Family-of-origin factors and teen dating violence victimization and perpetration: A meta-analysis

by

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Abstract

Teen dating violence (TDV) is a common problem among adolescents, yet little is known about the risk markers for TDV perpetration and victimization. The purpose of this meta-analysis was to explore the relationship between family-of-origin factors (i.e., attachment, witnessing inter-parental violence, experiencing abuse as a child, poor parenting, and parental support) and TDV victimization and perpetration. A total of 27 studies, which yielded 81 effect sizes examining physical TDV perpetration and victimization, were included in the study. Results from our analysis revealed that anxious attachment was the strongest risk marker for TDV perpetration and experiencing abuse as a child was the strongest risk marker for TDV victimization. Our results also revealed that witnessing inter-parental violence was a significant risk marker for TDV perpetration and victimization, poor parenting was a significant risk marker for TDV victimization, avoidant attachment and experiencing abuse as a child were significant risk markers for perpetration, and parental support was a significant protective marker against TDV victimization. These findings highlight the importance of family factors when identifying adolescents who are at risk for TDV, as well as developing violence prevention and intervention programs.
# Table of Contents

List of Figures ...................................................................................................................... v
List of Tables ........................................................................................................................ vi
Acknowledgements .............................................................................................................. vii
Chapter 1 - Introduction and Background .............................................................................. 1
   Theoretical Framework ......................................................................................................... 3
      Attachment and TDV ......................................................................................................... 5
      Witnessing Inter-parental Violence and TDV ................................................................. 7
      Childhood Maltreatment and TDV ..................................................................................... 8
      Poor Parenting and TDV .................................................................................................... 8
      Parental Support and TDV ............................................................................................... 9
   The Present Study ............................................................................................................... 10
Chapter 2 - Method ............................................................................................................... 11
   Literature Search .............................................................................................................. 11
   Inclusion and Exclusion Criteria ....................................................................................... 11
   Included Studies .............................................................................................................. 12
   Coding Procedures .......................................................................................................... 14
   Statistical Approach and Analyses .................................................................................. 14
Chapter 3 - Results ............................................................................................................. 16
   Avoidant and Anxious Attachment ................................................................................... 16
   Witnessing Inter-Parental Violence ................................................................................... 16
   Experiencing Abuse as a Child ......................................................................................... 16
   Poor Parenting .................................................................................................................. 17
   Parental Support ............................................................................................................... 17
   Analyses of Publication Bias ............................................................................................ 21
Chapter 4 - Discussion and Conclusion .............................................................................. 23
   Limitations ....................................................................................................................... 27
   Implications ...................................................................................................................... 28
   Conclusions ..................................................................................................................... 28
References ............................................................................................................................. 30
List of Figures

Figure 1: Flowchart of Study Selection.................................................................13
List of Tables

Table 1: Risk Markers for Physical Teen Dating Violence Victimization and Perpetration ........18
Table 2: Comparing Risk Markers for Physical TDV Between Perpetration and Victimization..19
Table 3: Comparing Risk Markers for Physical TDV Perpetration Between Males and Females20
Table 4: Duval and Tweedie’s Trim and Fill (Random Effects), Classic Fail-Safe N, and Orwin’s
Fail-Safe N Tests for Risk Factors for TDV .................................................................22
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Chapter 1 - Introduction and Background

Teen dating violence (TDV), which consists of physical, emotional, and sexual abuse or stalking (Center for Disease Control and Prevention, 2017), is a common problem among adolescents. In fact, 20% of adolescents reported both physical TDV perpetration and victimization in their relationship in the past year (Wincentak, Connolly, & Card, 2017), with rates peaking between the ages of 16 and 17 (Foshee et al., 2009). It is important to examine the different types of TDV separately because risk markers and outcomes vary based on the type of violence (Niolon et al., 2015). This analysis focuses specifically on physical TDV, which refers to a variety of physical acts, such as hitting, slapping, punching or kicking, because of the seriousness of the consequences of physical violence and the immediacy surrounding the potential of physical harm. Specifically, physical TDV has been associated with many serious mental health outcomes, including increased depressive and anxiety symptoms, suicidal ideation, post-traumatic stress symptoms, as well as general internalizing problems (e.g., Ackard, Eisenberg, & Neumark-Sztainer, 2007; Callahan, Tolman, & Saunders, 2003; Exner-Cortens, Eckenrode, & Rothman, 2013; Foshee, Reyes, Gottfredson, Chang, & Ennett, 2013). TDV victimization has also been associated with risky health behaviors, such as higher sexual risk behaviors (Silverman, Raj, Mucci, & Hathaway, 2001), substance abuse (Parker & Bradshaw, 2015), and unhealthy weight control and disordered eating behaviors (Ackard, & Neumark-Sztainer, 2002). Last, TDV victimization has been linked to lower academic performance, increased likelihood of school dropout, and an increase in antisocial behavior (Banyard & Cross, 2008; Roberts, Klein, & Fisher, 2003).

It is also important to examine violence during adolescence because it is during this formative developmental period that patterns are learned that often carry throughout the lifespan.
Specifically, individuals who experience violence in their adolescent relationships are more likely to perpetrate violence as they mature, further supporting the need to understand and prevent TDV (Foshee et al., 2009; Williams, Craig, Connolly, Pepler, & Laporte, 2008). It is also important to examine gender when looking at TDV, as previous researchers have found that adolescent females are just as likely, if not more likely, to perpetrate violence in their romantic relationships (Archer, 2000; Arriaga & Foshee, 2004; Foshee, 1996; Wincentak, Connolly, & Card, 2017), a finding that is inconsistent with the literature on violence in adult couple relationships.

