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Summary Report:

Developmental Pathways of Teen Dating Violence in a High-Risk Sample

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## Abstract

**Objectives:** This research examined the roles of parental psychopathology, marital conflict and parenting behaviors in the development of teen dating violence (TDV) among a sample of adolescents at high risk for aggressive behavior due to parental alcohol problems. The research had two aims: (1) to examine the developmental pathways to TDV in late adolescence from early childhood risk factors (i.e., parental psychopathology and marital conflict); and (2) examine the association of proximal risk and protective factors in early adolescence to TDV involvement in late adolescence. Two analytical models were tested in pursuit of these aims.

**Method:** Adolescents ( $M=17.68$  years of age) who had been participating, along with their parents, in a longitudinal study of the effects of parental alcohol problems on child development completed an additional wave of survey data in 11-12<sup>th</sup> grades. Families ( $N=227$ ) were recruited from county birth records when the child was 12 months of age and had been previously assessed at 12-, 18-, 24-, 36-months, kindergarten, 4<sup>th</sup>, 6<sup>th</sup>, and 8<sup>th</sup> grades. For the current wave of data collection, adolescent participants ( $n=185$ ) used computer-assisted interviewing to complete questionnaires assessing their individual characteristics, family and peer relationships, substance use, dating behaviors and involvement in TDV as a victim or perpetrator. Data from previous time points beginning at 12 months were used to predict involvement in TDV.

**Results: Etiology of TDV.** Based on prior research and developmental theory, two potential pathways through which parental alcohol problems in infancy may contribute to aggression and adolescent involvement in TDV were examined: a direct pathway from marital conflict and an indirect pathway via parenting behavior and self-regulation.

Results indicated that marital conflict in infancy and early childhood did not directly predict TDV in adolescence; however, there was an indirect association through poor self-regulation in middle childhood which in turn contributed to early adolescent aggression and ultimately, TDV in late adolescence. There was also support for indirect pathways from maternal depression and paternal antisocial behavior in infancy to TDV in adolescence through childhood and adolescent aggression, and from paternal alcohol problems in infancy via lower maternal warmth which contributed to lower child self-regulation in the preschool years and aggressive behavior across childhood and early adolescence. In addition, fathers' antisocial behavior was associated with high sibling problems in middle childhood, which was a unique predictor of TDV in late adolescence.

**Maternal warmth as a moderator between exposure to marital conflict and TDV.** A

second model examined whether positive parenting in early adolescence could protect against TDV in late adolescence among youth exposed to high marital conflict. Results indicated that maternal acceptance in early adolescence moderated the relationship between exposure to marital conflict in early adolescence and TDV involvement in late adolescence, with the combination of low maternal acceptance and high conflict exposure in early adolescence predicting the highest rates of TDV in late adolescence.

**Implications:** Parental psychopathology and marital conflict in infancy set the stage for a cascade of negative developmental outcomes that contribute to the development of aggression and TDV. Parenting behaviors, particularly maternal warmth, can be protective against TDV by promoting self-regulation. Mothers with alcoholic partners tend to exhibit lower warmth and sensitivity towards their children than those in non-alcoholic families, underscoring the need for members of alcoholic families to receive

support and intervention. Intervening with families of young children who have been referred for domestic violence and/or substance abuse issues to promote positive parenting and conflict management may be an important step towards breaking the intergenerational cycle of violence.

## Purpose

Involvement in teen dating violence (TDV) can jeopardize adolescent development, health and safety, making it a serious concern for public health and criminal justice. Although several risk factors for TDV involvement have been identified, the etiology of TDV is not well understood. This is largely due to the lack of theoretical foundation and the dearth of longitudinal research focusing on TDV, especially research with samples at high risk for TDV involvement (National Institute of Justice, 2011; Shorey, Cornelius, & Bell, 2008). Children of alcoholics may be at high risk of TDV involvement given their increased exposure to marital violence and heightened risk for a variety of adverse developmental outcomes, including aggressive behavior, poor self-regulation, underage drinking and substance use (Donovan, 2004; Edwards, Eiden, Colder, & Leonard, 2006; Eiden, Colder, Edwards, & Leonard, 2009), all of which are risk factors for TDV (Eaton, Davis, Barrios, Brener, & Noonan, 2007; Maas, Fleming, Herrenkohl, & Catalano, 2010). To date, however, the developmental pathways through which these early childhood developmental risk factors unfold to contribute to TDV involvement have not been explored. The purpose of the current research was to examine the developmental pathways, including risk and protective factors that contribute to TDV involvement in a sample of adolescents who had been followed since 12-months of age and who were at high-risk due to parental alcohol problems.

