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## Exposure to Parental Conflict and Anxiety in Justice-Involved Youth

Logan B. Ewing  
*University of Central Florida*



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EXPOSURE TO PARENTAL CONFLICT AND  
ANXIETY IN JUSTICE-INVOLVED YOUTH

by

LOGAN BREANNA EWING

A thesis submitted in partial fulfillment of the requirements  
For the Honors in the Major Program in Criminal Justice  
in the College of Community Innovation and Education  
and in the Burnett Honors College  
at the University of Central Florida  
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## ABSTRACT

The purpose of this study was to explore the link between exposure to domestic violence (DV) and the presence of symptoms of anxiety in a population of justice-involved juveniles. The categories of DV were broken down into verbal abuse and physical abuse, along with a third category of juveniles that witnessed both forms of abuse within their households. This study compared the prevalence of anxiety in juveniles when faced with the different instances of DV through the use of data collected from a longitudinal study conducted by the Pathways to Desistance Project. The goal of the study was to further understand how the witnessing of specific forms of DV may result in a higher rate of symptoms of anxiety displayed within juveniles. This study will allow for professionals to better identify sources of anxiety and trends found in juvenile offenders exhibiting such internalized behavior, which may have been as a result of witnessing DV in their pasts. This study may lead to better handling and identification of anxiety disorders and symptoms in children and act as a red flag for potential domestic abuse in the child's household. This study may also allow for a higher likelihood of assistance given to children at a young age in order to prevent the development of behaviors they witness within the household and may reflect in the future.

## DEDICATION

For those struggling to stay afloat in the face of domestic violence.

To my family, for their love and support.

## ACKNOWLEDGEMENT

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## INTRODUCTION

Domestic violence (DV) has many labels, such as: intimate partner violence (IPV), domestic abuse, and relationship abuse. DV is defined as a pattern of behaviors that one partner may utilize to maintain power and/or control of another person(s) within an intimate relationship or within a familial relationship (National Domestic Violence Hotline, 2020). Surrounding this topic, there is a heavy focus on the negative impact that DV has on the victim, and for good reason. At least half a million women annually find themselves victims of IPV within the United States (Roberts, Gilman, Fitzmaurice, Decker, & Koenen, 2010). With the average household in the United States hosting 1.93 children, that allows an estimation of about 965,000 children witnessing some form of DV annually within their households (United States Census Bureau, 2019). While the effect of witnessing DV in childhood has been widely researched (e.g., Emery, 2011; Graham-Bermann, & Perkins, 2010; Kitzmann, Gaylord, Holt, Kenny, 2003; McFarlane, Groff, O'Brien, & Watson, 2003; Meltzer, Doos, Vostanis, Ford, & Goodman, 2009; Naughton, O'Donnell, & Muldoon, 2020; Osofsky, 1995; Roberts, 2010; Stiles, 2002), it remains unclear exactly how it affects development due to the diversity and complexity of responses that a child may present when faced with such violence. Given the number of children exposed to DV, it is important to understand its impact on a child's psychological well-being. A better understanding of the effect that witnessing DV at a young age has important practical implications. More specifically, this research will help to further understand how to handle treatment pertaining to children that witnessed DV at a young age and the potential risk factors to look for. This may also provide critical information when delving into justice-involved youth and the intricacies that psychological well-being entails. Of those that have witnessed DV in their youth, the manner in which they internalize or externalize their behavioral response may

play a role in how they become involved within the justice system at a young age or into adulthood.

To look at DV as a source of disturbance in a child's development, one must consider the variation of DV that a juvenile has been exposed to. Youth may witness DV interactions between various sources, including: IPV, parental-to-sibling abuse, or extrafamilial (i.e., mother's boyfriend, grandfather's ex-wife, etc.) violence towards siblings and/or parental figures. This also relates to the specific forms of DV witnessed, including that of physical abuse (e.g., a parent slapping their partner across the face) and verbal abuse (e.g., a parent gaslighting their partner) within the household. One negative impact of DV on youth is anxiety (Stiles, 2002). It is possible that by witnessing physical DV, verbal DV, or both, there have been differential effects on the development of anxiety symptoms, but there is limited literature in how those sources of DV differ in the development of anxiety (Naughton et al., 2020). Additionally, exposure to DV is disproportionately prevalent among justice-involved youth and can have detrimental effects for such youth given their unique situation (Dierkhising et al., 2013). Thus, it is important for research to further examine the relationship between different forms of DV and anxiety among a sample of justice-involved youth. That is, does witnessing either verbal, physical, or both forms of DV have an effect on the likelihood of an individual developing anxiety or anxiety-like behaviors?

In this study, I attempt to answer this question by examining the effects of witnessing physical and verbal forms of DV as a child and how that may impact their proclivity towards developing symptoms of anxiety among a sample of justice-involved youth. In order to do this, I first identify different "groups" of youth based on the type of DV to which they were exposed. I then examine differences in symptoms of anxiety across the different exposure groups identified.

In turn, this study has the potential to provide a better understanding of the influences of DV within a household and the resulting anxiety-based behaviors exhibited by a child that witnessed such interactions. The findings from this study will also result in a further understanding on appropriate approaches to such events and better understanding of how children process different types of violence and their resulting outlet.

## LITERATURE REVIEW

### Types of DV

Domestic violence, as mentioned prior, can be viewed in various forms depending on the actions of the perpetrator towards the victim. As a result, there are four different classifications of DV that need to be taken into consideration: verbal, physical, sexual, and economic (Kelly & Johnson, 2008). Emotional abuse is associated with verbal abuse and intimidation, with a focus on the exploitation of a victim's insecurities, vulnerabilities, and/or character. Emotional abuse and verbal abuse can be used interchangeably, but for the sake of this study, it will be referred to as "verbal abuse." This can be achieved through the abuser carrying out acts of degradation, manipulation, public humiliation, and gaslighting, as well as a variety of other modes of manipulation to ensure that the victim is thoroughly unable to feel secure in their emotional state or within the relationship as a whole, thereby degrading their position in the relationship (Arizona Coalition to End Sexual & Domestic Violence, 2020).