Although previous researchers have examined a vast array of predictors, the results regarding the strongest risk marker for TDV have been inconsistent. For example, some researchers have found that family factors are the strongest risk marker for TDV engagement (Earnest & Brady, 2016; Foshee, Bauman, & Linder, 1999), while others have not (e.g., Arriaga & Foshee, 2004). In addition, the findings of two recent meta-analyses that broadly examined the risk markers of undifferentiated TDV were inconsistent (Hébert et al., 2017; Park & Kim, 2018). To illustrate, Park and Kim (2018) found that family relationship problems were the strongest markers of TDV perpetration, and witnessing violence between parents was the strongest marker of TDV victimization among the family-related factors. They also found that positive parenting was the strongest protective marker against TDV involvement (Park & Kim, 2018). On the other hand, Hébert and colleagues (2017) found a significant relationship between all child maltreatment variables (i.e., sexual abuse, psychological abuse, neglect, witnessing IPV, and physical abuse) and TDV victimization. When examining gender differences, they found that there was a stronger relationship between childhood maltreatment and TDV victimization for
females than there was for males. Additionally, parental monitoring and support were protective factors against TDV victimization, but the magnitude was small (Hébert et al., 2017).

Consequently, a meta-analysis of the existing research on risk markers of physical TDV is warranted in order to identify significant risk markers across studies. Therefore, this meta-analysis will specifically examine family-of-origin risk markers of physical TDV in order to narrow our research scope and because of the importance of family relationships for adolescents. Specifically, the family serves as the initial place of modeling and relationships built in the family help set a framework for future relationships (Hazan & Shaver, 1987). Additionally, the adult literature on intimate partner violence (IPV) supports the relationship between family-of-origin factors and IPV (e.g., Smith-Marek et al., 2015; Stith et al., 2000). Family-of-origin risk markers included in this study are attachment style, witnessing inter-parental violence, as well as quality of the parental relationship (i.e., experiencing abuse as a child, poor parenting, and protective markers such as parental support). Specifically, this study will examine which family-of-origin factors are the strongest risk markers for both physical TDV perpetration and victimization. In addition, this study will explore whether the risk markers for physical TDV differ in strength between males and females and victimization and perpetration. Examining the relationship between family factors and TDV is important for identifying potential risk markers, as well as developing and improving TDV intervention and prevention programs.

**Theoretical Framework**

Similar to previous research, this study will use attachment theory (e.g., Grych & Kinsogel, 2010; Lee, Reese-Weber, & Kahn, 2014; Tussey, Tyler, & Simons, 2018) and social learning theory (e.g. Chapple, 2003; Foshee, Bauman, & Linder, 1999; Karlsson, Temple, Weston, & Le, 2016) to examine the association between family-of-origin risk markers and TDV
perpetration or victimization. According to attachment theory, attachment is an affectional bond that an infant forms with a specific individual, most likely the mother (Ainsworth, 1969). This attachment, based on early interactions with caregivers, helps individuals develop their own internal working models about relationships and set a foundation for the expectations of future dating relationships (Bowlby, 1988; Hazan & Shaver, 1987). When children experience a nurturing, supportive home environment, they develop positive models for relationships and of self, learning they are worthy of love and that people behave in dependable ways; thus, forming a secure attachment (Bowlby, 1988, Lee et al., 2014). Conversely, when children experience harsh and poor parenting, they develop negative models for relationships and of self, learning they are unworthy and people are not dependable; thus, forming an insecure attachment (Bowlby, 1988; Lee et al., 2014). This insecure attachment can be split into two categories: anxious attachment or avoidant attachment. Anxious attachment is characterized by fear of being abandoned, rejected, or unloved by romantic partners; while avoidant attachment is characterized by fear of being too close or clingy and thus distancing oneself from others (Lee et al., 2014; Tussey et al., 2018). Attachment theory is important to consider when examining TDV because the attachment created in childhood through parent-child relationships helps set the foundation for the relational patterns individuals have later in life. The childhood attachment is related to the later romantic attachment that adolescents and adults form in their romantic relationships (Hazan & Shaver, 1987).

Social learning theory has also been used to explain the link between family-of-origin risk markers and TDV. Bandura (1971) theorizes that most behavior people display is learned, either intentionally or unintentionally, from a model. Models, which can be live, symbolic, or verbal, set a stage for individuals to learn their behaviors and learn from their behaviors. Bandura
(1971) sought to move from a conditioning standpoint, where individuals must learn behaviors based on their own trial-and-error, and focus more on the cognitive aspect of observational learning. In order for observational learning to happen, an individual must observe the behavior, retain the behavior, have the necessary motor functions to imitate the behavior, and have motivational reinforcement to follow through with it (Bandura, 1971; Wolf & Foshee, 2003). This motivational reinforcement, called vicarious reinforcement, occurs when individuals see the model’s actions and the responses to the actions to formulate expectations about the outcomes if they emulate a specific behavior (Bandura, 1971). The family is a primary source of modeling, so it serves as a prime place to learn how to interact with others, especially when handling anger. For example, a parent might gain the attention as a model by exhibiting power, control, attractiveness, or success (Grusec, 1992). Therefore, in terms of violence, a child who witnesses violence between their parents might perceive that the use of violence is a means to maintain power and control over one’s partner, and ultimately perceive the gained power as a positive outcome. Based on this, if children witness their parents using violence as a way to handle anger, and do not see a negative consequence, they learn that being violent, or accepting violence, is an appropriate way to handle conflict. In support of this idea, previous research have found that witnessing violence between parents predicts later TDV engagement (e.g., Arriaga & Foshee, 2004; Earnest & Brady, 2016; Foshee, Bauman, & Linder, 1999; Karlsson et al., 2016; Wolf & Foshee, 2003).