The research was guided by two theoretical frameworks. The ecological/transactional model of development (Cicchetti & Lynch, 1993) incorporates the characteristics of the child, the caregivers, and environmental forces into a dynamic and interactive system that impacts developmental outcomes. Consistent with this, in this research we propose that parental characteristics of psychopathology (alcohol problems, depression, antisocial behavior) contribute to a family environment characterized by conflict and poor parenting, which in turn contributes to low self-regulation and aggressive behavior in children. Conversely, prior research (e.g., Edwards et al., 2006) indicates that positive parenting (i.e., maternal warmth and

sensitivity and acceptance) may buffer the effects of the environment on child aggression. Our research was also guided by the dynamic cascade model of development (Dodge et al., 2009) which posits that early experiences prospectively predict the onset of adolescent problem behaviors through the role of cascading effects, where disruptions in salient issues at each stage of development prospectively predicts salient outcomes at the next stage. The aims of the research are as follows:

**Aim 1. To examine the direct and indirect (mediated) associations between early childhood risk factors and the proximal predictors of TDV in early adolescence.**

**Hypothesis 1:** We hypothesized that early childhood risk factors (e.g., parental psychopathology, marital conflict) would be indirectly associated with early adolescent risk outcomes (e.g., aggression, peer conflict) via poor parenting, low self-regulation, aggression and sibling conflict in childhood.

**Aim 2. To examine the role of early adolescent risk factors as proximal prospective predictors of TDV in late adolescence.**

**Hypothesis 2:** Based on prior research, we expected early adolescent risk factors (i.e., aggression, peer conflict) and exposure to marital conflict to be the proximal predictors of TDV in late adolescence.

**Hypotheses 3:** We also hypothesized that parenting behavior in early adolescence (i.e., maternal acceptance) would buffer the association between exposure to marital conflict in early adolescence and TDV involvement in late adolescence.

Two studies were conducted in pursuit of these aims. In Study 1, we examined an etiological model examining developmental pathways from parental psychopathology in infancy to adolescent TDV involvement. Hypotheses 1 and 2 were tested as part of this study. The second study examined whether the relationship between exposure to marital conflict in early adolescence and TDV involvement in late adolescence may be moderated by maternal acceptance in early adolescence (Hypothesis 3).

## Participants

Participants were 185 adolescents (95 girls, 90 boys) who were part of a longitudinal study of the effects of alcohol problems on parenting and infant and child development. The initial sample consisted of 227 families (116 girls, 111 boys) with 12-month-old infants who were recruited from county birth records (Eiden et al., 2009). At recruitment, families were classified as being in the nonalcoholic group consisting of parents with no or few alcohol problems since the child's birth ( $n = 102$ ) or the father alcoholic group with families in which the father met criteria for alcohol abuse or dependence ( $n = 125$ ). Within the father alcoholic group, 95 mothers were light drinkers or abstainers, and 30 mothers were heavy drinkers or had current alcohol problems. Grouping was based upon father's alcohol status given the low number of mothers with alcohol problems and the fact that in most of the families in which mothers were problematic drinkers, the fathers were also problem drinkers. Parents and children were assessed at 12-, 18-, 24-, 36-months, kindergarten, 4<sup>th</sup>, 6<sup>th</sup>, 8<sup>th</sup>, and 11<sup>th</sup>/12<sup>th</sup> grades.

At the time of the current assessment, the participants were in 11/12<sup>th</sup> grade and on average 17.68 ( $SD = 1.89$ ) years of age. The majority of the adolescents identified as White (91.9%), 2.7% identified as Black/African American, and 5.4% as multiracial. Slightly less than 2% of the sample identified as being Hispanic/Latino. Most of the students were in 11<sup>th</sup> (35.1%) or 12<sup>th</sup> grades (42.5%), although 18.3% were enrolled in post high school education (college or trade school) and 2.2% had dropped out before completing high school.

## Design and Methods

Families enrolled in the study were contacted by phone to participate in the current wave of data collection. Adolescents over 18 years of age were contacted directly by project staff. Contact was made through parents for those who had not yet turned 18. Contact information had been maintained and updated from previous waves of data collection. Figure 1 depicts the recruitment and retention outcomes from the original sample.

Participants came in to the Research Institute to complete a series of questionnaires using computer-assisted self-interviewing (CASI). Audio CASI was available for those who had difficulty reading or who wanted the questions read to them. Programming was done with SPSS-MR, which permitted real time entry of the data. Upon arrival, the procedures were explained to the participant and informed consent/assent was obtained. Parents who accompanied their minor child to the interview were escorted to another room to wait after providing consent. Survey administration took 1 ½ - 3 hours to complete. Participants were able to take breaks as needed. The participant completed the survey independently; however, the interviewer remained in the room to answer questions if needed. In the event that a family moved out of the area or was unable to come in to the Research Institute for some other reason, the questionnaires were available on-line via internet. Forty-two interviews were completed via web. All participants were compensated with a check for \$75. Procedures were approved by the University at Buffalo Social and Behavioral Sciences Institutional Review Board and by the National Institute of Justice's Human Subjects' Protection Officer.

