a sensitivity analysis based on our sample sizes and model degrees of freedom. Because these data were collected as a program evaluation, sensitivity analyses are preferred over post-hoc power calculations, and so we report the smallest effects our study was capable of detecting with 80% power at α = .05 (given n/df). Paired samples t-test (overall TDV knowledge pre to post; df = 328; n = 329 pairs): With α = .05 (two-tailed) and 80% power, our design could detect a standardized paired difference of Cohen's d ≈ 0.16 (small). One-way ANOVAs (between-group effects): For models with df1 = 3, df2 = 323 (e.g., gender effects; N ≈ 327), the minimum detectable effect was Cohen's f ≈ 0.18 (partial $\eta^2 \approx .03$). For models with df1 = 5, df2 = 321 or 320 (e.g., grade effects; N ≈ 326–327), the minimum detectable effect was f ≈ 0.20 (partial $\eta^2 \approx .04$). Chi-square tests (item-level pre to post changes): With df = 1 and sample sizes N = 334, 329, and 337 (balance, staying safe, bystander items respectively), the minimum detectable association was Cohen's w ≈ 0.11 (small). These values were obtained using noncentral t, F, and χ^2 distributions. This approach aligns with current recommendations to report sensitivity rather than post-hoc power and to interpret results using effect sizes and confidence intervals (Heckman et al., 2022; Lakens, 2022).

Results

Descriptive information is also provided in Tables 1 and 2. Overall TDV knowledge scores ranged from 0 to 1 (M_{pre} = .72, SD_{pre} = .29), where the mean equals the percent of correct responses. ANOVA results indicated that gender affected overall knowledge [F (3, 323) = 8.25, p < .001; Cohen's d = 0.56, partial η^2 = .07)] but not grade or race. Female participants, on average, were more likely to answer items correctly (M = .80, SD = .27) than male participants (M = .64, SD = .30).

Table 2
Rate of Correct Responses Pre and Post

Target Knowledge	Pre-ADMYRE	Post-ADMYRE
Healthy balance	65.5	76.5
Staying safe	74.6	85.0
Bystander behavior	76.0	84.3
Additional Items		
Share location	73.7	88.2
Keep some things private	90.2	92.9
Self-harm	99.4	99.4
Skip hanging out with friends	94.7	95.6
Hurtful name	52.4	48.2
Intimate photo	99.1	99.4

Table 3
Kendall's tau b Correlations

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Overall knowledge	-													
2. Bystander behavior knowledge	.53**	-												
3. Balance knowledge	.65**	.07	-											
4. Staying safe knowledge	.61**	.12*	.23**	-										
5. Conditions for learning	.00	.05	− .07	.04	-									
6. Adult-student relationship	− .01	.02	− .07	.04	.83**	-								
7. Emotional safety	− .00	.09	− .07	.01	.77**	.60**	-							
8. Expectations and boundaries	− .14**	.03	− .22**	− .07	.35**	.45**	.41**	-						
9. Physical safety	.07	.09	.03	.03	.48**	.31**	.68**	.12**	-					
10. Student-student relationship	− .07	.06	− .18**	.00	.49**	.44**	.28**	.42**	− .01	-				
11. English language achievement	.13**	− .02	.16**	.09	.16**	.11*	.00	− .41**	.32**	− .33**	-			
12. Math achievement	− .09	− .01	− .07	− .08	− .27**	− .39**	− .06	− .04	.23**	− .07	− .24**	-		
13. Attendance	− .09	.03	− .09	− .09	− .23**	− .23**	− .05	.31**	.18**	− .09*	− .25**	.49**	-	
14. Absenteeism	.06	− .00	.08	.06	.07	.07	.18**	− .17**	− .05	− .07	.12**	− .33**	− .85**	-
15. Free/Reduced lunch	− .16**	− .02	− .19**	− .09	− .13**	.04	− .07	.52**	− .36**	.36**	− .79**	.16**	.28**	− .12**
Note. * $p < .05$, ** $p < .01$														

Bystander Knowledge

A Kruskal–Wallis test revealed a significant gender effect, H(3) = 26.26, p < .001, with a small-to-moderate effect size (ε² = .072; η²_H = .066). Dunn–Holm post-hoc tests showed that the only significant difference was between female and male students. A Mann–Whitney U test confirmed a robust female advantage, U = 7,157, z = 7.94, p < .001, with r = .40 and AUC = .70, indicating that a randomly selected female student had a 70% probability of answering correctly relative to a randomly selected male student.