Physical violence, as the name suggests, is where the victim is abused through direct confrontations and assault. That can mean that the victim is physically assaulted, refused access to vital items (food, water, etc.) that can lead to a disruption in the victim's health, or general threats of physical harm towards the victim with the intent to carry them out. Both verbal abuse and physical abuse can work hand-in-hand, where the perpetrator could begin with verbal abuse that leads into physical abuse, and potentially vice versa. However, a distinction between the two rests in the actions of the perpetrator. Physical abuse will result in physical action taken against the victim, while verbal abuse will result in the use of words and/or forms of humiliation to achieve what the perpetrator wants from the relationship. Verbal abuse may result in more negative long-term consequences than that of physical abuse, as evidence has shown verbal

abuse resulting in higher chances of depression, anxiety, stress, and neuroticism personality compared to those who were victims of physical abuse alone (Dye, 2019).

Sexual abuse falls into a category between verbal and physical abuse. It can be tied to either form of coercion but is categorized as an abuser's use of sex as a way of engaging in the exploitation of the victim or the act of forcing sex onto a victim without consent. An important aspect of sexual abuse, as it pertains to relationships, is that having previously given consent before does not equate to consent throughout the entirety of the relationship. Forms of sexual abuse can include nonconsensual sexual contact of the victim (i.e., penetration or touching), the abuser having affairs/forcing the victim into sexual situations with others, exploitation of the victim when the victim is unable to make informed decisions (e.g., substance use, victim's age, victim's disabilities, etc.), or making offensive statements towards the victim's body and/or sexuality (Arizona Coalition to End Sexual & Domestic Violence, 2020).

Economic abuse is considered to be an "invisible" form of abuse in the realm of DV as it manifests differently than the other three groups. Essentially, the goal of the perpetrator of economic abuse is to create a situation where the victim is financially dependent on the abuser and, thereby, socially isolated as a result. This includes the abuser making it difficult or impossible to access savings and assets, the abuser causing insecurity in housing, or the abuser interfering with social interactions, access to work/jobs, and/or disrupting or not allowing the victim to pursue education (Postmus et al., 2018). However, for the sake of the study, the focus will be on the witnessing of verbal abuse and/or physical abuse.

#### The Prevalence and Consequences of DV

The issue of DV impacts a considerable number of adults, with an average of more than

10 million adults experiencing DV annually (National Coalition Against Domestic Violence, 2020). As a result, one in four women and one in nine men will, at some point in their lives, experience DV (Huecker & Smock, 2020). Domestic violence, however, is considered to be a form of violence that is severely underreported and estimates of DV based on official statistics may only be the “tip of the iceberg” and result in gross underestimations of the actual number of cases involving DV. The “tip of the iceberg” is truly showcased by 25 percent of women potentially facing DV in their lifetimes, but only 2.5 percent to 15 percent of those affected by DV will actually report such instances of abuse (Gracia, 2004). However, the information on the number of children or adolescents that have witnessed DV within the United States has a much wider range. It has been estimated that 3.3 million to 10 million children between the ages of 3 to 17 years old were exposed to adult DV annually (Stephens, 1999). This creates a gap in data that is only furthered by the prevalence of the “tip of the iceberg” analogy in reference to what is not reported by adult victims of DV.

The witnessing of DV can be detrimental to childhood development and behavior, as it can create adverse consequences that can affect an individual for a lifetime. A study conducted by Kitzmann et al. (2003) highlighted that the witnessing of interparental violence at a young age may have more of an impact on the child’s behavioral output than any other forms of destructive conflict. The effects of witnessing DV, especially regarding interparental aggression, can cause significant disruptions within a child’s life and, as a result, greatly affect their psychosocial functioning in both short-term and long-term scenarios. The outcomes of witnessing violence at a young age can be split into internalizing disorders (such as with anxiety or PTSD), externalizing disorders (such as with behavioral issues or aggression), and other forms of psychological problems (Meltzer et al., 2009). Research has shown that those who witness DV

and IPV at a young age have a higher chance of displaying some form of a negative psychosocial outcome. For instance, in one study, researchers reported that 52 percent to 62 percent of a group of 79 children (aged 6 to 12 years old) that witnessed DV in their households showed borderline to severe levels of behavior problems. Within the same study, only 15 percent of the same sample of children showcased moderately high to high levels of anxiety (Mathias, Mertin, & Murray, 1995). A study conducted on school children that witnessed IPV had a similar response in the number of students that were within the clinical range for internalizing and externalizing behavioral problems, with approximately 40 percent to 60 percent of school-aged children displaying signs of anxiety, depression, and aggression to the point of potentially requiring intervention in the future (Graham-Bermann & Perkins, 2010). While the reasons for the development of anxiety can vary, it has been observed that children who have grown up in a household with DV are more likely to experience symptoms of anxiety than children that have not witnessed DV.

#### Children and Diagnosable Anxiety Disorders

Before addressing the link between DV and anxiety disorders, it is important to discuss the symptoms and manifestations of anxiety. The term “anxiety disorders” acts as an umbrella term for a variety of internalized mental disorders. Those mental disorders share the features of excessive fear, anxiety, and behavioral disturbances in relation to those feelings. According to the DSM-5 (2013), disorders that belong in the umbrella of anxiety disorders are as follows: separation anxiety disorder, selective mutism, specified phobias/avoidant personalities, social anxiety disorder (social phobia), panic disorder, agoraphobia, generalized anxiety disorder (GAD), and substance/medication-induced anxiety disorder. As children grow and age, they are faced with a variety of life experiences. Those experiences can help shape who they become and

how they behave, among other things. As a result, childhood is a critical period of development in the psychosocial sense (Macksoud & Aber, 1996). In a Centers for Disease Control and Prevention study conducted between 2014 and 2018, it was found that one in six school-aged students had enough symptoms/impairments to be diagnosed with a childhood mental disorder. From that same study, it was found that anxiety disorders were the most commonly reported of the childhood mental disorders diagnosed, closely followed by oppositional defiant disorder (ODD) and attention-deficit/hyperactivity disorder (ADHD) (Danielson et al., 2020).