As part of the survey, participants answered questions about their parent-child relationship, family processes, substance use, peer norms, pubertal development and relationship behaviors. Involvement in teen dating violence was assessed with The Conflict in Adolescent Dating Relationships Inventory (CADRI; Wolfe et al., 2001), a self-report questionnaire that assesses multiple forms of abusive behavior (physical, sexual, threatening, relational, and emotional/verbal) that can occur between dating adolescents. Teens reported on their own behavior as well as their partners' by indicating how often each behavior occurred within the context of their current or most recent romantic relationship. Items are rated on a four-point scale ranging from 1 = *never* to 4 = *often*. A full description of the other measures used in these analyses can be found in Livingston, Lessard, Casey, Henrie, Leonard, & Eiden (2016).

## **Data Analyses**

### **Missing Data (for all analyses)**

As would be expected of any longitudinal study involving multiple family members, there were incomplete data for some participants at one or more of the five assessment points included in this study. Of the 227 families included in analyses, 184 (81.1%) children provided data at 12<sup>th</sup> grade. There were some group differences between families with missing versus complete data. Those with missing data at 12<sup>th</sup> grade had mothers that were younger and less educated at baseline, fathers with more antisocial behavior, and lower maternal and paternal warmth at kindergarten. There were no differences between the two groups of families (complete vs. missing data) on any of the child outcome variables. Although the data were not missing completely at random because of these group differences, data did meet criteria for being missing at random (MAR; Little and Rubin, 1989). Full-information maximum likelihood (FIML) estimation procedures were used with this final sample to estimate parameters (Arbuckle, 1996). This missing data approach includes all cases in the analysis, even those with missing data. FIML produces more accurate estimates of population parameters than would be obtained using listwise deletion.

**Teen Dating Violence.** Of the 184 children who provided data at 12<sup>th</sup> grade, 144 (77.4%) had been, or were currently, in a relationship and could provide valid data on TDV. Only participants who had been in a relationship completed the CADRI scale. Sub-scales of abuse (i.e., physical, threatening, sexual, relational, emotional) were created for perpetration and victimization, using the scoring methods recommended by Wolfe et al. (2001). Scores on the conflict resolution scale were not included in these analyses. The prevalence (yes/no) of each type of dating violence by perpetration and victimization as measured by the CADRI is presented in Table 1. Given the relatively low rates of TDV other than emotional abuse in this sample, scores from each scale were averaged to create a total TDV score. Scores for victimization and perpetration were combined because they were highly correlated ( $r = .85$ ), suggesting that these are measuring the same underlying construct in teen dating violence. The internal consistency of this TDV involvement scale was  $\alpha = .89$ . The mean of the TDV

involvement scale is 3.83 ( $SD = 4.71$ , range = 0-23.50). Zeros that reflected never engaging in a certain type of conflict were included.

### **Analytic Approach**

For all analyses, the means, standard deviations and intercorrelations among the main variables were examined. There were no differences between the TDV scores of those who completed via web vs. the in-person interviews. Structural equations modeling (SEM) was used to test the etiological pathways from parental psychopathology in infancy (i.e., paternal alcohol problems, parental depression, antisocial behavior) to TDV involvement in late adolescence. All SEM analyses were conducted using Mplus (Version 7.11; Muthen & Muthen, 1998–2012). Standardized parameter estimates using FIML are presented. For the second study, regression analyses were used to examine the role of maternal acceptance as a moderator between exposure to marital conflict and TDV involvement.

**Pathways from parental psychopathology in infancy to TDV.** To examine the etiological pathways from parental psychopathology and marital conflict in infancy to TDV involvement in late adolescence, we tested the conceptual model presented in Figure 2. The predictive variables included in the model were selected based on prior research and developmental theory. We also had initially hypothesized that parental psychopathology in infancy would be predictive of early adolescent substance use, which in turn would be a predictor of TDV. However, our preliminary analysis revealed that rates of 8<sup>th</sup> grade alcohol use were very low and not associated at the bivariate level with TDV. Given the small sample size and the large number of variables to be included in the model, we opted not to include substance use to preserve power.

The model included dummy-coded variables for group status (father alcoholic vs. not), paternal antisociality, maternal depressive symptoms and marital conflict at 12 months as exogenous variables and child gender as a covariate. Maternal antisociality and paternal depressive symptoms were not related to any of the outcomes and were not included in the final

model. Causal paths from family risk factors in infancy to maternal warmth and sensitivity at 24 months, from maternal warmth to child self-regulation at 36 months and from self-regulation to aggression in kindergarten and self-regulation in middle childhood were examined. In addition, the model included direct paths from family risk characteristics at 12 months to child aggression in early childhood and lagged paths estimating stability of child aggression and marital conflict from early childhood to adolescence. Finally, early adolescent aggression, peer conflict, sibling aggression and marital conflict were estimated as having causal associations with TDV in later adolescence. An examination of the modification indices (MI) indicated the addition of two pathways that would substantially improve the fit of the model (MIs > 10) and that were theoretically appropriate to include: a path from father antisocial behavior to sibling problems, and a path from child gender to aggression in early adolescence. The final model is presented in Figure 3. For ease of presentation, only the significant pathways are depicted

#### **Maternal acceptance as moderator between exposure to marital conflict and TDV.**

Descriptive analyses and correlations comparing the alcohol groups on early adolescent marital conflict and maternal acceptance and late adolescent TDV involvement are presented in Tables 4 and 5. Maternal acceptance and exposure to marital conflict were assessed in 8<sup>th</sup> grade using the Acceptance subscale of the Child Report of Parenting Behaviors Inventory (CRP BI; Margolies & Weintraub, 1977) and the Exposure to Marital Disagreements measure (Jouriles et al., 1991). Regression analyses were run to examine the associations of alcohol group status, gender, maternal acceptance, and exposure to marital disagreements, with TDV. First, the main effects of these variables on TDV were examined. In a second model, the product interaction of maternal acceptance and exposure to marital disagreements was added (see Table 6).

