A Chronic Route?: Examining the Path between Community Violence Exposure, Posttraumatic Stress & Juvenile Delinquency in Low-Income, Urban, African-American Youth

Kaleigh Valencia Wilkins

Follow this and additional works at: https://ecommons.luc.edu/luc_theses

Part of the Clinical Psychology Commons

Recommended Citation
https://ecommons.luc.edu/luc_theses/4378

This Thesis is brought to you for free and open access by the Theses and Dissertations at Loyola eCommons. It has been accepted for inclusion in Master’s Theses by an authorized administrator of Loyola eCommons. For more information, please contact ecommons@luc.edu.

This work is licensed under a Creative Commons Attribution-Noncommercial-No Derivative Works 3.0 License.
Copyright © 2020 Kaleigh Valencia Wilkins
LOYOLA UNIVERSITY CHICAGO

A CHRONIC ROUTE?: EXAMINING THE PATH BETWEEN COMMUNITY VIOLENCE EXPOSURE, POSTTRAUMATIC STRESS & JUVENILE DELINQUENCY IN LOW-INCOME, URBAN, AFRICAN-AMERICAN YOUTH

A THESIS SUBMITTED TO
THE FACULTY OF THE GRADUATE SCHOOL
IN CANDIDACY FOR THE DEGREE OF
MASTER OF ARTS

PROGRAM IN CLINICAL PSYCHOLOGY

BY
KALEIGH V. WILKINS
CHICAGO, IL
DECEMBER 2020
Copyright by Kaleigh V. Wilkins, 2020
All rights reserved.
# TABLE OF CONTENTS

**ACKNOWLEDGMENTS**  
v
**LIST OF TABLES**  
vi
**LIST OF FIGURES**  
vii
**LIST OF ABBREVIATIONS**  
viii
**ABSTRACT**  
ix

## CHAPTER ONE: INTRODUCTION  
1

## CHAPTER TWO: LITERATURE REVIEW  
3
   Theoretical Framework: The Reciprocal-Stress Model  
3
   Exposure to Community Violence as a Predictor  
4
      Exposure to Community Violence as a Predictor of Posttraumatic Stress  
6
      The Role of Gender in ECV-PTSS Relations  
8
      Exposure to Community Violence as a Predictor of Juvenile Delinquent Behavior  
9
      The Role of Gender in ECV-JDB Relations  
10
   The Mediators: Posttraumatic Stress as a Predictor of Juvenile Delinquent Behavior  
10
   Exposure to Community Violence as an Outcome  
11
      Posttraumatic Stress as a Predictor of Exposure to Community Violence  
12
      Juvenile Delinquent Behavior as a Predictor of Exposure to Community Violence  
12
   Current Study  
13
      Research Objectives and Hypotheses  
13

## CHAPTER THREE: METHOD  
16
   Participants  
16
   Procedure  
16
   Measures  
17
      Demographics  
17
      Exposure to Community Violence  
17
      Posttraumatic Stress Symptoms  
17
      Juvenile Delinquent Behavior  
18
   Data Analytic Plan  
18

## CHAPTER FOUR: RESULTS  
22
   Preliminary Analyses  
22
   Moderated Serial Mediation Analyses  
22
      Objective 1. Examining Aggregate PTSS  
22
         Victimization of Exposure to Community Violence  
22
         Witnessing of Exposure to Community Violence  
22
      Objective 2. Examining Subscales of PTSS  
23
Victimization of Exposure to Community Violence  
Witnessing of Exposure to Community Violence  
Post Hoc Analyses  

CHAPTER FIVE: DISCUSSION  
Limitations  
Clinical Implications  
Future Directions  
Conclusion  

APPENDIX A: EXPOSURE TO VIOLENCE-REVISED (EV-R)  
APPENDIX B: TRAUMA SYMPTOM QUESTIONNAIRE (TSQ)  
APPENDIX C: JUVENILE DELINQUENCY SCALE-SELF REPORT (JDS-SR)  
REFERENCE LIST  
VITA
ACKNOWLEDGEMENTS

Thank you to my village who has watched me read articles at all hours of the day and night, listened to me hypothesize at the dinner table and type paragraphs during commercial breaks. Thank you for being my source of strength and support. I love you much.

I would also like to thank my professors and fellow graduate students in the Psychology Department at Loyola University Chicago who have encouraged both this project as well as my graduate schooling thus far. Thank you to my committee chair, Dr. Maryse Richards, who has constantly pushed me to challenge my own thinking and soar to new heights, academically and professionally. Thank you to Dr. Noni Gaylord-Harden, who has continuously provided me with context, clarity and confidence to succeed on my quest to meet this milestone and beyond. Thank you to Dr. Fred Bryant and Catherine Dusing, M.A. who served as my informal statisticians and helped me numerically write this story.

It is with great appreciation that I also recognize the National Institutes of Mental Health (Grant RO1 H57938-01A2) for funding this project and the Risk & Resilience Lab who collected this data that, at the time, my three-year-old self could not.