**Attachment and TDV**

Previous research using attachment theory to explain dating violence has found that individuals who are insecurely attached are more likely to engage in dating violence (e.g., Godbout, Daspe, Lussier, Sabourin, Dutton, & Hebert, 2017; Grych & Kinsogel, 2010; Lee et al.,
Moreover, research has found a correlation between factors often related to the development of an insecure attachment (e.g., harsh parenting, experiencing abuse by a parent, witnessing violence in the family-of-origin) and TDV perpetration and victimization (e.g., Bonache, Gonzalez-Mendez, & Krahé, 2017; Foshee, Bauman, Linder, 1999; Godbout et al., 2017; Lee et al., 2014; Tussy et al., 2018; Unger & De Luca, 2014). To illustrate, in a recent study of college-aged participants, experiencing abuse as a child, witnessing parental violence, and having poor maternal relationship quality were all linked to dating violence perpetration through the development of anxious and avoidant attachment styles (Tussey, et al., 2018).

Similarly, in one of the few studies conducted on adolescents, Foshee, Bauman, and Linder (1999) found that the eighth and ninth graders in their study who had been hit by a parent felt less attached to their parent and had developed a more aggressive conflict-response style, meaning they were more likely to perpetrate TDV when angry (Foshee et al., 1999). Bonache, Gonzalez-Mendez, and Krahé (2017) also found that male high school students with high levels of anxious attachment and female high school students with high levels of avoidant attachment were more likely to be victims of physical TDV. Similarly, in their sample of 14- to 18-year olds, Grych and Kinsfogel (2010) found that boys exposed to family aggression were more likely to perpetrate TDV if they exhibited higher attachment anxiety. Conversely, girls were more likely to perpetrate TDV if they exhibited higher avoidant attachment, highlighting the moderating role of attachment between family-of-origin factors and TDV (Grych & Kinsfogel, 2010).

Consequently, examining the role of attachment to parents and romantic partners is key in understanding risk markers for physical TDV perpetration and victimization because of the way it influences relational patterns.
Witnessing Inter-parental Violence and TDV

Previous researchers have found that adolescents who witnessed violence between their parents were more likely to perpetrate violence or be a victim of violence later in life (e.g., Karlsson et al., 2016; Maas, Fleming, Herrenkohl, & Catalano, 2010; Schwartz, O’Leary, & Kendziora, 1997; Temple, Shorey, Tortolero, Wolfe, & Stuart, 2013; Wolf & Foshee, 2003). However, the findings linking inter-parental violence and TDV have been inconsistent, particularly when it comes to gender. To illustrate, Schwartz and colleagues (1997) found that exposure to inter-parental violence was significantly related to males’ physical TDV perpetration; however, no relationship was found for female participants. Similarly, in their sample of ninth and tenth graders, Karlsson and colleagues (2016) found that witnessing mother-to-father violence was a better predictor of physical TDV victimization for boys than it was for girls, highlighting the effects of modeling in the family has on adolescents because male adolescents are learning to be victims through observing their fathers being victimized. Conversely, another study of ninth and tenth graders found that both father-to-mother and mother-to-father violence were significantly associated with physical TDV perpetration for girls; however, for boys, only mother-to-father violence was significantly associated with physical TDV perpetration (Temple et al., 2013). Wolf and Foshee (2003) and Maas and colleagues (2010) also found that witnessing family violence was a significant predictor of undifferentiated TDV perpetration for females, but they did not find a relationship between witnessing family violence and TDV for males. Last, Hunter (2009) found that witnessing inter-parental violence was not significantly associated with TDV for males or females, calling into question the relationships between witnessing violence and TDV engagement and underlining the need to further examine gender differences and the risk markers of TDV for both males and females.
**Childhood Maltreatment and TDV**

Moving beyond witnessing family violence to personal experiences of violence in the family of origin, some researchers have found that experiencing abuse as a child was significantly related to both TDV victimization and perpetration (Earnest & Brady, 2016; Foshee, Bauman, & Linder, 1999; Kennedy, 2008; Maas et al., 2010; Miller, Breslau, Chung, Green, McLaughlin, & Kessler, 2011; Wolf & Foshee, 2003). To illustrate, in a study of high school students, Earnest and Brady (2016) found that experiencing abuse by a parent was not only the strongest correlate for physical TDV victimization, but it also increased the chances of becoming a victim of physical TDV by nearly four times (27% vs 7% respectively). The authors argued that the participants who had been victims of abuse in their families were more likely to be victims in their romantic relationships because violence was modeled in the family and, thus, normalized (Earnest & Brady, 2016). Additionally, Kennedy (2008) found that experiencing violence in the family was associated with physical TDV victimization, but only for females. On the other hand, Linder and Collins (2002) found that family violence factors did not predict later TDV for either males or females. In other words, more research needs to be conducted to determine if childhood abuse is a risk marker of TDV perpetration and victimization for both males and females.

**Poor Parenting and TDV**

In addition to experiencing abuse as a child, family contextual factors, like negative parental relationships, low monitoring, and low involvement, have been found to be significantly associated with later TDV (Chase, Treboux, & O’Leary, 2002; Chiodo, Crooks, Wolfe, McIsaac, Hughes, & Jaffe, 2012; Earnest & Brady, 2016; Fosco, Xia, Lynn, & Grych, 2016; Miller, Breslau, Chung, Green, McLaughlin, & Kessler, 2011). To illustrate, in their sample of 89
adolescents, Chase and colleagues (2002) found that adolescents who engaged in TDV perceived their parents to have lower involvement, behavioral control, and parental supervision than their peers who do not engage in TDV. Similarly, in a study of 519 adolescent females, Chiodo and colleagues (2012) found that those who experienced parental rejection were more likely to be in mutually violent relationships two years later. Fosco and colleagues (2016) also found that adolescent females in their sample were more likely to be physically abusive in their relationships if they had higher levels of conflict with their parents. Conversely, other researchers have refuted the importance of parenting in explaining TDV. For example, Makin-Byrd and colleagues (2013) found that parenting practices were not significantly related to TDV, thus highlighting the need to further examine poor parenting as a risk marker for physical TDV.