Staying Safe Knowledge

To confirm the ANOVA findings, we examined staying-safe knowledge using non-parametric tests. Consistent with the ANOVA, grade was not significant, H(5) = 2.78, p = .734 (ε² = −.007; η²_H = −.007), and race was not significant, H(5) = 2.49, p = .779 (ε² = .000; η²_H = .000).

A Kruskal–Wallis test showed a significant gender effect, H(3) = 10.49, p = .015 (ε² = .030; η²_H = .029). A planned Mann–Whitney U comparison between females and males also indicated a small but statistically significant female advantage, U = 9,944, z = 3.19, p = .001, with r = .16 and AUC = .58.

Balance Knowledge

A Kruskal–Wallis test across grade levels indicated that the ANOVA grade effect did not replicate under non-parametric testing, H(5) = 11.34, p = .212 (ε² = .010; η²_H = .010). Gender differences were also not significant, H(3) = 4.23, p = .238 (ε² = .004; η²_H = .004), as were race differences, H(5) = 10.58, p = .060 (ε² = .015; η²_H = .014). Given the theoretical importance of gender contrasts, a planned Mann–Whitney U test comparing females and males revealed

a small but statistically significant difference favoring females, U = 9,679.5, z = 3.27, p = .001, with a rank-biserial correlation of r = .18 and a probability of superiority (AUC) of .59. Descriptively, females scored M = .686, SD = .465 (n = 169) and males M = .614, SD = .489 (n = 140).

School Characteristics

Correlations with school characteristics are detailed in the supplemental material Table S4. Overall TDV knowledge was positively associated with English language achievement and negatively associated with expectations and boundaries, as well as eligibility for free or reduced-price lunch. Balance knowledge was positively associated with English language achievement and negatively associated with expectations and boundaries, student-student relationships, and free or reduced-price lunch status. Staying safe and bystander behavior knowledge were not significantly associated with any of the school-level variables.

Frequency analyses were used to determine participant opinions about the program. However, the items used in these analyses were provided only in the first academic year of data collection, from February 2022 to June 2022, resulting in fewer responses (n = 165). Results indicated that 96.8% agreed or strongly agreed that the program was useful, 96.1% agreed or strongly agreed the discussion was useful, and 81.4% of respondents agreed or strongly agreed to *"I'd like to experience something like this again."*

Change in Knowledge

In terms of overall TDV knowledge change after completing the ADMYRE program results indicate a significant increase from pre (M = .72, SD = .29) to post (M = .82, SD = .24), $t(328) = -7.03$, $p < .001$, Cohen's d = .38. Results also indicated a significant increase in knowledge specifically for balance (66% correct at pre, and 77% at post, χ^2 (1, N = 334) = 96.79, $p < .001$); staying safe (75% correct at pre, and 85% at post, χ^2 (1, N = 329) = 62.66, $p < .001$ and increase in bystander behavior knowledge (76% correct at pre and 84% at post-survey, χ^2 (1, N = 337) = 66.35, $p < .001$). Analyses examining differential change in knowledge by gender, race, or school characteristics were not statistically significant. When accounting for youth and school characteristics, repeated measures ANOVAs results indicated only one significant interaction between TDV knowledge and youth characteristics. Results demonstrated a significant interaction between grade and time for bystander behavior knowledge [F (5, 320) = 2.35, $p < .05$]. However, Tukey's HSD post-hoc analyses did not indicate significant differences between participant responses for any specific grade.