Finally, I would like to thank the participants of this study. To the legacy of these participants and the communities who these stories represent now, may we continue to understand and articulate your experience in the academic world to, hopefully, inform future supports for you in the clinical world.
LIST OF TABLES

Table 1. Means, Standard Deviations, and Correlations of Variables. 34
LIST OF FIGURES

Figure 1. Objective 1: Statistical Model 35

Figure 2. Objective 2: Conceptual Model 36

Figure 3. Objective 1: Hypothesis 1b. ECV (Witnessing) $\rightarrow$ PTSS (Aggregate); ECV (Witnessing) $\rightarrow$ JDB; JDB $\rightarrow$ ECV (Witnessing) 37

Figure 4. Objective 2: Hypothesis 2h. ECV (Witnessing) $\rightarrow$ PTSS (Hyperarousal); ECV (Witnessing) $\rightarrow$ JDB; JDB $\rightarrow$ ECV (Witnessing) 38

Figure 5. Objective 2: Hypothesis 2i. ECV (Witnessing) $\rightarrow$ PTSS (Intrusion); ECV (Witnessing) $\rightarrow$ JDB; JDB $\rightarrow$ ECV (Witnessing) 39

Figure 6. Post Hoc Analyses. Subsample: Girls Only: ECV (Witnessing) $\rightarrow$ PTSS (Hyperarousal); ECV (Witnessing) $\rightarrow$ JDB; PTSS (Hyperarousal) $\rightarrow$ ECV (Witnessing); JDB $\rightarrow$ ECV (Witnessing) 40

Figure 7. Post Hoc Analyses. Subsample: Girls Only: ECV (Witnessing) $\rightarrow$ PTSS (Intrusion); ECV (Witnessing) $\rightarrow$ JDB; PTSS (Intrusion) $\rightarrow$ JDB (Trending); JDB $\rightarrow$ ECV (Witnessing) 41

Figure 8. Post Hoc Analyses. Subsample: Girls Only: ECV (Witnessing) $\rightarrow$ PTSS (Avoidance) (Trending); ECV (Witnessing) $\rightarrow$ JDB; JDB $\rightarrow$ ECV (Witnessing) 42

Figure 9. Post Hoc Analyses. Subsample: Girls Only: JDB $\rightarrow$ ECV (Victimization) 43
LIST OF ABBREVIATIONS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECV</td>
<td>exposure to community violence</td>
</tr>
<tr>
<td>EV-R</td>
<td>Exposure to Violence-Revised</td>
</tr>
<tr>
<td>JDB</td>
<td>juvenile delinquent behavior</td>
</tr>
<tr>
<td>JDS-SR</td>
<td>Juvenile Delinquency Scale-Self Report</td>
</tr>
<tr>
<td>PTSS</td>
<td>posttraumatic stress symptoms</td>
</tr>
<tr>
<td>SPSS</td>
<td>Statistical Package for the Social Sciences</td>
</tr>
<tr>
<td>TSQ</td>
<td>Trauma Symptom Questionnaire</td>
</tr>
</tbody>
</table>
Exposure to community violence (ECV; direct victimization and witnessing) can predict negative outcomes for youth such as posttraumatic stress (PTSS) and juvenile delinquent behavior (JDB). Psychosocial reactions to violence can be different based on gender. Predictors of ECV in youth is less understood. This study aims to explore potential chronic pathways between initial ECV and continued ECV for early adolescents. The relationship between ECV as a predictor and ECV as an outcome is hypothesized to be mediated by both PTSS and JDB and moderated by gender. A total of 152 African-American, sixth grade students in high crime, high poverty areas participated in this study for three years ($M= 11.65$, 59% female). Participants completed self-report surveys at baseline, then 12- and 24-months after the initial questionnaire was administered. Moderated serial mediation was used to assess the longitudinal associations. For all witnessing models, JDB at Time 3 significantly predicted ECV-witnessing at Time 3 for the whole sample. Gender moderated several paths. For girls, more ECV-witnessing at Time 1 led to increased PTSS at Time 2 and increased JDB at Time 3. For the PTSS subscales models, among girls, more ECV-witnessing at Time 1 led to increased hyperarousal and increased intrusion symptoms at Time 2. Posthoc analyses confirmed these findings; analyses also indicated that hyperarousal at Time 2 significantly predicted ECV-witnessing at Time 3 for girls only subsample. ECV-witnessing at Time 1 significantly predicted JDB at Time 3 which significantly predicted ECV-witnessing at Time 3. Results contribute to our understanding of the trajectory of ECV-witnessing and the roles both PTSS subscales and JDB play in that trajectory, especially among girls.
CHAPTER ONE
INTRODUCTION

The state of something being chronic refers to a persistent problem that can negatively alter the life course of the person or persons it affects. Though usually discussed in the context of medical health, the term “chronic” can also be just as fitting for some mental health related conditions. For instance, exposure to interpersonal stressors can drastically influence developmental outcomes in youth, resulting in long-standing, negative psychosocial effects. One chronic mental health condition that has yet to be fully understood is the psychosocial effects of exposure to community violence in early adolescence. Research consistently shows that varying types of exposure to community violence negatively influences development during urban adolescence (McDonald, Deatrick, Kassam-Adams & Richmond, 2011); however, little is known about the intricacies and specific pathways that lead to recurring stress and continued exposure to violence overtime.

Regardless of one’s neighborhood or community, autonomy is a common developmental milestone that occurs in typical early adolescence (Oudekerk, Allen, Hessel & Molloy, 2015). At this age, early adolescents begin to desire less adult supervision and may experience wanting to physically and emotionally distance themselves from their parents and their homes. Specifically, early adolescents may spend more time out in the community (e.g., via increased interactions and unstructured/leisure activities with peers, commuting to and from school, etc.) (Larson & Richards, 1991; Larson, Richards, Sims, & Dworkin, 2001) and less time—and willingness—to
share social experiences with parents in attempts to establish a sense of independence in problem solving and emotion processing. Nevertheless, learning to navigate and exercise autonomy can be an extremely winding road early adolescents living in low-income urban neighborhoods as they are constantly met with exposure to violence along their literal and metaphorical routes in life. Exposure to violence in the community can further complicate urban, early adolescents’ independence-seeking process by introducing immense stress that can disrupt development in the present as well as, ultimately, by continuing long-term into emerging adulthood (Heinze et al., 2017).
CHAPTER TWO

LITERATURE REVIEW

The current research aims to address a gap in the literature and explore one possible avenue for the ongoing effects of chronic exposure to community violence in early adolescence. By examining potential risk factors related to violence exposure, researchers can have a better understanding of the trajectories in which this relationship occurs and begin to understand the resilience factors needed to respond more effectively to the warning signs.