**Parental Support and TDV**

Turning from poor parenting practices to parental support, in the form of child-parent bonding and parental connectedness, previous researchers have found that parental support can serve as a protective marker against later TDV (Ahonen, & Loeber, 2016; Champion, Foley, Sigmon-Smith, Sutfin, & DuRant, 2008; Livingston, Eiden, Lessard, Casey, Henrie, & Leonard, 2018; Maas et al., 2010). In terms of attachment theory, child-parent bonding and connectedness lead to secure attachment, establishing positive relational frameworks for the later relationships, and protecting adolescents from unhealthy relational patterns (Bowby, 1988; Lee et al., 2014). To illustrate, in their study on the etiological pathways of TDV development, Livingston and colleagues (2018) found that maternal warmth and sensitivity at 36 months was negatively correlated with later TDV involvement. Similarly, Maas and colleagues (2010) found that bonding to parents served as a protective marker against TDV victimization. However, a study on Latino adolescents and their parents found that parental monitoring and parental
communication had no significant association with physical TDV victimization (Reyes et al., 2016), highlighting the need to better understand the role parental relationship quality plays in predicting TDV.

**The Present Study**

Although previous researchers have begun to fill a gap in what we know about risk markers of TDV, many have included both adolescents and young adults (Hébert et al., 2017) or have examined undifferentiated TDV rather than examining whether the same variables were risk markers for the various forms of TDV (Park & Kim, 2018). Thus, the present study will extend these meta-analyses by focusing solely on adolescents (i.e., those between the ages of 13-19) and parceling out physical dating violence victimization and perpetration from other types of TDV. We chose to limit our sample to 13-19 year olds because romantic relationships are a salient part of the adolescent developmental stage and violence in relationships peaks at the age of 16-17 (Foshee et al., 2009), making adolescence a critical time for establishing relational patterns (Collins, Welsh, & Furman, 2009). The purpose of the present study is to examine family-of-origin factors, which include attachment style, witnessing inter-parental violence, as well as the quality of the parent-child relationship (i.e., experiencing abuse as a child, poor parenting, and parental support), as risk or protective markers of physical TDV victimization and perpetration. Additionally, this study aims to identify the strongest family-of-origin risk marker for both TDV perpetration and victimization, as well as the strongest family-of-origin risk marker for males and females.
Chapter 2 - Method

Literature Search

This meta-analysis followed the procedure for selection and identification of studies outlined by Card (2011). The data in this study were from a larger meta-analysis that examined all risk markers as they related to TDV. For the larger meta-analysis, the process included two phases of gathering studies reporting on risk markers as they related to TDV to be included. In the first phase, studies for review were obtained from database searches (ERIC, PsychInfo, Proquest Research Library, Proquest Dissertations and Theses, PubMed, and Social Services Abstracts), using specific search terms regarding teens (teen*, adolescen*, high school), dating (dating, roman*, intima*, relationship, couple, partner), violence (violen*, aggress*, victim*, perpetrat*, abuse), and risk markers (correlate*, path*, risk factor, predict*, associate*) to conduct a comprehensive search of literature available from 1997 to 2017. The second search phase followed the same search criteria, and used the same databases, but was extended to examine articles from 2017-2018. The second search was conducted to ensure the inclusion of the most recent literature on TDV risk markers.

Inclusion and Exclusion Criteria

Studies were included in the analysis of the larger meta-analysis if they met the following inclusion criteria: (a) they measured physical, emotional/verbal, or sexual dating violence; (b) the sample consisted of adolescents between the ages of 13 and 19 (studies with a wider age range that encompassed adolescents were not included unless they reported data separately for the adolescent subsample); (c) the sample was considered normative (i.e., studies of special populations such as those selected for medical or psychological referrals, pregnant or parenting adolescents, or homeless youth were excluded); (d) the studies were quantitative and provided
statistical information allowing for the calculation of one or more bivariate effect sizes; (e) the studies were published in peer reviewed journals or as a thesis or dissertation; and (f) the studies were conducted in the United States and written in English.

Included Studies

A total of 11,134 studies were found through the databases in the first phase of article selection, an additional 1,025 studies were identified in the second phase of article selection, resulting in a total of 12,159 studies to review (see Figure 1). Of those articles, a total of 971 studies met the original inclusion criteria; however, 342 of those studies were duplicates so only the remaining 629 were considered for further screening. During the second round of screening, 196 studies were excluded because they did not measure TDV, meaning they examined adult IPV or combined TDV with peer violence in the same measure. An additional 140 studies were excluded because they did not examine adolescents aged 13-19, 102 studies were excluded because they did not provide statistics that allowed for the calculation of at least one effect size to use in the analysis, 63 studies were excluded because they did not examine a population of adolescents in the United States, 26 studies were excluded because they used a non-normative sample, 17 studies were excluded because they did not include quantitative data, and one study was excluded because it was not in English. Finally, for this specific meta-analysis, 57 studies were excluded because they did not include risk markers that were of interest to this study (i.e., family-of-origin risk markers) and seven were excluded because they did not measure physical TDV. This resulted in a total of 27 studies, yielding 81 effect sizes examining physical TDV perpetration and victimization to be included in the study.
Figure 1: Flowchart of Study Selection

Total Studies Identified
(n = 12,159)

Studies Screened
(n = 629)

# of Studies Excluded
(n = 602)
Reason for exclusion:
196 Physical TDV not measured as outcome
140 Incorrect age range
102 No usable statistics
57 No family-of-origin risk markers
63 Not in United States
26 Non-normative sample
17 Not quantitative data
1 Not in English

Duplicates
(n = 342)

Studies Included
(n = 27)

Effect sizes from studies
(k = 81)
Coding Procedures

Recommended procedures for coding articles to be included in a meta-analysis were followed in this study (Card, 2011; Hunter & Schmidt, 2004). Specifically, a 28-item code sheet was created in order to capture pertinent information from each study. The code sheet included statistical information to calculate bivariate effect sizes, the gender of the perpetrator and victim, the risk markers examined, the sample size, how TDV was measured, and other useful information. All of the articles included in the study were cross-coded by two research team members with a 97.18% agreement rate.