However, children that are not exposed to violence may also exhibit these behaviors as a result of worries and fears that are common in the cognitive experiences of children (Rutter & Rutter, 1993). Younger children may find themselves fearing that they may get hurt, that they may be separated from caregivers, or that they have unrealistic fears (e.g., demons or monsters) (Bretherton, 1992). Meanwhile, older children and adolescents' sources of worry stem from their self-image, social acceptance, and other stressors tied into family, friends, and academics (Nicastro & Whetsell, 1999). Anxiety disorders, as a result, are believed to be caused by a combination of biological and environmental factors. This means that it may not be solely due to genetics or environmental situations that a child develops a form of anxiety disorder, but it may be an amalgamation of factors that can lead to the onset of such disorders (Anxiety Disorders Association of America, 2020).

#### Exposure to DV and Anxiety

It is possible that exposure to DV can lead to anxiety disorders and/or symptoms of anxiety. From a theoretical standpoint, both the general strain theory (GST) and the theory of psychosocial development may play a part in the development of anxiety due to the exposure to DV in general populations, but also within justice-involved youth. GST is generally used in

reference to the likelihood that an individual will engage in some form of deviance in response to potential stressors, including parental rejection, criminal victimization, discrimination, and/or desperation (Agnew, 2014). Specifically, GST suggests that individuals who experience strain will experience some form of negative emotion (e.g., depression, anxiety, paranoia, etc.) and, in turn, are more likely to engage in antisocial behaviors as a way to cope with this negative emotional state (Agnew, 2014). Agnew (2001) identifies three major sources of strain: exposure to negative stimuli, removal of positively valued stimuli, and failure to achieve positively valued goals. Exposure to DV would most closely fall into the category of exposure to negative stimuli, as described by Agnew. Additionally, exposure to DV is subjective in the sense that two individuals that are exposed to DV may behave with different emotional responses. This can be applied to DV exposure (the negative stimuli) and the development of anxiety (the emotional response to the stimuli). That is, as a result of exposure to DV, a youth may or may not experience anxiety. GST focuses exclusively on the negative relationships that an individual may have with others. In reference to this study, GST will be showcased through childhood witnessing of DV within the household that may, in turn, act as a stressor on the individual's life and the resulting actions that the individual may take in response to the stressor (Agnew, 2006). This may result in both externalized and/or internalized behaviors, such as displaying signs of anxiety-related behaviors and/or disorders as a potential result of those stressors.

The psychosocial theory of development is rooted in a similar concept, but on a broader scale. The theory follows the concept that biological, psychological, and social factors throughout one's lifetime play a major role in an individual's development from a young age through a variety of life stages. There are eight stages overall, but the stages to focus on for the study are stages 1-5. These stages are as follows: Stage 1—Infancy period (trust vs. mistrust);

Stage 2—Early Childhood period (autonomy vs. shame, doubt); Stage 3—Play Age period (initiative vs. guilt); Stage 4—School Age period (industry vs. inferiority); and Stage 5—Adolescence period (identity vs. identity confusion). These stages play a critical role due to the malleability of youth and how negative experiences in one’s life, such as with the witnessing of DV, can create a negative response in a child’s behavior during specific portions of development (Orenstein & Lewis, 2020). This can lead to the development of anxiety problems and different responses associated with anxiety as a result of witnessing DV at different points within one’s childhood.

Exposure to DV and its effect on developmental patterns is a topic of research that is still actively pursued. The way children display and handle witnessing such violence can vary from child-to-child, but there is a common pattern: children who have witnessed parental abuse tend to exhibit significantly more internalizing and externalizing behaviors than children without that experience. McFarlane et al. (2003) examined the differences in how children’s behavior was shaped between children of abused mothers and children of unabused mothers. Based on the information derived from multivariate analyses tests that were conducted on the sample population, it was found that there was a significant difference between groups for internalizing behavior. Regarding the conclusions drawn from the study, children of abused mothers were found to be more likely to exhibit internalizing, externalizing, and total behavior problems when compared to children of unabused mothers. Internalizing behavior, as defined in the study, was behavior that included anxiety, depression, withdrawal, and somatic complaints amongst clinically referred and non-referred samples of children.

With the broad forms of research covering the topic of anxiety disorders in children exposed to DV, there is a gap of information regarding what form of DV results in a higher rate

of anxiety disorders and symptoms displayed in children and, potentially, continuing into adulthood. There is a larger grouping of studies, as mentioned prior, that do have the tendency to lean towards physical abuse as a source of DV rather than addressing verbal abuse as a potential source, as it is an easier identifier of DV for children in younger age groups. The narrowing of this gap may be critical in understanding the source of anxiety disorders and symptoms in such a grouping of children, which may allow for further understanding of what children may be dealing with at home and what steps could be taken to assist children in those situations. This may also lead to a better understanding of the trends exhibited by juvenile offenders. They have been shown to adopt similar tactics of abuse that they have witnessed in their childhood and utilize those tactics against others.

## CURRENT STUDY AND HYPOTHESIS

The current study furthers existing research on the effects of DV exposure during an individual's childhood. More specifically, this study examines if two different forms of DV (physical and verbal) result in symptoms of anxiety among a sample of justice-involved youth. Verbal and physical abuse will be the focal point when discussing the effects of witnessing DV for adolescents and their resulting anxiety. Due to the complexity of DV, the focus will be strictly on childhood witnessing of either physical abuse, verbal abuse, or both within the child's household. Based on previous research, it is known that the witnessing of DV acts as a source for later internalized and externalized behaviors displayed in youth that may have otherwise not been developed (Mathias, Mertin, & Murray, 1999; Graham-Bermann & Perkins, 2010). Diagnosable anxiety disorders can stem from these behavioral outlets displayed in youth as a result, but the lack of work focused primarily on anxiety symptoms as an outcome of DV is somewhat limited (Mathias, Mertin, & Murray, 1999). In addition, despite the extensive research on the negative impact of DV on youth outcomes (e.g., Emery, 2011; Osofsky, 1995; Graham-Bermann & Perkins, 2010; Kitzmann et al., 2003), research has yet to distinguish the effects of exposure to verbal abuse, physical abuse, or both on anxiety. In order to address the gap in research, the proposed hypotheses will focus on the differentiation between witnessing physical abuse, verbal altercations, the combination of both or the lack of either and how that may lead to an increased chance of anxiety symptoms as a result.

H0: There will be no differences in anxiety symptoms between youth who have been exposed to verbal altercations, both forms of conflict, and no conflict at all.