Discussion

This study contributes to the literature on teen dating violence (TDV) prevention by documenting what can be learned about youth knowledge and instructional needs when programs are implemented in real-world school settings. Findings add to understanding youths' knowledge of TDV by evaluating their perspectives on healthy relationship balance, strategies for staying safe in romantic relationships, and effective bystander behaviors within a school-based prevention context, as well as how this knowledge varies across individual and school characteristics. Importantly, results highlighted that some aspects of TDV knowledge appear particularly salient and well understood by youth, whereas more nuanced or less commonly discussed aspects such as healthy relational balance, safety strategies, and bystander actions were less consistently recognized.

Consistent with previous research, participants were most accurate in identifying scenarios depicting clear physical or sexual dating violence, aligning with findings that youths typically recognize overt and severe forms of violence more readily than psychological or relational forms (Morrison et al., 2023). In the current study, the high overall rates of correct responses limited our ability to examine variation on several items, suggesting that while adolescents generally understand the most extreme aspects of TDV, more subtle or relationally embedded behaviors require further educational emphasis. The difficulty youth demonstrated with healthy balance, staying safe, and bystander items underscores the importance of refining measurement tools and prevention curricula so that they capture and strengthen more complex TDV-related competencies.

Developmental differences emerged as an important factor, particularly in relation to youths' knowledge of healthy relationship balance. Younger participants were less likely to identify balanced romantic relationship dynamics, which is consistent with developmental theory suggesting that romantic involvement becomes more central and salient during mid- to late adolescence (Viejo et al., 2020). As youth age, they accumulate greater exposure to, and experience with, relationship conflict and negotiations of autonomy and connection, which may make older adolescents more attuned to unhealthy or controlling behaviors. Furthermore, younger adolescents engage less frequently in romantic relationships and thus have fewer direct experiences with relationship strain or imbalance (McCurdy et al., 2025). These developmental differences emphasize the importance of developmentally tailored TDV prevention efforts that scaffold conceptual understanding for younger teens while providing more advanced relational skill-building for older students.

Gender differences emerged across multiple domains of TDV concept knowledge. Female participants demonstrated greater understanding of staying safe behaviors, bystander actions, and overall TDV concepts compared to male participants. This aligns with established research documenting that girls and young women tend to demonstrate stronger communication skills, interpersonal awareness, and emotional attunement in romantic contexts (Viejo et al., 2020), which may facilitate greater recognition of warning signs and safety strategies. Prior studies examining gender and TDV knowledge have similarly found that girls report greater awareness of TDV concepts and are more receptive to prevention messaging (Taylor et al., 2010). These findings underscore the continued need for programs to engage boys more deeply, potentially by integrating gender-responsive content that acknowledges masculine socialization, norms surrounding help-seeking, and barriers to intervention.

The study's findings also reveal the role of school-level characteristics in shaping TDV knowledge. Four characteristics—free or reduced-price lunch (FRPL) enrollment, average English Language Arts (ELA) achievement, school expectations and boundaries, and perceptions of peer relationships—were significantly associated with overall TDV and healthy relationship balance knowledge. These results highlight the importance of ecological contexts and indicate that school climate, academic environment, and socioeconomic composition may influence students' exposure to, and internalization of, healthy

relationship norms. Schools characterized by stronger expectations, clearer behavioral boundaries, and more supportive peer relationships may cultivate environments where discussions of healthy relationships and conflict resolution are more normative and accessible. Although this study included only a small percentage of high schools in Iowa, the observed associations align with research suggesting that socioeconomic status, peer dynamics, and broader school climate shape academic and interpersonal development (Berkowitz et al., 2017). Future research should further examine how school culture and demographic factors intersect with TDV knowledge to better identify contexts where prevention efforts can be optimized.