Statistical Approach and Analyses

A random-effects model was utilized to account for true population differences between studies and allow for greater generalization of the results of this study (Card, 2012). All meta-analyses have the potential to exclude studies that were never published, which is known as the “file drawer problem” (Hunter & Schmidt, 2004). In order to combat this potential limitation to the meta-analyses, we conducted three distinct tests to examine potential publication bias. Specifically, we conducted Duval and Tweedie’s (2000) trim and fill test, calculated Rosenthal’s classic fail-safe N’s (Rosenthal, 1979), and calculated Orwin’s fail-safe N’s (Orwin, 1983). The purpose of Duval and Tweedie’s (2000) trim and fill test was to identify and correct funnel plot asymmetry that can stem from publication bias. Specifically, smaller studies that are causing the asymmetry are removed, then the trimmed funnel plot is used to estimate the true center of the funnel, and finally the smaller studies are replaced around the center (Duval & Tweedie, 2000). The classic fail-safe N was used to calculate the number of non-significant studies that would be required to nullify the current effect, bringing the p-value above 0.05 (Rosenthal, 1979). In order to determine if the results were robust against potential publication bias, we followed the
recommended cutoff, which is that the number of non-significant studies required to nullify the current effect is higher than the number of effect sizes present in the study, multiplied by five and then adding ten (Rosenthal, 1979). If the classic fail-safe N exceeded this number, the effect size for that risk marker is robust against potential publication bias. Finally, Orwin’s fail-safe N (1983) was used to test how many potential missing studies with an effect size magnitude of $r = .00$ it would take to bring the mean effect size to $r = .10$ (Cohen, 1992).

Comprehensive Meta-Analysis 3.0 software (Borenstein, Hedges, Higgins & Rothstein, 2014) was used to enter and calculate effect sizes for attachment, witnessing inter-parental violence, experiencing abuse as a child, poor parenting, and parental support, or lack thereof, as risk markers for both physical TDV victimization and perpetration. First, the strength of each risk marker (attachment, witnessing inter-parental violence, experiencing abuse as a child, poor parenting, and lack of parental support) was analyzed for physical TDV perpetration, and then again for physical TDV victimization. Next, we compared each family-of-origin risk marker that had at least three effect sizes for both physical TDV perpetration and victimization on whether it had a stronger link with perpetration or victimization. Then we compared males and females on each family-of-origin risk marker that had at least three effect sizes to test the strength of the risk marker for both male and female adolescents. In order to analyze the strength of each risk marker, we used Cohen’s (1992) suggested criteria for assessing the magnitude of the effect sizes as trivial ($r < .01$), small ($r = .10$), medium ($r = .30$), or large ($r = .50$).
Chapter 3 - Results

Avoidant and Anxious Attachment

Anxious attachment was a small to medium risk marker for TDV perpetration ($r = .20, p < .001$; see Table 1). Avoidant attachment was also a small risk marker for TDV perpetration ($r = .07, p < .001$). However, there were not at least three effect sizes to analyze anxious or avoidant attachment as risk markers for TDV victimization (Cumming, 2012). As a result, we were unable to compare the strength of each attachment variable for victimization and perpetration.

Witnessing Inter-Parental Violence

Witnessing inter-parental IPV was a small risk marker for TDV victimization ($r = 0.13, p < .001$) and perpetration ($r = 0.15, p < .001$). When examining if witnessing inter-parental violence was a significantly stronger risk marker for TDV victimization or perpetration, there was no significant difference between the strength of witnessing inter-parental violence as a risk marker for TDV victimization and perpetration ($Q = 0.25, p = 0.62$; see Table 2). When comparing the strength of witnessing inter-parental IPV as a risk marker for TDV perpetration between males ($r = 0.15, p <.05$) and females ($r =0.23, p < .01$), there was no significant difference ($Q = 0.57, p = 0.45$; see Table 3).

Experiencing Abuse as a Child

Experiencing abuse as a child was a small to medium risk marker for TDV victimization ($r = .22, p < .001$) and a small risk marker for TDV perpetration ($r = .11, p < .001$). When examining if experiencing abuse as a child was a significantly stronger risk marker for TDV victimization or perpetration, it was found that experiencing abuse as a child was a significantly stronger risk marker for TDV victimization than perpetration ($Q = 9.40, p < .01$). We were
unable to run analyses comparing the strength of experiencing abuse as a child as a risk marker between males and females.

**Poor Parenting**

Poor parenting was a small risk marker for TDV victimization ($r = .09$, $p < .001$), but not for TDV perpetration ($r = .02$, $p = .14$). When examining if poor parenting was a significantly stronger risk marker for TDV victimization or perpetration, there was no significant difference in the strength of poor parenting as a risk marker for TDV victimization or perpetration ($Q = 2.91$, $p = .09$). We were unable to run analyses comparing the strength of poor parenting as a risk marker between males and females.