H1: There will be differences in anxiety symptoms between youth who have been exposed to verbal altercations, both forms of conflict, and no conflict at all. There will be a higher chance of

anxiety symptoms within participants who have witnessed both forms of parental conflict in their household compared to those who have witnessed only one form or none.

## METHODOLOGY

### Study Design

The data for this study will be drawn from baseline interviews in a longitudinal study known as the Pathways to Desistance Project, that of which was hosted by the MacArthur Foundation Research Network on Adolescent Development and Juvenile Justice. The original panel study covered a period of seven years, and the initial phase of collecting the baseline data took place between November 2000 and March 2003. The current study only uses the baseline interview to assess the relationship between prior exposure to DV and the display of current anxiety symptoms. The participants were provided with a questionnaire that was presented on a laptop computer. Trained staff administered the computer-based interview in person and aided participants to ensure valid and reliable responses (Schubert et al., 2004).

### Sample Description

The sample is made up of 1,354 adjudicated juveniles that range between the ages of 14 and 17 years old at the time of committing the offense. The participants in the study were pulled from the juvenile and adult court systems within the cities of Philadelphia, Pennsylvania (N = 700) and Phoenix, Arizona (N = 654). In order to be considered eligible for study participation, the participants had to have committed serious offenses and have charges relevant to the research. All adjudicated adolescents charged with felony offenses, less serious property offenses, misdemeanor weapons offenses, and misdemeanor sexual assault were accepted into the study if the participants were willing to continue with the study beyond the initial presentation. However, due to the higher rate of boys committing drug-related offenses, the study had to limit the proportion of male juveniles with such offenses to 15% of the sample within each site to avoid overinclusion of drug-related offenses. This decision created a broader

representation of other crimes and avoided filling the sample population with drug-related offenses and male perpetrators. In order to amass female participants, the study allowed for all female juveniles that met both the age and adjudicated crime requirements (even that of drug offenses) to be offered the chance to participate if inclined.

## Measures

### Dependent Variables

The primary dependent variable that will be measured in the study is the result of anxiety or anxiety-related symptoms that the participants reported when going through the questionnaires.

*Anxiety.* Anxiety was measured using the *Revised Children's Manifest Anxiety Scale (RCMAS)*.

The RCMAS: Total Anxiety Score is a self-report, 37-item questionnaire, with the questions presented in a "yes/no" fashion. The goal of the scale is to address both the level and the nature of the anxiety symptoms present at the time of baseline data collection. The scale looks for levels of Total Anxiety (which is made up of 28 items) and is split into four anxiety subscales: 1) physiological anxiety; 2) worry/oversensitivity; 3) social concerns/concentration; and 4) lie.

Physiological anxiety includes 10 items within the questionnaire that focus on the somatic manifestations of anxiety, which are shown through qualities such as sleep difficulties, nausea, and fatigue. Worry and oversensitivity include 11 items that target obsessive concerns that can cover a variety of different, and sometimes vague, concepts. These items also target fears that are typically either the fear of being hurt or the fear of being emotionally isolated. Social concerns and concentration include 7 items that focus on distracting thoughts and fears that can be social or interpersonal in nature. The remaining 9 questions make up the lie subscale, which essentially targets the participants that are "faking good" when answering. Considering the RCMAS utilizes

affirmative responses, higher scores are indicative of increased symptoms of anxiety (Lowe, 2015). For the sake of the study, all subscales will be utilized as a collective. Therefore, the main focus of the study will be to address the RCMAS: Total Anxiety Score as a whole rather than each individual subset of the scale.

#### Independent Variable

The independent variable that will be examined within the study includes the type of DV that the participant witnessed within their household and the relationship held with the participant's maternal figure. This will include the witnessing of verbal abuse, physical abuse, or both forms of abuse within the household.

*Witnessing DV.* DV was measured using two questions taken from the Characteristics of Family section of the questionnaire. One question asks youth about witnessing verbal conflict (i.e., *Did your parents have arguments?*). Youth responded either No (0) or Yes (1) to this question. The other question asked youth about witnessing physical DV (i.e., *Did your parents have physical fights?*). This is not solely for biological parents, as any parental figures and/or individuals responsible in raising the participant will be considered when administering the questionnaire. These two questions will be used to create a single variable that categorizes youth into four groups based on whether or not they witnessed parental conflict and the type of conflict they witnessed.

Thus, based on their responses to these two questions, youth who responded "No" to both questions will be categorized as "No Exposure", youth who respond "Yes" to verbal and "No" to physical will be categorized as "Verbal Only", and those who respond "No" to verbal and "Yes" to physical and will be categorized as "Physical", as well as those who responded "Yes" to both verbal and physical.

## Covariates

*Maternal Warmth and Hostility.* Maternal warmth and maternal hostility were measured using an adaptation of the Quality of Parental Relationships Inventory (Conger et al., 1994). This measure was used to assess the affective tone of the parental-adolescent relationship held by the participant. The main focus of the measure was to gather information on the mother's behavior towards the participant through two main sections: warmth and hostility. The reason for this measure is to further understand the participant's relationship with their maternal figure. This addresses a potential limiting factor in the data as a result of possible violence within the household that targets the participant rather than conflict that the participant witnesses. The data does not focus primarily on biological maternal figures, as it includes any female figures within the participant's life that are responsible for raising the participant. The scale is a self-report made up of 21 items. Nine of the 21 items (7 of which must contain valid data) pertain to maternal warmth, while the remaining 12 items (9 of which must contain valid data) pertain to maternal hostility. The items are summed, so that higher scores are indicative of higher levels of maternal warmth and hostility.