**Theoretical Framework: The Reciprocal-Stress Model.**

The theory guiding this study is the reciprocal-stress model. The reciprocal-stress model provides an explanation for how traumatic experiences and psychosocial outcomes may be related (Kim, Conger, Elder & Lorenz, 2003). The model suggests that as one is exposed to a stressor, this experience influences the development of internalizing and externalizing problems; these problems then may contribute to increased risk and interaction with more stressful life events. (Kim et al., 2003). This indicates that the process is, in some ways, dynamic and thus, a complex and chronic relationship. The reciprocal-stress model is a good fit for helping to understand the pathways proposed in this project because the theory posits that the development of psychosocial outcomes as a result of experiencing a life stressor may be reinforcing in some way and can possibly facilitate continuous exposures with more life stressors overtime. For this study specifically, the model provides a framework from which to understand the way early adolescents’ initial exposure to community violence could lead to the development of
posttraumatic stress symptoms and juvenile delinquent behaviors which could facilitate one’s exposure to violence again in the future.

**Exposure to Community Violence as a Predictor.**

Community violence exposure has been studied in youth around the world for decades. Research shows that chronic exposure can have countless negative effects. Some of the most common known outcomes of exposure to community violence are psychologically related, namely experiencing internalizing symptoms (i.e. anxiety, depression, post-traumatic stress symptoms) as well as externalizing symptoms (i.e. engaging in differing forms of delinquent behavior) (Fowler et al., 2009). Considering that ‘exposure’ is a multi-dimensional experience inclusive of various types, past research best explains ‘exposure’ by categorizing it into three groups: (1) primary, (2) secondary and (3) tertiary (Buka, Stichick, Birdthistle & Earls, 2001). In this study we will only examine the primary and the secondary components as both are the most prevalent in the community setting. Primary exposure, or here forth noted as “victimization”, refers to directly experiencing violence via actually being harmed while secondary exposure, or here forth noted as “witnessing”, refers to indirect exposure via seeing a violent act that occurs to another person (Buka et al., 2001). For low income, largely ethnic-minority, urban communities, similar to some on the South and West sides of Chicago, exposure to violence has become an epidemic as between 50% and 96% of youth residing in similar environments have witnessed violence (Zimmerman & Messner, 2014) and more than 70% have been victims of violence (Cooley-Strickland et al., 2009). One study even showed that youth living in similar environments experience approximately one violent incident in their community a day each week (Richards et al., 2015), showing that exposure can be an ever-present experience for young people living in high-risk neighborhoods. Thus, residence in these areas predicts higher levels of
exposure and largely affects African-American urban, low-income youth (Bureau of Justice Statistics, 2011).

Although there are similar effects across the two types of violence, studying victimization and witnessing as separate exposures, as opposed to one single, collective exposure, is important because it better explains the uniqueness in experiences regarding predictors and resulting outcomes (Goldner, Gross, Richards, & Ragsdale, 2015; Howard, Feigelman, Li, Cross & Rachuba, 2002). Understanding the two experiences as separate is also important because it helps researchers conceptualize specific promotive mechanisms to better inform treatment development against adverse effects of the different exposure types. For example, one study found social support to alleviate depression and anxiety symptoms differently for victimization versus witnessing (Hammack, Richards, Luo, Edlynn & Roy, 2004). Victimization of exposure to community violence has a large predictive impact on the development of symptomology in comparison to any other type of exposure. Victimization is the closest proximity of the exposure and, thus, greatly impacts the severity and level of distress and psychological impairment on experiences (Fowler et al., 2009). Witnessing community violence exposure affects people within close distance of a violent act thus emotionally contaminating the area and leading the psychological effects to span much farther and wider. An entire neighborhood is subject to residual effects of a community violence as they automatically become witnesses by either seeing the violent event happen or by hearing about it. For youth living in areas with concentrated disadvantage, there is a higher risk for witnessing violence (Gibson et al., 2009). For some, simply perceiving one’s neighborhood as dangerous can contribute to more distress (Cuartas & Roy, 2019).

Relatedly, studying victimization and witnessing separately is especially important in
helping to understand differences in experiences and expression of one’s distress based on gender (Cooley-Strickland et al., 2009). Some of the most common predictors of exposure to community violence, quite generally, are related to one’s identity. Most specifically, gender, plays a vital role as predictor for exposure and thus, it is important to explore these variables in the context of differing types of exposure. Although some research shows little difference in the level of exposure, the majority of findings suggest that, boys are more likely to be victims of and witnesses of community violence than girls (Fitzpatrick & Boldizar, 1993; Foster, Kuperminc & Price, 2004, Gladstein et al., 1992, Gibson, Morris & Beaver, 2009; Cooley-Strickland et al., 2009) and that the amount of severity and frequency of this violence exposure is reported more by boys (Cooley-Strickland et al., 2009). However, in one study examining violence exposure on a day-to-day basis, girls were found to have more experiences with community violence exposure than boys (Richards, et al., 2015).

**Exposure to Community Violence as a Predictor of Posttraumatic Stress.**

As previously discussed, for youth, both victimization and witnessing of violence exposure can lead to several negative psychological concerns in children and adolescents, in particular the development of posttraumatic stress symptoms (Buka et al., 2001; Cooley-Quille, Boyd, Frantz, & Walsh, 2001; Fowler et al., 2009; Gibson et al., 2009; Zinzow et al., 2009; Kliwer, 2006).