**Parental Support**

When examining parental support as a risk marker for TDV, we found that parental support had a small, negative association with TDV victimization ($r = -0.08$, $p < .001$). Parental support was also negatively associated with TDV perpetration, but the relationship was not significant ($r = -0.05$, $p = .106$). When examining if parental support was a significantly stronger protective marker for TDV perpetration or victimization, there no significant difference between the strength of parental support as a protective marker against TDV victimization and perpetration ($Q = 0.77$, $p = 0.38$). When comparing the strength of parental support as a protective marker against TDV perpetration for males and females, parental support was a significantly stronger protective marker ($Q = 8.51$, $p < .01$) against TDV perpetration for females ($r = -.032$, $p < .01$) than for males ($r = -0.02$, $p = .60$).
### Table 1: Risk Markers for Physical Teen Dating Violence Victimization and Perpetration

<table>
<thead>
<tr>
<th>Risk Marker</th>
<th>Victimiation</th>
<th></th>
<th></th>
<th>Perpetration</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>K</td>
<td>Mean r</td>
<td>95% CI</td>
<td>k</td>
<td>Mean r</td>
<td>95% CI</td>
</tr>
<tr>
<td>Anxious Attachment</td>
<td>-</td>
<td>-</td>
<td></td>
<td>3</td>
<td>0.20***</td>
<td>[0.16, 0.23]</td>
</tr>
<tr>
<td>Avoidant Attachment</td>
<td>-</td>
<td>-</td>
<td></td>
<td>3</td>
<td>0.07***</td>
<td>[0.04, 0.11]</td>
</tr>
<tr>
<td>Experiencing Abuse as a Child</td>
<td>8</td>
<td>0.22***</td>
<td>[0.18, 0.27]</td>
<td>5</td>
<td>0.11***</td>
<td>[0.05, 0.17]</td>
</tr>
<tr>
<td>Parental Support</td>
<td>11</td>
<td>-0.08***</td>
<td>[-0.13, -0.03]</td>
<td>16</td>
<td>-0.05</td>
<td>[-0.12, 0.01]</td>
</tr>
<tr>
<td>Poor Parenting</td>
<td>10</td>
<td>0.09***</td>
<td>[0.04, 0.14]</td>
<td>6</td>
<td>0.02</td>
<td>[-0.01, 0.04]</td>
</tr>
<tr>
<td>Witnessing Inter-parental Violence</td>
<td>7</td>
<td>0.13***</td>
<td>[0.06, 0.21]</td>
<td>18</td>
<td>0.15***</td>
<td>[0.07, 0.23]</td>
</tr>
</tbody>
</table>

Note: $k = \text{number of effect sizes}; \ r = \text{point estimate of the effect size}; \ CI = \text{confidence interval}; \ *p < .05; \ **p < .01; \ ***p < .001$
Table 2: Comparing Risk Markers for Physical TDV Between Perpetration and Victimization

<table>
<thead>
<tr>
<th>Risk Marker</th>
<th>$k$</th>
<th>Mean $r$</th>
<th>95% CI</th>
<th>$Q^b$</th>
<th>$p$-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experiencing Abuse as a Child</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Perpetration</strong></td>
<td>5</td>
<td>0.11***</td>
<td>[0.05, 0.16]</td>
<td>9.40</td>
<td>0.002**</td>
</tr>
<tr>
<td><strong>Victimization</strong></td>
<td>8</td>
<td>0.22***</td>
<td>[0.18, 0.27]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poor Parenting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Perpetration</strong></td>
<td>6</td>
<td>0.02</td>
<td>[-0.04, 0.07]</td>
<td>2.91</td>
<td>0.09</td>
</tr>
<tr>
<td><strong>Victimization</strong></td>
<td>10</td>
<td>0.08***</td>
<td>[0.04, 0.12]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parental Support</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Perpetration</strong></td>
<td>16</td>
<td>-0.05</td>
<td>[-0.10, 0.00]</td>
<td>0.77</td>
<td>0.38</td>
</tr>
<tr>
<td><strong>Victimization</strong></td>
<td>11</td>
<td>-0.08**</td>
<td>[-0.14, -0.03]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Witnessing Inter-parental Violence</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Perpetration</strong></td>
<td>18</td>
<td>0.16***</td>
<td>[0.09, 0.23]</td>
<td>0.25</td>
<td>0.62</td>
</tr>
<tr>
<td><strong>Victimization</strong></td>
<td>7</td>
<td>0.12*</td>
<td>[0.00, 0.25]</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: $k = \text{number of effect sizes}; \ r = \text{point estimate of the effect size}; \ CI = \text{confidence interval}; \ Q^b = \text{heterogeneity of between-group differences with } k-1 \text{ degrees of freedom.} \ \ \ \ * p < .05; \ **p < .01; \ ***p < .001.$
Table 3: Comparing Risk Markers for Physical TDV Perpetration Between Males and Females

<table>
<thead>
<tr>
<th>Risk Marker</th>
<th>k</th>
<th>Mean r</th>
<th>95% CI</th>
<th>Q^b</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Parent Support</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>6</td>
<td>-0.02</td>
<td>[-0.08, 0.05]</td>
<td>8.51</td>
<td>0.004**</td>
</tr>
<tr>
<td>Females</td>
<td>3</td>
<td>-0.32**</td>
<td>[-0.49, -0.13]</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Witnessing Inter-parental Violence</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Males</td>
<td>7</td>
<td>0.15*</td>
<td>[0.00, 0.28]</td>
<td>0.57</td>
<td>0.449</td>
</tr>
<tr>
<td>Females</td>
<td>6</td>
<td>0.23**</td>
<td>[0.07, 0.37]</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: k = number of effect sizes; r = point estimate of the effect size; CI = confidence interval; Q^b = heterogeneity of between-group differences with k-1 degrees of freedom.