*Demographic characteristics.* The current study will also include measures of study site, age, race/ethnicity, gender, and socioeconomic status (SES). Study site is made up either Philadelphia, Pennsylvania or Phoenix, Arizona. Age is taken from the reported age at baseline in years. Race/ethnicity is self-reported and based on six set ethnic groups: White, Black, Asian, Native American, Hispanic, and Other. The set of races/ethnicities were collapsed into four variable groups (White, Black, Hispanic, and Other) due to the low frequency of certain variable groups (Asian, Native American, and Other). These variables are dummy coded for the use of hierarchical regression, with Black, Hispanic, and Other dummy coded. White serves as a

reference category for the test, and therefore is not dummy coded. Gender will represent the biological sex of the participant (male = 0, female = 1). Socioeconomic status, also known as Parent Index of Social Position, will represent the parents' education based on three variables, which includes the education level of the respondent's biological mother, education level of biological father, and the overall SES of the parent(s). The education level uses a four-point scale, with 1 being higher levels of education and 4 reflecting lower levels of education. Occupation is also assessed for SES and uses a seven-point scale ranging from 1 (higher executives, proprietors, major professionals; holding a professional degree) to 7 (unskilled employees; less than seven years of schooling). Those scores, once collected, were then combined using a parental Index of Social Position (IPS) and displayed as follows: the education score was presented as (Education "score" x 4) while the occupation score was presented as (Occupation "score" x 7). The "4" and the "7" within the presented scores represented the respective point scale for the education score and the occupation score. If there happened to be one parent in the household, the score was then computed using the single parent score.

#### Analytic Plan

The first step of the analyses was to conduct descriptive analyses for all study variables. For continuous variables (i.e., anxiety, maternal warmth, maternal hostility, age, and Parent Index of Social Position), means, standard deviations, and minimum and maximum values were reported. For categorical variables (i.e., witnessing DV, sex, ethnicity) percentages were reported. The parental conflict variables were then broken up into three exposure groups: Both, Verbal Only, and No Exposure. Initially, the goal was to have four exposure groups, with "Physical" being the fourth variable. It was shortly realized that the Pathways to Desistance Project data did not provide a large enough pool for the witnessing of physical DV alone, as

“Physical” had a frequency of 6 and made up .4% of the observed parental conflict variables. Therefore, the “Both” and the “Physical” category were combined on the premise of family conflict theory. This theory asserts that the act of physical DV is generally a result of escalating conflicts, which typically includes verbal abuse before reaching a physical level (Whitaker, Haileyesus, Swahn, & Saltzman, 2007). It was decided to group the Physical variable and the Both variable together as a result. Following the use of descriptive statistics, t-tests, correlations, analysis of variance (ANOVA) was conducted to examine the bivariate associations among all study variables. The test selected was dependent on the level of measurement for the independent and variables. For binary-by-continuous associations, a t-test was performed. For continuous-by-continuous associations, Pearson’s correlation was performed. For categorical (more than two values) by continuous variables, an ANOVA was performed. For an explanation of tested variables and to find variance with statistical significant to the dependent variable while accounting for all other variables present, a hierarchical regression was performed.

## RESULTS

Table 1. Descriptive statistics of study variables

Variable	N	<i>M</i> or Percent	<i>SD</i>	Min	Max
Outcome					
RCMAS: Total Anxiety Score	886	10.13	6.12	0	28
Individual-Level					
Study Site (Phoenix)	487	55.0			
Age	886	16.03	1.12	14	19
Race/Ethnicity					
White	208	23.5			
Black	313	35.3			
Hispanic	319	36.0			
Other	46	5.2			
Sex (Male)	765	86.3			
Parent Index of Social Position	883	52.06	11.96	11.00	77
Parenting					
Maternal Warmth		3.18	0.70	1	4
Maternal Hostility		1.62	0.46	1	4
Classes of Exposure					
No Exposure	202	22.8			
Verbal Only	442	49.9			
Both	242	27.3			

*Note.* *M* = Mean. *SD* = Standard deviation. N = Study participants. RCMAS = *Revised Children's Manifest Anxiety Scale*

As shown in Table 1, a majority of participants identified as Hispanic (36.0%) and were male (86.3%). The mean age of the sample was 16.3 years old ( $SD = 1.119$ ), and the participants' ages ranged between 14 years old and 19 years old. The majority of participants were located at the study site in Phoenix, Arizona (55%) and had a mean score on the Parent Index of Social Position of 52.023 ( $SD = 11.95948$ ). Maternal Warmth had a mean of 3.18 ( $SD = 0.7$ ) and Maternal Hostility had a mean of 1.62 ( $SD = 0.46$ ). As for Classes of Exposure, the majority of participants reported having only verbal abuse exposure within their household (49.9%). Given the nature of the sample and high rates of exposure to DV among justice-

involved youth (Finkelhor et al., 2009), it is not too surprising that the majority of youth reported some type of exposure to DV.

Table 2. Pearson correlations of study variables

	1	2	3	4
1. Age	--			
2. Maternal Warmth	-.04	--		
3. Maternal Hostility	.09**	-.39**	--	
4. Parent Index of Social Position	-.07*	.04	.00	--
5. RCMAS: Total Anxiety Score	.04	-.05	.18**	.14**

\*\* p < .01

\* p < .05

As shown in Table 2, the positive correlation between the variables Maternal Hostility and Age was statistically significant at .09 ( $p < .01$ ), suggesting that older youth were more likely to report maternal hostility. Not surprisingly, there was a negative correlation between the variables Maternal Hostility and Maternal Warmth that was statistically significant at -.39 ( $p < .01$ ). There was a significant negative correlation between the variables of Parent Index of Social Position and Age -.07 ( $p < .05$ ). There was a significant positive correlation between the variables RCMAS: Total Anxiety Score and Maternal Hostility at .18 ( $p < .01$ ), suggesting that anxiety is higher for those that experience higher levels of maternal hostility. The positive correlation between the variables RCMAS: Total Anxiety Score and Parent Index of Social Position was statistically significant at .14 ( $p < .01$ ).

Table 3. Mean comparisons for RCMAS: Total Anxiety Score by sex, site, race/ethnicity, and classes of exposure groups

	N	<i>M</i> ( <i>SD</i> )	<i>t</i> ; <i>p</i>	Cohen's <i>d</i> <sup>a</sup>
Site			-3.41; <.00	-.23
Philadelphia	399	9.36 (6.05)		
Phoenix	487	10.76 (6.11)		
Sex			-4.33; <.00	-.42
Male	765	9.78 (5.98)		
Female	121	12.35 (6.56)		
			<i>F</i> ; <i>p</i>	Eta <sup>2</sup>
Race/Ethnicity			10.83; <.00	0.02
White	208	9.72 (6.02)		
Black	313	8.91 (5.58)		
Hispanic	319	11.24 (6.36)		
Other	46	12.61 (6.50)		
Classes of Exposure			13.46; <.00	0.02
No Exposure	202	9.33 (6.18)		
Verbal Only	442	9.56 (5.95)		
Both	242	11.84 (6.06)		

<sup>a</sup> = Cohen's *d* uses the pooled standard deviation.