Posttraumatic stress symptoms can be conceptualized in terms of symptom subsets. These subsets are shaped primarily based on the ways in which posttraumatic stress symptoms manifest and are identified by using the terms *numbing, avoidance, intrusion, dissociation* and *hyperarousal* (Taylor, Koch, Kuch, Crockett & Passey, 1998). Posttraumatic symptoms have been explored together as well as separately in order to best understand the collective and well as
independent relationship each have with community violence exposure. Some research suggests that numbing occurs when urban youth have been repeatedly exposed to community violence (Kohl, Gross, Harrison & Richards, 2015). **Numbing** refers to an “emotional desensitization” or an unemotional response to future violence as a result of constant, repeated exposure, thus negatively impacting the young person’s overall well-being (Kennedy & Ceballo, 2016; Kerig, Bennett, Thompson & Becker, 2012). For African-American youth, emotional desensitization occurs as a result of exposure to community-based violence (Gaylord-Harden, Cunningham & Zelencik, 2011); this may be viewed as a form of suppressing feelings, namely depression- and anxiety-based symptoms, in an attempt to protect themselves and thus reduce vulnerability to future danger (Gaylord-Harden et al., 2011; Gaylord-Harden, Dickson & Pierre, 2016). Other studies have proposed that numbing occurs via a cognitive desensitization that may contribute to a “normalized” view and belief of violence, though evidence for this is mixed (Gaylord-Harden, Bai & Simic, 2017). **Avoidance** refers to the circumventing of thoughts, memories and feelings that remind a person of a particular trauma and, thus, cause them distress (American Psychiatric Association, 2013). Some findings have suggested that for African-American urban, youth experiencing exposure to violence in their communities, behavioral and cognitive avoidance techniques were used as a coping mechanism to help support themselves in times of heightened exposure and, thus, heightened arousal (Dempsey, Overstreet & Moely, 2000). **Intrusion** refers to the involuntary memories, dreams, or other cues about a particularly traumatic event that are recurrent and lead to extreme psychological distress (American Psychiatric Association, 2013). Intrusive thinking has been found to mediate the relationship between anxiety/depressive symptoms (Kliewer, Lepore, Oskin & Johnson, 1998). **Dissociation** refers to a complete altered state of awareness and connection to oneself and the world around them after faced with severe
and persistent traumatic experiences (Bryant, 2007). Similar to a flashback, this could include elements of depersonalization and/or derealization (American Psychiatric Association, 2013). Research suggests that recurrent exposure to violence is indeed correlated with and found to significantly predict the development of dissociative symptoms (Rosenthal, 2000; Cecil, Viding, Barker, Guiney & McCrory, 2014; Davies & Flannery, 1998). Lastly, research shows psychological hypersensitivity to specific stimuli occurs after exposure to community violence and can lead to increased levels of arousal (Gaylord-Harden et al., 2017; Kohl et al., 2015).

Hyperarousal symptoms can present in both physical and psychological forms with an individual being on “high alert” at all times as well as experiencing overall, constant irritability and lack of concentration regardless of the context (American Psychiatric Association, 2013). In some instances, hyperarousal is seen to be a protective factor used to help prevent and fight off potential negative emotional responses to more violence exposure in the future (Smith & Patton, 2016).

**The Role of Gender in ECV-PTSS Relations.** Several studies have begun to examine exposure to community violence and specific gendered differences in the development and presentation of posttraumatic stress symptoms. Some studies have found that though the number of symptoms reported did not differ across genders, the type of symptoms presented varied from boy to girl respondents (Foster, Kuperminc & Price, 2004; Cooley-Strickland, et al., 2009). Even though boys may be experiencing more exposure, they report less internalization and more emotional desensitization or numbing to this exposure than girls (Ng-Mak, Steve, Salzinger & Feldman, 2002; Gaylord-Harden et al., 2017). Some studies have shown that there is a difference in the types of avoidance techniques practiced based on gender such that girls may avoid certain places, situations and other possible danger stimuli more than boys. Some research
suggests that this difference may be due to the fear of potential future violence exposure, ultimately limiting overall mobility in girls (May, Rader & Goodrum, 2010; Cobbina, Miller & Brunson, 2008). Gender differences in experiences of intrusion have scarcely been reviewed in the community violence exposure literature. For dissociation, one study found that, for boys, only witnessing violence rates were significantly correlated to dissociation while both witnessing violence and victimization rates were significantly associated with dissociation for girls (Foster et al., 2004). Another study found that a singular experience of violence exposure (as opposed to ongoing exposure experiences) predicted dissociation more for girls than boys (Zona & Milan, 2011). Hyperarousal has been deemed to be the most common posttraumatic stress symptom experienced by young African-American boys (Rich & Grey, 2005).

Exposure to Community Violence as a Predictor of Juvenile Delinquent Behavior (JDB).

Along with internalizing difficulties such as PTSS, community violence exposure is connected to the development of externalizing problems in children and adolescents (Fowler et al., 2009; Zimmerman & Messner, 2013; Forster, Grigsby, Unger & Sussman, 2015; Cooley-Strickland et al., 2009) and this is particularly true for violent delinquent behaviors (Franzese, Menard, Weiss & Covey, 2017). Some studies have focused on understanding how repeated exposure to perpetration of violence in one’s community, whether witnessing or victimization, can lead to a sense of normalization in cognitions and beliefs about violence (i.e., general, retaliatory-specific, etc.). Assimilating thoughts about aggression can lead youth to “model” or imitate other individuals’ behavior, ultimately leading them to potentially act on those thoughts and partake in violent behavior themselves (Dusing et al., 2018; Orue et al., 2011; Guerra, Huesmann & Spindler, 2003; McMahon, Felix, Halpert & Petropoulos, 2009). Other studies have focused on the impact of traditionally auxiliary variables (i.e. peer relations, lack of
parental monitoring, etc.) on exposure to violence and delinquency. For communities that are plagued with violence exposure, involvement in deviant behavior increases as there is more access and opportunity for negative influences (O’Donnell, Richards, Pearce & Romero, 2012).