* p < .05; **p < .01; *** p < .001.
Analyses of Publication Bias

In order to combat the “file drawer problem” that affects all meta-analyses (Hunter & Schmidt, 1990), we computed Duval and Tweedie’s trim and fill test (2000), the classic fail-safe N test (Rosenthal, 1979), and Orwin’s fail-safe N test (Orwin, 1983) to analyze the possibility of publication bias on the significant results found in the meta-analysis (see Table 4).

For TDV victimization, all risk markers were robust against potential publication bias. For TDV perpetration, anxious attachment, experiencing abuse as a child, and witnessing interparental violence were all found to be robust against potential publication bias. Unsurprisingly, avoidant attachment was not found to be robust against potential publication bias because avoidant attachment had a weaker correlation with TDV than the other risk markers, and only three studies examined avoidant attachment as a risk marker for TDV perpetration. Due to this, avoidant attachment as a risk marker for TDV perpetration should be interpreted cautiously.
Table 4: Duval and Tweedie’s Trim and Fill (Random Effects), Classic Fail-Safe N, and Orwin’s Fail-Safe N Tests for Risk Factors for TDV

<table>
<thead>
<tr>
<th>Outcome Measure</th>
<th>Trim and Fill</th>
<th>Classic</th>
<th>Orwin’s Fail-Safe N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td># of Studies</td>
<td>Imputed Studies</td>
<td>Fail-Safe N</td>
</tr>
<tr>
<td><strong>Perpetration</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anxious Attachment</td>
<td>3</td>
<td>1</td>
<td>92</td>
</tr>
<tr>
<td>Avoidant Attachment*</td>
<td>3</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>Experiencing Abuse as a Child</td>
<td>6</td>
<td>1</td>
<td>49</td>
</tr>
<tr>
<td>Witness Parental IPV</td>
<td>10</td>
<td>2</td>
<td>328</td>
</tr>
<tr>
<td><strong>Victimization</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experiencing Abuse as a Child</td>
<td>5</td>
<td>1</td>
<td>230</td>
</tr>
<tr>
<td>Parent Support</td>
<td>5</td>
<td>0</td>
<td>63</td>
</tr>
<tr>
<td>Poor Parenting</td>
<td>5</td>
<td>0</td>
<td>50</td>
</tr>
<tr>
<td>Witness Parental IPV</td>
<td>4</td>
<td>0</td>
<td>44</td>
</tr>
</tbody>
</table>

* Not robust against possible publication bias
Chapter 4 - Discussion and Conclusion

The present study begins to fill a gap in what we know about the risk markers for physical TDV because it focuses exclusively on physical TDV perpetration and victimization among adolescents between the ages of 13 and 19. Additionally, when able, this study compared the strength of risk markers between males and females and between perpetration and victimization. Overall, we found that experiencing abuse as a child is the strongest risk marker for physical TDV victimization and anxious attachment is the strongest risk marker for physical TDV perpetration. Additionally, witnessing inter-parental violence is a significant risk marker for both TDV perpetration and victimization, while poor parenting is a significant risk marker for TDV victimization, and avoidant attachment and experiencing abuse as a child were significant risk markers for TDV perpetration. Moreover, parental support is a significant protective marker against physical TDV victimization.

The finding that experiencing abuse as a child is the strongest risk marker for TDV victimization is consistent with previous research (e.g. Earnest & Brady, 2016; Kennedy, 2008; Maas et al., 2010) that has found a relationship between having been abused as a child and TDV victimization. Additionally, our finding that experiencing abuse as a child is a significant risk marker for TDV perpetration is also consistent with previous research (Foshee, Bauman, & Linder, 1999; Wolf & Foshee, 2003). These findings also support social learning theory which would suggest that adolescents who are victims of abuse as children learn that violence is an effective way to handle conflict because of messages sent by their parents normalizing and rationalizing violence. Adolescents then internalize these messages, causing them to develop social scripts that predispose them for having an increased likelihood of becoming a victim of or perpetrating TDV (Tyler, Brownridge, & Melander, 2011).
Experiencing abuse as a child breaks down secure attachment bonds between the parent and child, resulting in an insecure attachment and an unhealthy relational model. When choosing a partner, adolescents might choose someone who fits the working model they developed from their parental relationship, which might include abusive behaviors (Hare, Miga, & Allen, 2009). Adolescents with insecure attachment from experiencing abuse as a child might also perpetrate violence because of their negative relationship models. Anxiously attached individuals might lash out with violence when their partner tries to pull away because of their fear of abandonment and their inability to handle their emotions in a constructive way, thus also explaining the finding that anxious attachment is the strongest risk marker for TDV perpetration. This finding is consistent with previous research linking anxious attachment and TDV perpetration (Foshee, Bauman, & Linder, 1999; Tussey, et al., 2018).

Also consistent with previous research is our finding that avoidant attachment is associated with TDV perpetration (Grych & Kinsfogel, 2010). This finding also supports attachment theory, such that avoidantly-attached individuals might lash out in violence if their partners become too emotionally close because avoidant attachment is characterized by a fear of being too close (Lee et al., 2014). However, this finding should be interpreted with caution because the effects were small and avoidant attachment as a risk marker was not robust against publication bias. Future research should closely examine the relationship between avoidant attachment and TDV perpetration and victimization to further our understanding of this relationship.