A one-way ANOVA was conducted to compare the effects of classes of exposure on the RCMAS: Total Anxiety Score, as shown in Table 3. There was a significant difference of effect of classes of exposure on the RCMAS: Total Anxiety Score at the  $p < .05$  level [ $F(2, 883) = 13.46, p < .001, \eta^2 = 0.02$ ]. A Bonferroni post hoc test was then administered to find if there was a significant mean difference between the independent variables that made up the grouping of Classes of Exposure and their mean comparisons for RCMAS: Total Anxiety Score at the 0.05 level. It was found that respondents that reported witnessing the variable Both ( $M = 11.84, SD = 6.06$ ) had a positive mean difference that was statistically significant when compared to those

who reported witnessing either Verbal Only ( $M = 9.56, SD = 5.95$ ) or None ( $M = 9.33, SD = 6.18$ ). There was no significant mean difference when comparing Verbal Only and None.

The following data focuses on the bivariate analysis conducted on the control variables in order to confirm the variables in the multivariate model. In Table 3, an independent-sample t-test was conducted to compare mean score on the RCMAS: Total Anxiety Score between males and females. There was a significant difference between mean scores for male and females on the RCMAS: Total Anxiety Score ( $t = -4.33, p < .001$ ). The independent effect size (.42) was found using Cohen's  $d$  and may represent an effect size just short of what Cohen would consider 'medium' (0.5). In sum, females ( $M = 12.35, SD = 6.56$ ) were significantly higher than males ( $M = 9.78, SD = 5.98$ ) when displaying anxiety as measured by the RCMAS; however, the mean difference was small.

An independent-sample t-test was also conducted to compare mean levels of anxiety between those from the Philadelphia site and those from the Phoenix site. There was a significant mean difference between the RCMAS: Total Anxiety Score between the two sites ( $t = -3.41, p < .00$ ). The independent effect size (.23) was found using Cohen's  $d$  and may represent a small effect. The Phoenix site ( $M = 10.76, SD = 6.11$ ) had a significantly higher mean level of anxiety compared to the Philadelphia site ( $M = 9.78, SD = 6.05$ ), albeit this effect was small.

A one-way ANOVA was conducted to compare the effects of race/ethnicity on the RCMAS: Total Anxiety Score, as shown in Table 3. There was a significant difference of effect of race/ethnicity on the RCMAS: Total Anxiety Score at the  $p < .05$  level [ $F(3, 882) = 10.83, p < .00, \eta^2 = 0.02$ ]. A Bonferroni post hoc test was then administered to find if there was a significant mean difference between the independent variables that made up the Race/Ethnicity variable and their mean comparisons for RCMAS: Total Anxiety Score at the 0.05 level. It was

found that respondents who identified as Hispanic ( $M = 11.24$ ,  $SD = 6.36$ ) had a positive mean difference that was statistically significant when compared to those who identified as either White ( $M = 9.72$ ,  $SD = 6.02$ ) or Black ( $M = 8.91$ ,  $SD = 5.58$ ). It was found that respondents who identified as Other ( $M = 12.61$ ,  $SD = 6.50$ ) had a positive mean difference that was statistically significant when compared to those who identified as either white or black. There was no significant mean difference when comparing those who identified as a white or black.

Table 4. Summary of hierarchical regression analysis for variables predicting RCMAS: Total Anxiety Score

Variable	Model 1				Model 2				Model 3			
	<i>B</i>	<i>SE</i>	$\beta$	<i>Sig.</i>	<i>B</i>	<i>SE</i>	<i>B</i>	<i>Sig.</i>	<i>B</i>	<i>SE</i>	$\beta$	<i>Sig.</i>
Classes of Exposure												
Both					2.05	.57	.15	.00*	1.96	.48	.14	.00*
Verbal Only					.10	.51	.01	.85				
No Exposure									-.10	.51	.01	.85
Study Site	.55	.54	.05	.31	.55	.54	.04	.31	.55	.54	.04	.31
Age	.21	.18	.04	.25	.22	.18	.04	.22	.22	.18	.04	.22
Race/Ethnicity												
White (comparison)												
Black	-.64	.65	-.05	.33	-.78	.65	-.06	.23	-.78	.65	-.06	.23
Hispanic	.93	.58	.07	.11	.85	.57	.07	.14	.85	.57	.07	.14
Other	2.71	.98	.10	.01*	2.46	.97	.09	.01*	2.46	.97	.09	.01*
Sex	2.54	.59	.14	.00*	2.29	.59	.13	.00*	2.29	.59	.13	.00*
Parent Index of Social Position												
Maternal Warmth	.45	.32	.05	.16	.51	.32	.06	.11	.51	.32	.06	.11
Maternal Hostility	2.27	.32	.05	.16	2.03	.48	.15	.00*	2.03	.48	.15	.00*

*Note.* In Model 2, the No Exposure group is the reference category. In Model 3, the Verbal Only group is the reference category.

*B* = Unstandardized beta.

*SE* = Standard error for *B*.

$\beta$  = Standardized beta coefficients.

*Sig.* = Significance probability.

\* =  $p < .01$

Table 4 presents the results of hierarchical regression analyses conducted to predict RCMAS: Total Anxiety Score. For race/ethnicity, each model included Whites as the reference category. Model 1 used the following prediction variables: Study Site, Age, Race/Ethnicity (Black, Hispanic, Other), Sex, Parent Index of Social Position, Maternal Warmth, and Maternal Hostility. Models 2 and 3 included all of the variables listed in Model 1 with the addition of the

Classes of Exposure grouping variable. In order to get all of the contrasts, in Model 2, respondents who were not exposed to DV were the reference group, and in Model 3 the Verbal Only variable was set as the reference group.

