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Document Title: A Longitudinal Examination of Teen Dating Violence from Adolescence to Young Adulthood

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Document Number: 252053

Date Received: August 2018

Award Number: 2016-R2-CX-0035

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Final Summary

Grant Number: 2016-R2-CX-0035

Title: A longitudinal examination of teen dating violence from adolescence to young adulthood

Primary Investigator: Ryan C. Shorey, Ph.D.

Purpose

Teen dating violence (TDV) is a serious and prevalent public health problem. Each year approximately 20-30% of teens will perpetrate and be victimized by physical aggression¹; 10-20% will perpetrate and be victimized by sexual aggression²; and 50% will perpetrate and be victimized by psychological aggression³. The negative mental and behavioral health outcomes of TDV are staggering. TDV victimization is associated with increased mental health symptomatology (e.g., depression, posttraumatic stress disorder [PTSD]), suicidal ideation, risky sexual behavior, sexually transmitted infections (STI), and poor school performance⁴⁻⁶. Importantly, retrospective research suggests that adolescents who perpetrate TDV are at risk for continuing to be aggressive in adult relationships⁷. Thus, intervention and prevention programs for TDV would not only benefit adolescents immediately, but they may also help to reduce the risk for violence being perpetrated in adulthood. However, despite the need for TDV intervention and prevention, theoretically-derived and research-based programming for TDV is lacking. This is likely due to the fact that research on the onset and stability of TDV, as well as theory-guided research on risk and protective factors for TDV perpetration, is rarely conducted. When research has examined these important questions, studies have largely been limited to cross-sectional or single follow-up (i.e., 1 year) designs. As such, efforts to prevent or intervene with TDV is hindered, as it is currently unclear what factors should be targeted in these programs.

Moreover, research on TDV to-date has lacked a comprehensive, theoretically-guided focus on ecological factors that may increase or decrease the risk for mental and behavioral health outcomes that are a result of TDV victimization. Although there are a plethora of cross-sectional studies on associations between TDV victimization and health indicators, similar to research on risk and protective factors for TDV perpetration, longitudinal research on risk or protective factors for developing these health problems is lacking. Understanding whether TDV victimization is associated with mental and behavioral health outcomes over time, and what factors increase or decrease this risk, will provide crucial information that can be used to enhance services for victims of TDV. Finally, research has rarely examined whether gender, age, and ethnicity/race impact the associations between the onset and stability of TDV, risk and protective factors for TDV, and associations between TDV and health outcomes. Unpacking the influence of these demographic characteristics will provide important information on whether intervention and prevention programs need to be tailored toward specific groups of adolescents.

To address these gaps in the literature, the current study examined the *Dating it Safe* dataset (NIJ #2012-WG-BX-0005), a NIJ-funded 6-year longitudinal study of TDV that included 1,042 ethnically and socioeconomically diverse adolescents who began participation in this study at an average age of 15. Having comprehensively assessed different forms of TDV, risk and protective factors, and health variables at each annual assessment, the *Dating it Safe* dataset is ideally suited to address the important gaps in the TDV literature identified above.

Specific Aims of this Project:

Aim 1. To examine the onset and stability of different forms of TDV perpetration and victimization (physical, psychological, and sexual) over 6 years of development.

Aim 2. To examine theoretically-derived risk and protective factors for the onset and stability of TDV perpetration across individual (e.g., substance use), family (e.g., parental monitoring), and community (e.g., peer violence) levels over the course of 6 years.

Aim 3. To examine mental (e.g., depression, PTSD) and behavioral (e.g., STI, substance misuse) health outcomes following TDV victimization over the course of 6 years. Based on ecological theory, we will also examine theoretically-derived risk (e.g., peer violence) and protective (e.g., parental warmth) factors for developing mental and behavioral health outcomes as a result of TDV victimization.

Aim 4. To examine how gender, age, and ethnicity affect the onset and stability of TDV, associations between risk and protective factors and TDV perpetration, and the associations between TDV victimization and mental/behavioral health outcomes.