Additionally, witnessing inter-parental violence was a significant risk marker for TDV perpetration, a finding consistent with previous research (e.g., Arriaga & Foshee, 2004; Chapple, 2003; Earnest & Brady, 2016; Miller et al, 2011; Temple et al., 2013; Wolf & Foshee, 2003). We
also found it was a significant risk marker for physical TDV victimization. These findings are best explained through social learning theory, which posits that adolescents learn their behaviors from observing others (i.e., their parents) and replicating the behavior (i.e., violence). Additionally, witnessing violence sends messages that become part of the adolescent’s framework for future relationships. The messages are normalized and rationalized through continued parental abuse, and, in turn, replicated by the adolescent (Tyler, Brownridge, & Melander, 2011). When examining if witnessing inter-parental violence was a stronger risk marker for TDV victimization and perpetration for females or males, we found no significant differences. It is possible that we did not find significant gender differences because we were not able to differentiate between mother-to-father or father-to-mother violence as has been done in previous studies (e.g., Karlsson et al., 2016; Temple et al., 2013). Future research should continue to examine if witnessing inter-parental violence is stronger for one gender over the other and if witnessing mother-to-father or father-to-mother violence relates to gender differences. Further research on gender differences would be beneficial in tailoring intervention and prevention programs for males and females.

Finally, poor parenting was a significant risk marker for TDV victimization only, a finding that partially aligns with previous research (Chase et al., 2002; Chiodo et al., 2012; Fosco et al., 2016). Our findings only partially align because previous researchers have linked poor parenting with TDV perpetration more frequently than with TDV victimization, or have not differentiated between perpetration and victimization. It is possible that poor parenting, in the form of neglect, conflict, or low monitoring, breaks down the secure attachment bonds and models unhealthy relational patterns, which then predisposes adolescents to becoming a victim in their romantic relationships because of the relational expectations they created from their
parental models. Poor parenting could also decrease adolescents’ feelings of worth, making them feel they are deserving of victimization. Future research should continue to examine the relationship between poor parenting and TDV victimization versus perpetration in order to understand better the developmental pathway through which poor parenting relates to TDV and clarify the inconsistent findings.

In terms of protecting against TDV, we found that parental support serves as a significant protective marker against TDV victimization, a finding that is consistent with previous research (Ahonen, & Loeber, 2016; Champion et al., 2008; Livingston et al., 2018; Maas et al., 2010). It is possible that parent support, in the form of parent-child bonding, relationship quality, or connectedness, serves an important role in establishing a secure attachment, which in turn establishes healthy relationship frameworks for adolescents and decreases the likelihood of TDV (Maas et al., 2010). On the other hand, parental support was not significant in protecting against TDV perpetration. One possible explanation for this finding is that the cumulative effect of the various risk markers might overshadow the effect that protective markers have on TDV perpetration. Another explanation is that negative factors have a stronger influence on adolescents’ perpetration of TDV, a finding also noted in Park and Kim’s (2018) meta-analysis. Specifically, in their meta-analysis, protective markers had little to no power in protecting against TDV perpetration, arguing that intervention and prevention programs need to focus primarily on decreasing risk markers instead of increasing protective markers (Park & Kim, 2018). This finding also highlights that risk markers are different for victimization and perpetration, supporting the need for future research to examine risk markers for victimization and perpetration separately.
Additionally, parental support plays a stronger protective role for females than it does for males. This might be because gender socialization teaches girls to be more relational, particularly with their parents; thus, the parent-child relationship is more influential for them than it is for males. Further research on the risk and protective factors for TDV among males is key in fully understanding how to develop TDV prevention and intervention geared toward male adolescents.

Limitations

Although a thorough search of the databases was conducted in order to gather articles for this study it is possible that we missed some published studies (e.g., the articles was not indexed in one of the databases we included in our search). In addition, even though we ran analyses to address the “file-drawer problem,” it is still a limitation all meta-analyses face (Hunter & Schmidt, 2004). Another limitation is that we only examined family-of-origin risk markers, thus excluding all other risk markers for TDV. Although the family plays an important role for adolescents, there are other important contextual factors that should be considered in future research (e.g., peers, school or community violence). Additionally, we only examined physical TDV; thus, we cannot generalize our findings to risk markers of psychological or sexual violence. Future research should examine if the risk markers for other types of TDV are similar to or different from those found in this study. The small number of studies obtained for each risk marker is another limitation. If three or more studies were not obtained for a risk marker, we were unable to run analyses to assess the strength of the risk marker. Future research should continue to examine the relationships of family-of-origin risk markers and TDV victimization and perpetration, especially expanding upon how attachment is related to victimization.
Implications

Results from this meta-analysis highlight the importance of screening for child abuse and anxious attachment when working with adolescents in order to identify who is at risk for TDV victimization or perpetration. Additionally, when working to prevent TDV, family life educators and clinicians can focus on reshaping the influence of the past. For example, programs can focus on how attachment with parents is influential on outcomes in dating relationships. They can address detrimental messages sent by parents about appropriate ways to handle conflict and encourage adolescents to identify if they have internalized messages learned from parents. Professionals can also help adolescents re-work their relational models so they can form healthy expectations for future relationships. Professionals can also work with the whole family in order to address the family context and its influence on adolescents’ engagement with TDV. Working with the whole family can allow the growth of parental support to help in preventing TDV and improve attachment between adolescents and parents. Additionally, raising awareness of these risk markers might allow parents to use these findings to inform their parenting practices and model healthy relationships for their children.

Conclusions

This meta-analysis examined the connection between family-of-origin factors (i.e., attachment, witnessing inter-parental violence, experiencing abuse as a child, poor parenting, and parental support) and TDV perpetration and victimization for male and female adolescents. We found that anxious attachment was the strongest risk marker for TDV perpetration and that experiencing abuse as a child was the strongest risk marker for TDV victimization. We also found that parental support was a significant protective marker against TDV victimization, but
not perpetration. Our findings suggest that addressing family factors in TDV prevention and intervention programs and increasing parental support might decrease TDV.
References

* Indicates that the study was used in the meta-analysis


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