**The Role of Gender in ECV-JDB Relations.** A large bulk of research regarding exposure to community violence suggests that one major outcome for boys is the development of externalizing symptoms, such as delinquent behavior (Deane et al., 2018; Buka et al., 2001; Tolan, Gorman-Smith & Henry, 2003). Some other studies, however, have reported that girls may also be experiencing some vulnerabilities to externalizing behaviors when exposed to community violence (Farrell & Bruce, 1997). One study found that girls’ experiences of exposure to violence in their community during adolescence specifically predicted offending during adulthood (Franzese et al., 2017).

**The Mediators: Posttraumatic Stress as a Predictor of Juvenile Delinquent Behavior.**

Several studies have examined the way in which posttraumatic symptoms relate to delinquent outcomes (Buka et al., 2001; Fowler et al., 2009; Gibson et al., 2009). The development of certain posttraumatic stress symptoms, such as numbing and hyperarousal specifically, can be predictive of both genders adolescent offending (Allwood, Bell, & Horan, 2011). Similarly, diminished feelings of sadness and fearfulness are associated with aggressive behavior (Allwood, Bell, & Horan, 2011). Other studies suggest that the biological processing after exposure to a violent event can contribute to what has been termed “hyperarousal-induced aggression” (Pavic, 2003; Veenema & Neumann, 2007). With chronic exposure to violence, one can experience extreme dysregulation of their hypothalamic-pituitary-adrenal axis, an important system for responding to stress, that can result in difficulties with interpreting, and thus impulsively and/or reactively responding to environmental cues (Lynch, 2003; Perry, 2001).
Relatedly, the development of posttraumatic stress symptoms has been found to increase the likelihood for future involvement in the juvenile justice system such that the severity level of one’s posttraumatic stress symptoms has contributed to the frequency and degree of one’s delinquency (Becker & Kerig, 2011). Age, gender and ethnicity play a vital role as well in that African American youth with Post-Traumatic Stress Disorder have higher recidivism rates than their peers (Becker, Kerig, Lim, & Ezechukwu, 2012). Additionally, understanding the time frame between experiencing posttraumatic stress symptoms and subsequent delinquent behaviors is important as it helps to inform the trajectory of symptom presentation. One study that used a similar sample noted a significant relationship between posttraumatic stress symptoms and the development of aggressive behaviors one year later (Deane et al., 2018). Other studies looking at a similar population has also found that delinquent behaviors can quickly develop as a result of posttraumatic stress symptoms (Ortiz, Richards, Kohl, & Zaddach, 2008), one even specifying that symptoms can develop the same day as exposure as well as next day (Deane, Richards & Santiago, 2020).

**Exposure to Community Violence as an Outcome.**

Understanding outcomes of community violence exposure has been a topic that primarily focuses on specific adverse life events and stressors that can ultimately lead people to be vulnerable. Though many studies have argued that various contextual circumstances are important to protect youth from developing negative outcomes of exposure, others have found it essential to explore risk factors that contribute to and can possibly prevent community violence exposure (Burnside & Gaylord-Harden, 2019). More research is needed to better understand specific components of this predictive relationship in urban youth populations.
Posttraumatic Stress as a Predictor of Exposure to Community Violence.

There is minimal research to suggest that posttraumatic stress symptoms predict exposure to community violence. Some literature, however, examines the predictive relationship between the role of emotion regulation and exposure to community violence, and emotion regulation has been found to be related to posttraumatic stress symptoms (Ortiz et al., 2008; Seligowski, Lee, Bardeen & Orcutt, 2015). Children who experience trauma may have difficulties processing their responses to certain events and, thus, may be more likely to have behavioral problems. Young people then ultimately put themselves at risk for more exposure to violence as a result of difficulties regulating their emotions whether it is more aggressive behavior or if depressed, appearing to be weak and helpless (Sweeney, Goldner & Richards, 2011; Ortiz et al., 2008).

Juvenile Delinquent Behavior as a Predictor of Exposure to Community Violence.

In recent years, some research has begun to examine what externalizing difficulties put youth at risk of exposure to violence. One realm of research has focused on understanding how getting into trouble could potentially lead youth to more exposure to violence. One study, specifically tried to understand this relationship by examining the mediating impact of hopelessness and delinquent behavior on exposure to violence in justice-involved youth (Burnside & Gaylord-Harden, 2019); this study found that having a negative mindset on the outlook of one’s future can contribute to exposure to violence as lack of concern with the potential consequences of delinquency may increase involvement and interaction with violent settings or people. Other research shows that individuals are often perpetrators and victims and/or witnesses of violence at the same time. It has been understood that individuals can indeed have a dual status as both a perpetrator and a victim in certain instances (Hamby & Grych, 2012). Research suggests that this “co-occurrence” happens as an initial violent experience
which then, at times, contributes to more exposure and, thus, increased interaction with dangerous situations and conditions (Hamby & Grych, 2012; Fowler et al., 2009). The initial experience of being exposed to violence in one’s community significantly can increase one’s involvement in externalizing and delinquent behaviors; in turn, involvement in such behaviors can increase one’s risk of exposure to community violence over the course of the next year (Esposito, Bacchini, Eisenberg, & Affuso, 2017; Mrug & Windle, 2009). With prior research heavily focusing on the interconnectedness of perpetration- and victim-status in interpersonal violence, bullying, and childhood delinquency (Hamby & Grych, 2012), understanding the compounding psychosocial underpinnings of this re-victimization and re-perpetration pattern with urban youth and community violence has not been studied.

**Current Study.**

This study will further explore the potential for a chronic route between various types of violence exposure and its subsequent effects overtime. Thus, this study aims to analyze the impact of early adolescents’ exposure to violence in their communities, on community violence exposure two years later with posttraumatic stress, and delinquent behavior as mediators. Gender is expected to moderate this relationship such that there will be differences in experiences for boys and girls.

**Research Objectives and Hypotheses.**

**Objective 1.** Understand the experiences of increased exposure to violence overtime, by way of posttraumatic stress symptoms and delinquency.