Through the examination of the rich *Dating it Safe* dataset, critical questions pertaining to TDV will be answered, providing crucial information for the development of more effective violence intervention and prevention programs.

Project Subjects

The sample for the current analyses was drawn from the study “*Dating it Safe*,” a 6-year NIJ-funded longitudinal study on TDV. Participants included 1,042 adolescents who were initially recruited for participation when they were in high school. Participants were recruited and assessed at 7 public high schools throughout southeast Texas as freshman high school students in 2010, with follow-ups annually from 2011 through 2015. Thus, there is a total of 6 assessment periods, each separated by one year.

Of the 1,702 students present on the days of recruitment in 2010, 1,215 returned parent permission forms (71%), of which 1,119 received parental permission to participate, and 1,049

completed the survey (62% of students attending the schools on days of recruitment; 94% of those who received parental permission; 7 surveys removed for random responding). The primarily tri-ethnic sample is composed of African American (30%), Euro-American (31%), Mexican American (31%), and other (8%). There were more girls ($n = 579$; 56%) than boys. At the conclusion of Time 6, 5% of the sample was married; 13% had children; and 10% self-reported as a sexual minority. The mean age of participants at Time 1 was 15, with the mean age at Time 6 being 20. At the end of Time 5, all participants were out of high school.

Importantly, participant retention rates for the five follow-up assessments were high: 93% at Time 2; 86% at Time 3; 75% at Time 4; 70% at Time 5; and 73% at Time 6. Thus, this sample was well-suited to address the primary aims of the current study.

Project Design and Methods

Participants were recruited during normal school hours from classes with mandatory attendance. There were no exclusion criteria, and thus all students in these classes were eligible for the study. Active consent was obtained by having study staff attend each class twice prior to the first assessment to explain the purpose of the research, general design, and answer questions. Information about the study, including a parental consent form, was sent home with students to provide to their parents. Sixty-two percent of students approached for participation returned a signed parental consent. In addition to parental consent, student assent was obtained. For questionnaire completion, participants were “pulled” from the class from which they were recruited, brought to a room reserved at the school for the study, and completed the questionnaires. Teachers and other school staff were not present during completion of questionnaires. Participants who were not in high school during follow-up assessments completed the questionnaires on a web-based survey platform. Compensation for the study

included a \$10 gift card (years 1, 2, and 3), a \$20 gift card (years 4 and 5), and a \$30 gift card (year 6).

A key strength of *Dating it Safe* was the inclusion of comprehensive, valid, and reliable self-report measures. This included the most comprehensive measure of TDV available, The Conflict in Adolescent Dating Relationship Inventory (CADRI) and various mental and behavioral health indicators at each assessment (e.g., depression; PTSD; substance use; STI; non-suicidal self-injury), and assessments of risk and protective factors (e.g., impulsivity; attitudes toward TDV; hostility; parental closeness) for TDV perpetration.

Data Analysis

Several different statistical analyses were utilized to examine the aims of the study. For instance, we employed structural equation modeling (SEM) in Mplus version 7.0 to examine cross-lagged associations between acceptability of violence, psychological TDV, and physical TDV. Separate models were conducted for male-to-female and female-to-male acceptance of IPV. Both models included stability paths and cross-lagged associations between all variables across all years. The multiple group model (MGM) approach was employed to examine potential gender and racial/ethnic differences in the cross-lagged models. SEM was also utilized to examine the stability of IPV perpetration in sexual minority participants and parallel process latent growth curve models to examine whether peer TDV was associated with TDV perpetration from ages 15 to 18.

We utilized survival analysis in SPSS version 25.0 to examine the onset of TDV perpetration. Receiver Operator Characteristics (ROC) analyses were conducted to examine the predictive validity of various risk factors for physical and sexual TDV perpetration over time. All significant predictors (i.e., area under the curve ≥ 0.64) were then entered into a

reclassification analytic model to examine the incremental validity of each predictor above and beyond past physical and sexual TDV perpetration. For the final algorithms, diagnostic likelihood ratios (DLRs) were computed to estimate the posterior probability of perpetrating future TDV based on different scoring profiles on the algorithms identified via the reclassification analyses.