With the inclusion of the Classes of Exposure variables Both and Verbal Only, while using the No Exposure variable as a reference group, it was found that Maternal Hostility was significant in predicting higher anxiety scores in participants. As well, the Classes of Exposure variable Both ( $\beta = .15, p < .00$ ) was also found to be significant to predicting higher anxiety scores in participants when compared to those in the No Exposure group while Verbal Only ( $\beta = .01, p < .85$ ) was not significant. In Model 2, a significant regression equation was found [ $F(11, 842) = 10.29, p < .00$ ] with an  $R^2$  of .12. It was found that five control variables significantly predicted RCMAS: Total Anxiety Score in Model 2: Other ( $\beta = .09, p < .01$ ), Sex ( $\beta = .13, p < .00$ ), Parent Index of Social Position ( $\beta = .12, p < .00$ ), Maternal Hostility ( $\beta = .12, p < .00$ ), and Both ( $\beta = .15, p < .00$ ). Once again, the participants that identified their race/ethnicity as Other had higher scores for anxiety in comparison to those who identified as White. The prediction variable Sex was once more significant in the prediction of a higher anxiety score, as was a higher score for the Parent Index of Social Position. Of the two prediction variables, it was found that the Sex variable ( $p < .00$ ) has a more significant impact on anxiety score than the Parent Index of Social Position variable ( $p < .00$ ).

With the inclusion of the Classes of Exposure variables Both and No Exposure, while using the Verbal Only variable as a reference group, it was found that Maternal Hostility was significant in predicting higher anxiety scores in participants. Similar to Model 2, the Classes of Exposure variable Both ( $\beta = .14, p < .00$ ) was found to be significant in predicting higher anxiety scores in participants when compared to those in the Verbal Only group while No Exposure ( $\beta =$

.01,  $p < .85$  ) was not significant. In Model 3, a significant regression equation was found [ $F(11, 842) = 10.29, p < .00$ ] with an  $R^2$  of .12. It was found that five control variables significantly predicted RCMAS: Total Anxiety Score in Model 3: Other ( $\beta = .09, p < .01$ ), Sex ( $\beta = .13, p < .00$ ), Parent Index of Social Position ( $\beta = .12, p < .00$ ), Maternal Hostility ( $\beta = .15, p < .00$ ), and Both ( $\beta = .14, p < .00$ ). A reoccurring pattern can be seen with the predictive variables Other, Sex, and Parent Index of Social position. The variables reflected similar statistical significance as shown in models 1 and 2.

In Model 1, a significant regression equation was found [ $F(9, 844) = 10.24, p < .00$ ], with an  $R^2$  of .10 and focused primarily on the control variables. Specifically, it was found that three variables significantly predicted RCMAS: Total Anxiety Score in Model 1: Other race ( $\beta = .10, p < .01$ ), Sex ( $\beta = .14, p < .00$ ), and Parent Index of Social Position ( $\beta = .12, p < .00$ ). Thus, the participants that identified their race/ethnicity as Other had higher scores for anxiety in comparison to those who identified as White. It was also shown that the prediction variable Sex was significant in the prediction of a higher anxiety score, which can be divided into participants either identifying as either male or female. This finding suggests that females scored significantly higher than males on the RCMAS. A higher score on the Parent Index of Social Position variable was found to be significant in the prediction of a higher anxiety score for a participant.

## DISCUSSION

This study focused on examining the potential link between parental conflict exposure within the household and displays of anxiety in justice-involved youth. The null hypothesis was rejected, as it was found that there was a difference in the prevalence of anxiety symptoms between different exposures to parental conflict. When looking at three different groupings of DV exposure (Both, Verbal Only, and No Exposure), the findings showed that the exposure to both more serious forms (physical DV) and lesser forms (verbal arguments) of parental conflict will lead to a higher chance of anxiety symptoms developing among the participants in the study. Physical DV, in the case of this study, is prefaced by verbal conflict as explained through the family conflict theory (Whitaker et al., 2007). Exposure to both forms of parental conflict shows a statistical difference in relation to a participant's RCMAS: Total Anxiety Score, as displayed in both tables 3 and 4, when compared to either Verbal Only or No Exposure. This runs counter to a previous research study that indicated that verbal abuse would result in more of an impact on the development of anxiety symptoms, compared to exposure to verbal abuse (Dye, 2019).

Prior research suggests that physical DV tends to escalate after verbal exchanges and/or a gradual build-up that results in an individual lashing out towards another, and such reasoning was used in the grouping of the "Both" variable (Whitaker et al., 2007). As a result, the presence of physical DV may have been prefaced by the introduction of verbal DV between parental figures, thereby exposing a child to multiple forms of DV. By witnessing any form of DV in one's childhood, it was found that the exposure acts as a source for later internalized and/or externalized behaviors (Mathias et al., 1999; Graham-Bermann & Perkins, 2010). These early introductions to domestic violence for justice-involved youth are shown to have negative effects

on their mental state when reviewing the participants' baseline responses, especially in regard to the presence of anxiety as measured by the RCMAS: Total Anxiety Scale.

Theoretically, both the General Strain Theory (GST) and the theory of psychosocial development provide a framework for contextualizing the findings. General Strain Theory suggests that as a result of stressors (such as parental rejection, victimization, and so on), an individual may respond with some form of deviance. This may also result in the strain causing some form of negative emotion, which may manifest into mental health concerns with depression, anxiety, paranoia, and other forms of internalized and externalized behaviors (Agnew, 2014). GST applies to anxiety developed from the witnessing of DV when negative stimuli come into play, which can include either forms of DV or the convergence of both physical DV and verbal DV (Agnew, 2001). In relation to the results of this study, it was found that the GST may be intrinsically linked to the development of anxiety in justice-involved youth that were faced with exposure to negative stimuli (DV within the household), thereby indicating a potential strain that may result in a negative emotion (anxiety).

The psychosocial theory of development acts as a broader explanation for the findings, in the sense that biological, psychological, and social factors will all work together in one's development through all five stages of life. Witnessing DV at such a young age may result in a negative response within the juvenile's behavior, such as the development of anxiety or anxiety-related symptoms (Orenstein & Lewis, 2020). The young ages is reflective of the age of the participants at the baseline of the study, as the participants range from young teens to young adults. Depending on the age of parental conflict exposure, the stages may vary in their starting point. However, at each stage within the adolescent's life, there are factors that help to develop and shape the individual according to the psychosocial theory of development. This study

touches lightly on the concept of the theory, as there are a variety of age ranges at the baseline. The age range of the participants involved was between 14 and 17 years old, but exposure to DV may have occurred at any stage of their lives. Therefore, the concept can be applied, but there is not enough information to pin exactly when the participants were exposed and for how long, which may create different effects within the development of negative responses (i.e., anxiety).