#### **Key Findings**

**Pathways from parental psychopathology in infancy to TDV.** The final SEM model fit the data well,  $\chi^2(86) = 93.7$ , *ns*; *RMSEA* = .021 [.000-.052]; *CFI* = .983; *TFI* = .975 (see Figure 3). Indices of parental psychopathology in infancy were associated with each other (see Table

3). There were two pathways to TDV in the hypothesized model with repeated measurement over time, a child aggression pathway and a marital conflict pathway. Structural paths indicated that parental psychopathology in infancy was associated directly with child aggression, with moderate to high stability in child aggressive behavior from early childhood to adolescence and early adolescent aggressive behavior predicting TDV in later adolescence. Marital conflict was not directly associated with TDV, but it was indirectly associated via lowered self-regulation in middle childhood and aggression in early adolescence. In addition to these two pathways, we found support for a pathway via parenting to self-regulation in the preschool years to child aggression. Mothers with alcoholic partners exhibited lower warmth during the toddler years, which in turn was associated with lower child self-regulation in the preschool years. Lower self-regulation in the preschool period was longitudinally associated with kindergarten aggression and a stable pattern of aggression across childhood and into early adolescence. Child aggression in kindergarten and paternal antisocial behavior also were associated with sibling problems in middle childhood, and this uniquely predicted TDV in late adolescence. Contrary to expectations, peer and marital conflict in early adolescence did not directly predict TDV.

#### **Maternal acceptance as moderator between exposure to marital conflict and TDV.**

Regression analysis revealed that there were significant main effects for maternal warmth and exposure to marital conflict predicting TDV involvement, with exposure to marital disagreements associated with higher levels of TDV and maternal acceptance associated with lower levels of TDV ( $R^2 = .11$ ,  $p < .001$ ; see Table 6). The interaction of exposure to marital disagreements and maternal acceptance was significantly associated with TDV, with the combination of low maternal acceptance and high conflict exposure predicting the highest rates of TDV ( $R^2 = .14$ ,  $p < .001$ ; see Figure 4).

#### **Implications**

These findings highlight the importance of family processes in the development of adolescent aggression and TDV and offer several points for intervention. Notably, two

significant protective influences have emerged from this research: positive parenting and self-regulation. In early childhood, maternal warmth and sensitivity contributes to the development of self-regulation, and children who are better able to self-regulate engage in less externalizing and aggressive behavior in childhood and adolescence. Maternal acceptance in early adolescence also reduces TDV involvement among youth exposed to marital conflict. Maternal warmth and sensitivity has previously been identified as a positive influence on child development (e.g., Eiden et al., 2009); the current research extends this research by showing these positive effects can extend into late adolescence.

Ideally, intervention should occur in families characterized by psychopathology when children are very young. Children reared in homes characterized by parental psychopathology, including parental alcoholism, are at increased risk of TDV involvement through the negative effects of psychopathology on aggression and parenting behaviors that contribute to the development of self-regulatory skills needed to control behavior. Family-based interventions designed to help parents cope with substance abuse, mental health and marital conflict may benefit both parents and children. The role of maternal parenting behavior in the context of risk posed by fathers' alcohol problems may be especially critical and high maternal warmth may be protective against child aggression. Interventions designed to promote maternal warmth and sensitivity in the toddler years may be particularly helpful reducing aggression through improving parent-child relations and facilitating the development of self-regulation. Interventions occurring in middle childhood may also be beneficial. Pediatricians can screen for family violence, including sibling and marital conflict, and help connect families with resources to promote communication and self-regulatory skills.

### **Limitations and Strengths**

As with any study, there are limitations that need to be considered in interpreting the results. First, the sample consisted of predominantly White families. Different developmental pathways or processes may occur in families of other races/ethnicities. Most significantly, the

relatively small sample size prohibited us from testing a fully comprehensive model that included other variables that should be theoretically associated with TDV involvement (e.g., social competency, parent-to-child aggression). In developing the model, we chose the pathways and time points that were most theoretically meaningful from the standpoint of an ecological/transactional model of development. Preliminary analysis determined that some of the theoretically related constructs (e.g., social competency) did not have predictive power within the proposed models, so they were dropped from the final model to conserve power. We were also restricted by sample size in examining if the pathways to TDV varied for boys and girls. These relationships should be explored in larger, more representative samples.