Findings

We first examined the onset of TDV perpetration. Findings suggested that physical TDV risk of onset was at or before ages 15 to 16 for females and at or before age 18 for males. For sexual TDV perpetration, risk was similar for males and females during adolescence, before uniquely increasing for males, and not females in emerging adulthood⁸. We were unable to examine the onset of psychological TDV perpetration, as the majority of participants had already perpetrated psychological TDV at the start of the study, suggesting that psychological TDV onset begins in early adolescence.

Multiple analyses were conducted to examine the stability of TDV over time. These results showed that TDV perpetration was remarkably stable across six years, specifically for psychological and physical TDV across the entire sample⁹. Results did not vary across sex (male vs. female) or race/ethnicity. We also showed that the stability of physical and sexual TDV perpetration was high among participants who identified as a sexual minority ($n = 135$)¹⁰. For example, the stability paths for sexual TDV perpetration ranged from .43 to .64 across the six years.

We also examined predictors of TDV perpetration over time. Parallel process modeling demonstrated that decreases in perceptions of peers' physical TDV predicted decreases in participants' physical TDV perpetration over time¹¹. Multiple group model analyses further

demonstrated that this relationship was more pronounced for males than females. Additional analyses demonstrated that acceptability of TDV was only weakly associated with actual TDV perpetration from early adolescence to young adulthood⁹. We also examined predictive algorithms for physical and sexual TDV perpetration¹². Results suggested that family violence (domestic violence exposure, maltreatment) together with deficits in conflict resolution incrementally improved our forecasts above and beyond lifetime history of physical TDV perpetration (net reclassification improvement = 0.44; 95% confidence interval [CI] = 0.30–0.59). Meanwhile, a violent dating history (TDV sexual perpetration, sexual victimization, and emotional perpetration) and acceptance of TDV incrementally improved our models for forecasting sexual forms of perpetration (net reclassification improvement = 0.41; 95% CI = 0.24–0.58). These models adequately discriminated between future TDV perpetrators and non-offenders (area under the curve statistic >0.70; 95% CI: 0.69–0.74). Overall, adolescents with positive test results on our algorithms were over twice as likely to perpetrate TDV over the course of 6 years.

Finally, mixed-level modeling was used to examine how parental IPV exposure was uniquely associated with different patterns of mental health across developmental epochs¹³. Findings demonstrated a multifaceted relation with mental health. For internalizing symptoms, the effect was pronounced during adolescence, and neglect increased the risk for depression symptomatology. Meanwhile, parental-IPV-exposed adolescents were at increasing risk for substance use as they aged into adulthood. Symptom levels and trajectories were independent and distinct from maltreatment experiences.

Implications for Criminal Justice Policy and Practice in the United States

Our findings have a variety of implications for criminal justice policy and practice in the United States. Specifically, we believe that the knowledge gained from the current study has provided policymakers and practitioners with the most up-to-date and critically important information that will be relevant to the development and refinement of TDV intervention and prevention programs. First, our findings demonstrate that TDV primary prevention programs need to begin in early adolescence, before the onset of TDV perpetration has begun. Targeting adolescents during middle school, prior to the onset of TDV perpetration, is crucial to reducing the risk for future TDV perpetration. Second, our findings also suggest that, without intervention, TDV perpetration will remain remarkably stable from adolescence into young adulthood. Thus, intervention efforts should be implemented throughout this developmental transition. Third, findings suggested that certain risk factors for TDV perpetration may be more important than others to target in intervention and prevention programs. For instance, acceptability of TDV, a common target in most TDV intervention programs, was weakly and inconsistently related to TDV perpetration over time. Thus, time spent targeting acceptability of violence beliefs may be better spent targeting conflict resolution skills and focusing on adolescents with a history of family violence.

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