**Hypothesis 1a.** For victimization, ECV (Time 1) will contribute to an increase in PTSS (Time 2) which will then increase the level of delinquency (Time 3) which will finally contribute to greater ECV victimization (Time 3).
**Hypothesis 1b.** For witnessing, ECV (Time 1) will contribute to an increase in PTSS (Time 2) which will then increase the level of delinquency (Time 3), which will finally contribute to greater ECV victimization (Time 3).

**Objective 2.** Understand the role of increased specific posttraumatic stress symptoms in the experience of increased exposure to violence over time.

**Hypothesis 2a.** For ECV via victimization (Time 1), increased symptoms of hyperarousal (Time 2) will increase the level of delinquency present (Time 3) and thus, lead to more violence victimization for boys and girls.

**Hypothesis 2b.** For ECV via victimization (Time 1), increased symptoms of numbing (Time 2) will increase the level of delinquency (Time 3) present and thus, lead to more violence victimization for boys and girls.

**Hypothesis 2c.** For ECV via victimization (Time 1), increased symptoms of avoidance (Time 2) will decrease the level of delinquency (Time 3) present and thus, lead to less violence victimization for girls but not for boys.

**Hypothesis 2d.** For ECV via victimization (Time 1), increased symptoms of intrusion (Time 2) will increase the level of delinquency (Time 3) present and thus, lead to more violence victimization for boys but not for girls.

**Hypothesis 2e.** For ECV via victimization (Time 1), increased symptoms of dissociation (Time 2) will increase the level of delinquency (Time 3) present and thus, lead to more violence victimization for girls but not for boys.

**Hypothesis 2f.** For ECV via witnessing (Time 1), increased symptoms of hyperarousal (Time 2) will increase the level of delinquency (Time 3) present and thus, lead to more witnessing violence for boys and girls.
Hypothesis 2g. For ECV via witnessing (Time 1), increased symptoms of numbing (Time 2) will increase the level of delinquency (Time 3) present and thus, lead to more witnessing violence for boys and girls.

Hypothesis 2h. For ECV via witnessing (Time 1), increased symptoms of avoidance (Time 2) will increase the level of delinquency (Time 3) present and thus, lead to more witnessing violence for boys but not for girls.

Hypothesis 2i. For ECV via witnessing (Time 1), increased symptoms of intrusion (Time 2) will increase the level of delinquency (Time 3) present and thus, lead to more witnessing violence for boys but not girls.

Hypothesis 2j. For ECV via witnessing (Time 1), increased symptoms of dissociation (Time 2) will increase the level of delinquency (Time 3) present and thus, lead to more witnessing violence for boys and girls.
CHAPTER THREE

METHOD

Participants.

A total of 266 self-identified, African-American, sixth grade students were recruited for participation in this study. The study consisted of a three year-longitudinal data collection by gathering responses to questionnaires each year from students starting in sixth-grade ($M_{age} = 11.65$, $SD = .703$, 59% female). All participants were recruited from six different public schools located in Chicago, Illinois in neighborhoods that were reported to be “high crime areas” by Chicago Police Department. About 60% of the students recruited agreed to participate which is consistent with the percentages recruited in previous studies with similar samples (Cooley-Quille & Lorion, 1999). The retained sample was $N= 152$. The median family income for participants was between $10,000 and $20,000 with 48% of participants living in single parent homes, median household size of five people, and 83% of parents having at least a high school degree while 10% reported having either a college or graduate/professional degree. Students were only excluded from this community sample if it was requested by the student’s teacher.

Procedure.

At the start of the study, researchers collected assents from all student participants and consents from their parents/legal guardians. Student participants and their parents/legal guardians were informed of study details and compensatory benefits before data collection started; student participants received up to $40 in either gift cards, toys or games for involvement in the study.
During each phase of data collection, all participants were asked by research staff to complete self-report surveys while at school, as well as a time sampling technique. Only the self-report surveys will be included in this study.

**Measures.**

**Demographics.** At baseline, all youth completed a questionnaire that gathered participant identifying information. Gender was assessed using a forced choice scale that asked participants to circle either male or female.

**Exposure to Community Violence.** Youth exposure to community violence (i.e. both victimization and witnessing) was measured via the Exposure to Violence-Revised (EV-R) scale which consisted of 25 items. The EV-R was adapted from the My Exposure to Violence: Subject Self-Report, Version 3 (Buka, Selner-O’Hagan, Kindlon, & Earls, 1997). All items were assessed on a 0 (*never*) to 4 (*4 or more times*) scale and included various follow-up questions asking about (1) age of the respondent at the time of the violent experience (2) the victim of the violence, (3) the perpetrator of the violence or (4) the location of the violence. An example of an item is: “Have you seen someone being attacked with something other than a gun or knife (for example: a rock, brick, baseball bat)?” Levels of community violence exposure were assessed by calculating the mean of respondents’ scores. Construct validity and test-retest reliability was established for the original measure at $r = .75$ to $.94$ (Selner-O’Hagan, Kindlon, Buka, Raudenbush & Earls, 1998). See Appendix A.

**Posttraumatic Stress Symptoms.** Student participants completed a 25 item measure called the Trauma Symptom Questionnaire (TSQ) which was used to assess their experiences of post-traumatic stress at all three time points. The TSQ was adapted from the Checklist of Child Distress Symptoms (Richters & Martinez, 1990) and the Trauma Symptom Checklist for
Children (TSCC; Briere, 1996). Each item was measured on a scale from 0 (not true at all) to 3 (very true) and the overall scale was based on the following five subscales needed for DSM diagnosis of Posttraumatic Stress Disorder (Taylor et al., 1998): (1) **numbing** (i.e. “Unable to feel upset (mad, sad, or scared) even when bad things happened”, (2) **avoidance** (i.e. “Tried very hard not to think about something bad or scary that happened to me or someone else”; “Either did not or tried not to go to places that reminded me of something scary or bad that happened to me or someone else”) which assessed both cognitive and behavioral components, (3) **dissociation** (i.e. “Felt like I was not in my body”), (4) **intrusion** (i.e. “I remembered something scary even when I didn’t want to”) and (5) **hyperarousal** (i.e. “I watched things around me really closely so nothing bad would happen”). Data on this scale were collected for 5 days in one week each year during the school day. Data were aggregated across the week for this study. In our sample, this measure had a high total internal consistency at Time 2 (α = .95). See Appendix B.