The program evaluation component demonstrated that TDV concept knowledge increased following participation in the ADMYRE program, suggesting preliminary evidence for its instructional potential. These gains occurred regardless of participant gender or racial identity, indicating broad accessibility of the program's content. Changes in healthy balance knowledge varied by grade, though this may partially reflect the disproportionate number of ninth-grade participants. Similarly, interactions between grade and time for bystander behavior knowledge suggest that developmental level influences how students process and internalize bystander-related concepts. However, without post-hoc analysis, interpretation remains speculative.

Consistent with other TDV prevention research, increases in knowledge do not necessarily translate into behavioral change (Foshee et al., 1998). Participants may respond in socially desirable ways immediately following programming or may require additional reinforcement for meaningful behavioral shifts to occur. Nonetheless, high levels of program satisfaction, including students' willingness to participate in similar programming again, indicate that ADMYRE's delivery format and content resonated with participants and may facilitate longer-term engagement with TDV-related topics.

Limitations

This study has several limitations that warrant consideration. The correlational design prevents any causal inferences, and the absence of a comparison or control group limits the ability to attribute changes in knowledge directly to the program. The lack of variability in several assessment items restricted the potential for more nuanced analyses; this suggests that the current measure may require refinement to increase sensitivity and better capture subtle changes in understanding, particularly regarding psychological and relational forms of TDV. Several core constructs (balance, staying safe, bystander behavior) were each assessed using single dichotomous items, which limits reliability and restricts the measurement of nuanced conceptual understanding. Ceiling effects on multiple items further constrained the ability to detect meaningful subgroup variation or program-related improvements, indicating that future work should refine and expand item pools to increase sensitivity.

Additionally, findings may reflect broader sociocultural norms around gender, relationships, and conflict that differ across communities, indicating the need for assessments that incorporate structural and cultural considerations. Because post-program surveys were administered immediately after facilitation, results may partially reflect short-term recall or socially desirable responding rather than durable conceptual change. Incorporating delayed follow-up assessments would allow for a more valid assessment of retained knowledge and behavioral intentions. The program's implementation across only eight Iowa schools limits generalizability, and a larger, more diverse sample would strengthen the external validity of the findings. Associations between TDV knowledge and school characteristics must be interpreted cautiously because school-level indicators (e.g., climate, ELA scores, FRPL rates) were aggregated measures that may not reflect individual students' experiences. Such ecological associations risk over- or underestimating true contextual influences. Future research should employ randomized controlled trials or experimental designs with multiple time points to establish program efficacy and track longer-term outcomes.

Conclusion

Overall, this study underscores the importance of assessing nuanced elements of TDV knowledge, including relationship balance, staying safe, and bystander behaviors. These components represent critical but often underexamined dimensions of healthy relationship functioning and violence prevention. The ADMYRE program shows promise in enhancing TDV concept knowledge and was well received by participants, though more rigorous evaluation is needed to confirm its impact. Continued investment in school-based prevention programming remains essential, as schools provide accessible and developmentally appropriate contexts for shaping youths' attitudes and behaviors around relationships. As prior research has emphasized, improving youths' relational competencies and reducing exposure to interpersonal violence are vital strategies for promoting healthy development and preventing traumatic adversity (Weems et al., 2021). Advancing TDV prevention will require thoughtfully designed, developmentally sensitive programming supported by methodologically rigorous research capable of capturing both knowledge acquisition and meaningful behavioral change.

Declarations

Author Contribution

M.D.S.: Conceptualization, Data Curation, Formal Analysis, Writing – Original Draft, Writing – Review & Editing.B.H.M.: Conceptualization, Methodology, Writing – Review & Editing.K.G.: Project Administration, Investigation, Writing – Review & Editing.R.E.: Investigation, Data Curation, Data Collection Writing – Review & Editing.J.N.M.: Methodology, Supervision, Writing – Review & Editing.D.L.: Supervision, Methodology, Writing – Review & Editing.C.F.W.: Conceptualization, Formal Analysis, Funding Acquisition, Supervision, Methodology, Writing – Review & Editing.

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Data Availability

The data that support the findings of this study are not publicly available due to the nature of the data and the context in which they were collected but are available from the corresponding author upon reasonable request.

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