Nonetheless, the study contributes to the current literature on TDV by highlighting the importance of parenting in early childhood and its implications for the development of aggression and self-regulation across childhood and into adolescence. Other strengths of the study include a good retention rate, measurement of family functioning and the use of multiple methods and measures including laboratory assessments, as well as observational, parent report and adolescent report data collected at key transition points in development (toddler to preschool years, entry into school, shift from middle to high school).

The criminal justice system can play an important role in assisting distressed families access resources to improve child outcomes and reduce risk of future involvement in substance use and TDV. For example, individuals who are in family court for domestic violence and/or substance abuse related issues may be mandated to complete parent-training courses. Intervening with families-at-risk can protect children by reducing child maltreatment and/or mitigating the outcomes that may place them on a trajectory to involvement in TDV. Intervening with youth holds great potential for prevention since youth are more amenable to change and there is the potential to stop aggressive behavior before it becomes severe or is carried into adult relationships. Ultimately, improving family processes in early childhood may help prevent TDV and in so doing, reduce costs to public health and the criminal justice systems.

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Table 1.

*Prevalence Rates of TDV Perpetration and Victimization by Abuse Subscales*

Type of Aggression	Perpetration		Victimization	
	N	%	N	%
Physical	7	4.8	11	7.5
Threatening	5	3.4	9	6.2
Sexual	11	7.5	12	8.2
Relational	3	2.1	7	4.8
Emotional	83	58.5	87	60.8
Total	84	58.3	90	62.5

Table 2

*Means and Standard Deviations for Etiological Model Study Variables by 12 Month Alcohol Group*

Variable	Control Group	Father Alcoholic Group	Significance Test
<b><i>Infancy (12 months)</i></b>			
Maternal Depression	7.11 (6.18)	9.67 (8.03)	t = 2.66**
Paternal Depression	6.41 (6.26)	8.79 (7.46)	t = 2.54*
Maternal Anti-Social Behavior	34.28 (4.44)	37.46 (5.95)	t = 4.43***
Paternal Anti-Social Behavior	36.13 (6.35)	43.04 (9.68)	t = 6.32***
Marital Conflict	-.23 ( .79)	.25 ( .93)	t = 3.13**
<b><i>Pre-School (24-36 months)</i></b>			
Maternal Warmth (24 months)	4.70 ( .44)	4.38 ( .53)	t = 4.87***
Child CBCL Aggression	6.83 (4.00)	9.60 (5.56)	t = 3.28**
Child Internalization (36 months)	4.15 ( .85)	4.08 ( .99)	t = .42
<b><i>Early Childhood (Kindergarten)</i></b>			
Child CBCL Aggression	5.92 (4.02)	7.99 (5.50)	t = 2.39*
Marital Conflict	-.08 ( .85)	.24 ( .89)	t = 1.99*
<b><i>Middle Childhood (4<sup>th</sup>-6<sup>th</sup> grade)</i></b>			
Child CBCL Aggression	29.82 (12.31)	35.32 (15.76)	t = 2.06*
Self-regulation (4 <sup>th</sup> grade)	53.00 (9.38)	52.64 (6.71)	t = .23
Child Sibling Problems	7.98 (2.63)	8.62 (2.76)	t = 1.22
<b><i>Early Adolescence (8<sup>th</sup> grade)</i></b>			
Child YSR CBCL Aggression	7.02 (4.83)	8.85 (5.02)	t = 1.96
Peer Conflict	2.15 (2.04)	2.43 (2.03)	t = .73
Marital Conflict	-.12 ( .73)	.18 ( .94)	t = 1.87 <sup>t</sup>
<b><i>Late Adolescence (8<sup>th</sup> grade)</i></b>			
Teen Dating Violence	3.71 (4.96)	3.90 (4.57)	t = .24

<sup>t</sup> p < .10, \* p < .05, \*\* p < .01, \*\*\* p < .001

Table 3  
*Correlations of Etiological Model Study Variables with Teen Dating Violence during Late Adolescence*

<i>Variables</i>	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. M Depression Infancy	----													
2. F ASB Infancy	.21**	----												
3. Marital Conflict Infancy	.31**	.32**	----											
4. M Warmth EC	-0.08	-0.11	-0.04	----										
5. Aggression EC	.27**	-.30**	.28**	-0.17	----									
6. Internalization of rules EC	-0.03	0.01	-0.12	.28**	-0.17	----								
7. Aggression K	0.17	.30**	.25**	-.19*	.63**	-.28**	----							
8. Marital Conflict K	.29**	.10	.51**	-.25**	0.12	-0.11	.27**	----						
9. Aggression MC	.25**	.19*	.34**	0.02	.52**	-0.12	.52**	0.07	----					
10. Effortful Control MC	-0.07	0.07	-0.11	0.12	0.06	0.07	0.05	-.28**	0.14	----				
11. Sibling Problems MC	.21*	.34**	.30**	-0.06	.20*	-0.09	.23*	0.19	.34**	0.02	----			
12. Aggression EA	-0.03	.22*	-0.01	-0.10	.20*	-0.13	.23*	0.12	.38**	-0.14	0.18	----		
13. Peer Conflict EA	-0.13	0.03	-0.07	-.19*	0.05	-0.11	0.04	0.01	0.02	-0.02	0.04	.31**	----	
14. Marital Conflict EA	0.18	0.07	.45**	-.19*	0.01	0.01	0.04	.41**	.21*	-0.07	0.15	0.17	0.17	----
15. TDV	0.13	0.17	0.051	-0.48	0.08	-0.04	0.13	0.14	0.08	-0.11	0.39*	0.37*	0.19*	0.12

Note: M= Mother; F=Father; ALC= alcohol group status; ASB = Antisocial behavior; EC = Early Childhood; K=Kindergarten; MC = Middle childhood; EA = Early Adolescence.