**Juvenile Delinquent Behavior.** To measure delinquency in youth participants, the Juvenile Delinquency Scale-Self Report (JDS-SR; Tolan, 1988) was used. The JDS-SR is inclusive of 23 items that asked participants to respond from 0 (never) to 5 (5 or more times) to the frequency in which certain behaviors or situations had occurred in their life up until the time in which they were reporting. For instance, participants were asked: “I have skipped school or class without permission from a parent or a teacher”. Reliability for this measure was calculated at α = .89. See Appendix C.

**Data Analytic Plan**

In order to examine the proposed project, a test of moderated serial mediation (Figure 1.) will be conducted using PROCESS macro software for SPSS (Hayes, 2018; mediational model number 85). Moderated serial mediation is being used in this study because it allows for
examination of how variables are connected via a multi-step, sequential process across multiple time points and across two groups (e.g., gender). The serial mediation model was specifically chosen because it allows for investigation of a direct relationship and indirect relationships between a predictor (e.g., ECV at Time 1) and an outcome (e.g., ECV at Time 3); the model also allows for examining potential causality in the indirect relationships (X causes M₁, which causes M₂ which causes and results in Y; Hayes, 2018), thus helping to understand the specific “in between” steps after a predictor that are sequentially connected to an outcome. Additionally, moderation was included as an assessment of whether the hypothesized relationship depended on and differed by gender. Lastly, the longitudinal analyses controlled for baseline and Time 2 mediators.

Monte Carlo Power Analysis for Indirect Effects (Schoemann, Boulton & Short, 2017) simulation software was used to estimate the level of statistical power that the expected sample size (after listwise deletion of missing data) will provide to detect significant serial mediation at p < .05 using bootstrapping. Using the Pearson correlations among the antecedent interaction term, the two serial mediators, and the outcome measure as input, bootstrap analyses (with 10,000 random resamples) reveal that the initial expected sample size of 102 would provide only 14% power to detect significant moderated serial mediation using a 95% confidence interval.

The assumed correlations used as input for the Monte Carlo power analysis can also be used to estimate the expected effect size for the moderated serial mediation (i.e., r = 0.025), by multiplying together the correlations between (1) the independent variable and mediator 1 (r = 0.286), (2) mediator 1 and mediator 2 (r = 0.189), and (3) mediator 2 and the dependent variable (r = 0.456)—that is, 0.286 x 0.189 x 0.456 = 0.025. Assuming roughly equal marginal proportions, this small correlation coefficient (r = 0.025) is equivalent to an odds ratio of 1.105
(Rosenthal & Rubin, 1982), which indicates that the mediational relationship would be expected to increase the odds of exposure of violence at time 3 by 10.5%.

Despite the fact that the serial mediation effect is assumed to be small, the underlying indirect effect may nevertheless have profound implications for the well-being of the children it affects. Effects of comparable sizes to the proposed study \((r = 0.025; \text{odds ratio } = 1.105)\) have been found in several well-known medical studies that have made advancements in health care as a result. For example, one study found that having surgery between 9:30-11:30 am versus any other time of day time is associated with a slightly elevated morbidity risk that was equivalent to an odds ratio of 1.105 (Kelz et al., 2009). Another famous medical study found that taking 325 mg of aspirin every other day reduces mortality from cardiovascular disease—a finding with an effect size of \(r = 0.03\) that motivated a nationwide recommendation that cardiac patients take aspirin as a preventative regimen (Steering Committee of the Physicians’ Health Study Research Group, 1988).

Given the mediated effect in the proposed study is comparable in size to the effects in each of these two medical studies \((r = 0.025, \text{OR} = 1.105)\), these medical examples help demonstrate the potential practical importance of small effects. A correlation of 0.025 means that reducing children’s exposure to violence by one standard deviation in the present would be expected to reduce their exposure to violence one year later to the same extent as (a) avoiding surgery during 9:30-11:30 improves surgical outcomes and (b) taking aspirin every other day reduces mortality risk. Although modest in an absolute sense, this small effect could have a large impact even if it affected only a small percentage of the population (Breaugh, 2003). Despite its small magnitude, the hypothesized serial mediation effect is also important because it may ultimately have a negative impact on the life trajectory of children and families as its effects can
be compounded (Breaugh, 2003) and cumulative over time (Smith & Bryant, 2012), possibly even being transmitted to future generations.

For these reasons, I strongly believe that it is important to conduct the proposed data analyses, even if the current sample size ($N=152$) provides less than optimal statistical power to detect the small hypothesized mediational effect as statistically significant. Even if this mediational effect is found to be nonsignificant, the current sample size will provide the basis for a stable and valid estimate of the strength of the moderated serial mediation, which can then be used to pinpoint the target sample size required to achieve adequate statistical power to detect this effect in future funded research projects.
CHAPTER FOUR
RESULTS

Preliminary Analyses.

Descriptive statistics and correlations of variables were analyzed at all time points and are listed in Table 1.

Moderated Serial Mediation Analyses.

PROCESS macro software for SPSS (Hayes, 2018; mediational model number 85) was used to test serial mediation of PTSS and JDB with gender as a moderator in the following associations. Baseline and Time 2 outcomes were controlled respectively in the longitudinal analyses. Bootstrapping procedures in SPSS (n=10,000 bias corrected samples, Hayes 2018) was used to test these associations.