Similar results in the current study were found in prior research comparing children of unabused mothers and children of abused mothers. Children of abused mothers were more likely to exhibit more internalized and/or externalized behaviors than children of unabused mothers (McFarlane et al., 2003). Internalized behaviors included the development of anxiety, depression, withdrawal, and somatic complaints amongst a sample of children that were either clinically referred or non-referred. This highlights the correlation between witnessing the abuse of a parent and a higher chance for anxiety in comparison to children who have not been exposed to DV within the household.

The critical finding from the analyses conducted in the study is centered on the variables within the Classes of Exposure grouping. It was found that when verbal DV and physical DV were combined, as displayed in the variable of “Both,” there was statistical significance in relation to the RCMAS: Total Anxiety Score in both Table 3 and Table 4 when compared to either the Verbal Only variable or the No Exposure variable. This alludes to a stronger positive correlation between juveniles witnessing both verbal DV and physical DV and the presence of anxiety-related symptoms. When further analyzing the results of this study, it was found that female participants were more likely to show signs of anxiety than their male counterparts. The “Other” racial/ethnic category also had a tendency for a higher rate of anxiety, which included race/ethnicities that are Asian and Native American. A lower socioeconomic status was found to

significantly predict a higher RCMAS: Total Anxiety Score. Similarly, maternal hostility was also found to be a significant predicting variable for a participant's RCMAS: Total Anxiety Score after introducing Classes of Exposure variables into the hierarchical regression analysis from Table 4.

### Limitations

This study was conducted from an existing data set that was collected by the Pathways to Desistance Project to investigate the treatment and processing of serious adolescent offenders. The originally project was primarily working towards the identification and resulting intervention for antisocial behavior for juvenile offenders, which included looking through the participant's psychological development, behavior, social relationships, mental health, and experiences in the juvenile or criminal court system (Schubert et al., 2004). As a result, the original project created a set of measures that had to be adjusted to address the question posed in the study. Therefore, I was unable to use questions specifically pertaining to the witnessing of DV within the household, and instead focus on baseline questions that alluded to the notion of violence within the home, as seen with the questions "Did your parents have arguments?" and "Did your parents have physical fights?". A point that needs to be addressed, however, is the accuracy of the question "Did your parents have arguments?" when referring to potential verbal abuse rather than verbal arguments/conflict within the household of the participant. This may result in confusion for participants in how they perceive the term "arguments," as the question does not address violence or verbal abuse. One participant may believe that the occasional verbal exchange over a passing issue constitutes as an argument, while another may view arguments that occur on a daily basis as the "norm" rather than anything to be concerned about. This

variation may mix verbal conflict with forms of verbal DV when referring to verbal abuse, but I was unable to control these variations within the data set.

The exclusion of the “Paternal” variable under the grouping of Parental Warmth and Hostility was decided when reviewing the available data. The decision to remove the variable from the analyses was due to a large amount of missing data for the biological fathers of the participants. Substance markers for the paternal variable, as a result, were missing from the majority of the data sets and there was too small of a population pool to be generalized in any form. However, this does not discredit a male figure’s participation in exposing children to DV within a household. Despite being removed from this study for the sake of their available population based upon participant responses, this does not mean that they did not have any “Yes” responses within the data set for Paternal Warmth or Paternal Hostility. Likewise, single parent households were removed from the ANOVA testing as well. “Parents” having arguments may not apply to single parent households, as the participant may view that as something irrelevant to their situation even if there are signs of DV within the household based on their mother dating/seeing someone. Once again, this does not remove a paternal figure from potentially being the source of abuse within the sample population of participants. There was not enough data provided to pursue that portion of the parental warmth and hostility questions. In a similar vein, the variable of Maternal Hostility was controlled as a way to isolate the effect of DV exposure between parental figures rather than towards the participant through direct abuse. However, the variable of Paternal Hostility was unable to be controlled in the same matter. This was due to the lack of responses available in the dataset, which meant that the relationship between the participant and the father figure could not be gauged appropriately.

Due to a lack of information within the Pathways to Desistance Project on other forms of DV within a household, such as sexual abuse and economic abuse, I was unable to address those additional types of DV within the study. However, both forms of DV provide a potential future study as both forms may correlate to the display of anxiety in different measures than verbal abuse or physical abuse. Future research conducted with those variables in mind, along with combining the variables for alternative independent variables, may prove beneficial to further studies in regard to anxiety in juvenile populations.

### Implications

This study may provide both professionals and policymakers a better understanding of justice-involved youth and their internalized behavior, that of which includes the development of anxiety. With this knowledge, they can make informed decisions on how to address and assist said youth, allowing them a stronger foundation and a plan moving forward in regard to handling their anxiety. The study may also provide social workers and practitioners with identifiers to look for when under the impression of potential abuse within the home, even if the adolescent is not the one facing the abuse directly. This may allow for an early addressal of the issues within the adolescent's household and may help to either rectify the situation within the household or provide the adolescent the means and assistance that may steer them away from antisocial behavior and the potential for serious offences.

If an individual is already labeled as a justice-involved youth, it may allow for a better grasp on potential future rehabilitation efforts and assistance provided with our justice systems. This study will allow the court to make an educated decision on what the adolescent's sentence should be in order to best assist them in their future rehabilitation. This will also assist when the adolescent is serving their sentence, as it gives professionals a better understanding of what their

background may be if they display certain red flags for potential abuse within their household. As shown by the analysis of the data in this study, it was found that symptoms of anxiety are more likely to occur in justice-involved youth that may have come from a home situation with serious forms of parental conflict that coincides with verbal exchanges. By applying these findings to the care and management of adolescents finding themselves in the criminal justice system, there may be a healthier and more beneficial way for youth to find the help and path they need for a healthy rehabilitation and the addressing of potential mental health concerns.

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