Table 4

*Means and Standard Deviations for Early Adolescent Variables and TDV by 12 Month Alcohol Group*

Variable	Control Group	Father Alcoholic Group	Significance Test
Maternal Acceptance	6.52 (6.91)	8.57 (7.21)	t = 1.77 <sup>t</sup>
Exposure to Marital Conflict	1.69 ( .36)	1.62 ( .36)	t = 1.20
Involvement in TDV	12.83 (12.12)	14.10 (10.87)	t = .64

<sup>t</sup>p < .10, \* p < .05, \*\* p < .01, \*\*\* p < .001

Table 5

*Correlations Between Early Adolescent Variables and Late Adolescent TDV*

Variable	1	2	3	4
1. Father Alcoholism	---			
2. Maternal Acceptance	-.09	---		
3. Exposure to Marital Conflict	.17*	-.20*	---	
4. Involvement in TDV	.02	-.26*	.29**	---

† $p < .10$ , \* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$

Table 6

*Regression of Involvement in TDV on Exposure to Marital Conflict and Maternal Acceptance*

<i>Variables</i>	Model 1		Model 2	
	b (SE)	Beta	b (SE)	Beta
Intercept	10.05 (3.47)		10.16 (3.52)	
Alcohol Group Status <sup>a</sup>	.61 (2.11)	.03	.73 (2.07)	.03
Gender <sup>b</sup>	2.00 (2.11)	.09	1.53 (2.09)	.07
Exposure to Marital Conflict	2.75 (1.17)	.23*	2.71 (1.15)	.22*
Maternal Acceptance	-2.32 (1.04)	-.21*	-1.28 (1.14)	-.12
Exposure to Marital Conflict X Maternal Acceptance			-2.11 (1.00)	-.21*
Adjusted $R^2$	.11***		.14***	
Delta $R^2$			.03*	

\* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$

<sup>a</sup>Reference group = non-alcoholic fathers

<sup>b</sup>Reference group = male

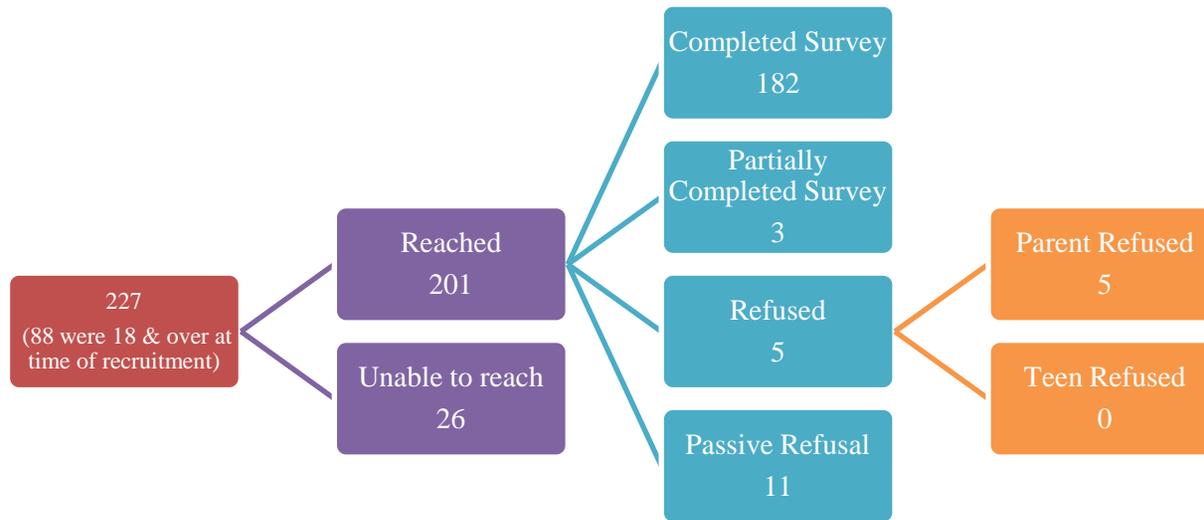


Figure 1. Retention of Original Sample for 12<sup>th</sup> Grade Assessment

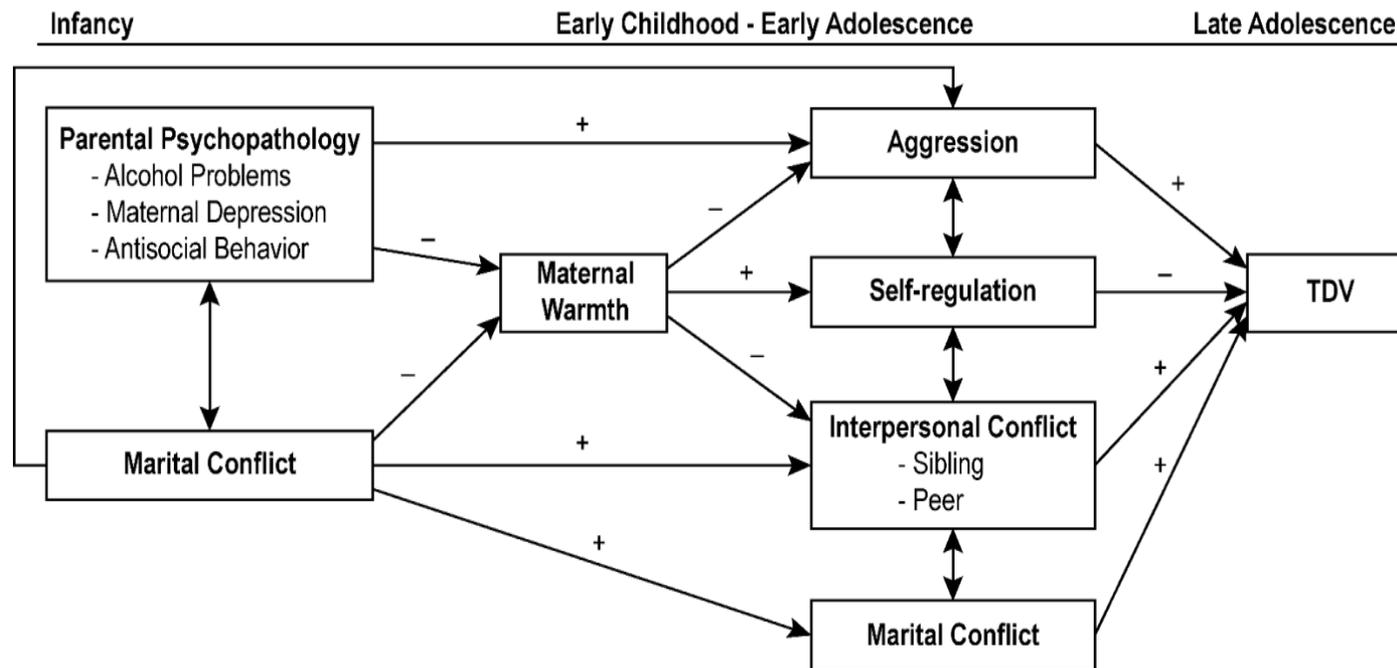
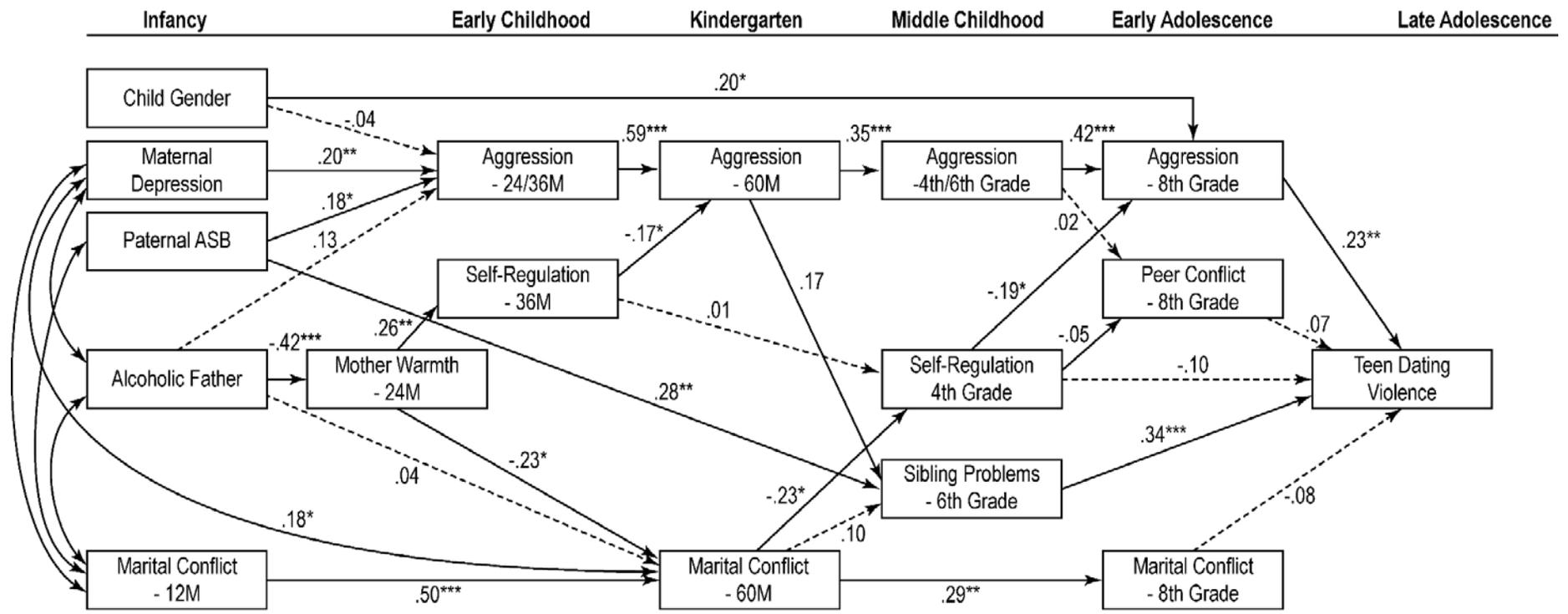


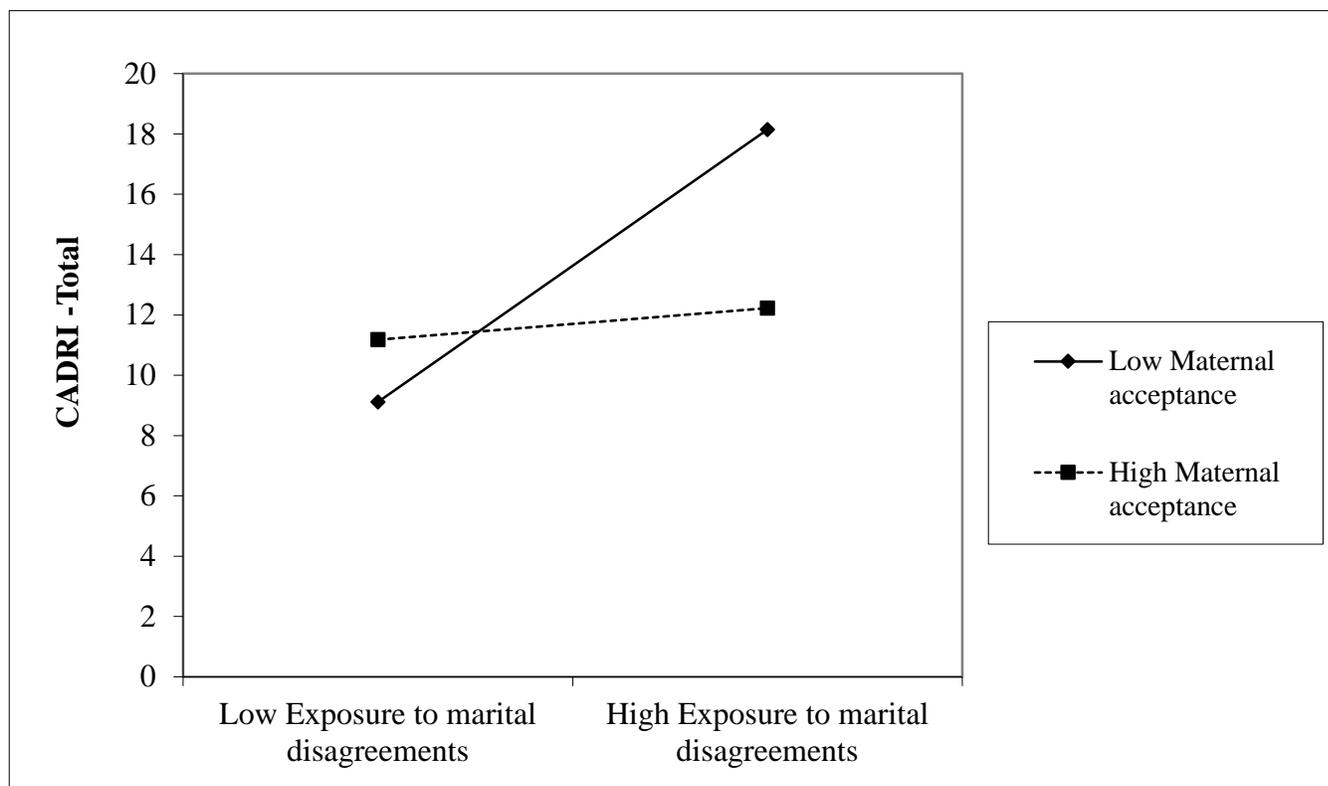
Figure 2. Conceptual Model Predicting Teen Dating Violence in Late Adolescence from Parent Risk Factors in Early Childhood.

Final Model of Parental Psychopathology Predicting TDV



$\chi^2(86) = 93.7, ns; RMSEA = .021 [.000-.052]; CFI=.983; TFI=.975$

Figure 3. Final Model of Parental Psychopathology Predicting TDV. Note: Paternal depression and maternal antisocial behavior were examined as predictors did not predict any of the outcomes and were not included in the model. ASB- Antisocial Behavior



*Figure 4.* Interaction between 8<sup>th</sup> Grade Maternal Acceptance and Exposure to Marital Conflict and TDV Involvement in Late Adolescence.