Objective 1 Examining Aggregate PTSS. First, aggregate PTSS scores and JDB were examined as a mediator of the association between ECV at Time 1 and Time 3. Gender was assessed as a moderator. Both victimization and witnessing models were assessed separately.

Victimization of Exposure to Community Violence. For all the victimization models, analyses showed no significant predictions between any of the paths for ECV-victimization at Time 1, aggregate PTSS or PTSS subscales at Time 2, JDB at Time 3 and ECV-victimization at Time 3 for the whole sample. Results revealed that gender was not a significant moderator in any of these analyses.

Witnessing of Exposure to Community Violence. For all the witnessing models, JDB at
Time 3 significantly predicted ECV-witnessing at Time 3. There were no other significant paths for the whole sample. Gender moderated several paths. ECV-witnessing at Time 1 significantly interacted with gender to predict PTSS at Time 2. For girls ($p = 0.0093, 95\% \text{ CI} [0.0063, 0.0439]$), more witnessing violence in one’s community led to more PTSS. Additionally, ECV-witnessing at Time 1 interacted with gender to predict JDB at Time 3. Among girls ($p = 0.0064, 95\% \text{ CI} [0.1907, 1.1461]$) an increase in exposure to witnessing community violence at Time 1 led to more juvenile delinquent behavior at Time 3. Lastly, JDB at Time 3 significantly predicted ECV-witnessing at Time 3 ($p = 0.0007, 95\% \text{ CI} [0.0628, .2294]$) (Figure 3.). Analyses showed no direct effect between ECV-witnessing at Time 1 and Time 3. Results revealed that there was also no significant association between PTSS and JDB.

**Objective 2 Examining Subscales of PTSS.** Second, subscale scores of PTSS and JDB were examined as a mediator of the association between ECV at Time 1 and Time 3. Gender was assessed as a moderator. Both victimization and witnessing models were assessed.

**Victimization of Exposure to Community Violence.** Similar to the previous findings, for the victimization models, analyses showed no significant predictions between any of the paths for ECV-victimization at Time 1, any of the five subscales of PTSS at Time 2, JDB at Time 3 and ECV-victimization at Time 3 for the whole sample. Results revealed that gender was not a significant moderator in any of these analyses.

**Witnessing of Exposure to Community Violence.** When the five different subscales for the witnessing models were examined, no significant findings for any of the subscales emerged for the whole sample. *Two subscales interacted with gender.* ECV-witnessing at Time 1 significantly interacted with gender to predict *hyperarousal* at Time 2 (Figure 4.). For girls ($p = 0.0177, 95\% \text{ CI} [0.0043, 0.0446]$), more exposure to witnessing community violence led to
increased hyperarousal symptoms. ECV-witnessing at Time 1 also interacted with gender to predict intrusion at Time 2 (Figure 5.). For girls ($p= 0.0074$, 95% CI [0.0080, 0.0506]), more exposure to witnessing community violence led to increased intrusion symptoms. Similarly, JDB at Time 3 still significantly predicted ECV-witnessing at Time 3 for each of the models. Analyses showed no direct effect between ECV-witnessing at Time 1 and Time 3 among all participants. Results revealed that there was also no significant association between any of the five PTSS subscales and JDB.

Post Hoc Analyses

Given the significant moderation by gender, a subsample of girls was analyzed. For all the victimization models, JDB at Time 3 significantly predicted ECV at Time 3 ($p=0.0180$, 95% CI [0.0101, 0.1048]). There were no other significant paths for the victimization models. For the witnessing models, several significant associations emerged. Analyses showed that ECV-witnessing at Time 1 significantly predicted increases in PTSS aggregate ($p= 0.0147$, 95% CI [0.0052, 0.0461]), increases in hyperarousal ($p= 0.0158$, 95% CI [0.0052, 0.0487]) and increases in intrusion ($p= 0.0158$, 95% CI [0.0056, 0.0528]) at Time 2. Increased PTSS–hyperarousal at Time 2 significantly predicted decreased ECV-witnessing at Time 3 ($p= 0.0412$, 95% CI [-5.1017, -0.1069]). Among girls, ECV-witnessing at Time 1 significantly predicted JDB at Time 3 ($p= 0.0003$, 95% CI [0.3926, 1.2849]), and JDB at Time 3 significantly predicted ECV-witnessing at Time 3 ($p= 0.0030$, 95% CI [0.0691, 0.3272]). In addition, the following trending analyses emerged among the girls. For the avoidance model, there was a trending effect between ECV-witnessing at Time 1 and PTSS-avoidance at Time 2 ($p= 0.089$, 95% CI [-0.0050, 0.0691]) For the intrusion model, there was a trending effect between PTSS-intrusion at Time 2 and JDB at Time 3 ($p= 0.056$, 95% CI [-7.5214, .1041]).
CHAPTER FIVE
DISCUSSION

The overarching goal of this study was to understand the effects of youths’ exposure to community violence on specific posttraumatic stress symptoms one year later, juvenile delinquent behavior two years later, and additional exposure to violence two years later. As was hypothesized, for the whole sample, juvenile delinquent behavior predicted increased exposure to witnessing violence. However, inconsistent with what was predicted for gender, witnessing predicted aggregate posttraumatic stress symptoms for girls only. Additionally, for girls only, the more witnessing of violence in one’s community predicted to more hyperarousal and more intrusion symptoms. Lastly, exposure to violence via witnessing predicted to juvenile delinquent behavior for girls only. In contrast to what was expected, no significant findings emerged for victimization.

The finding that girls endorse posttraumatic stress symptoms more so than boys as an effect of witnessing violence is consistent with previous literature about trauma symptom manifestation after exposure to violence (Foster, Kuperminc & Price, 2004). In fact, most girls, living in urban areas, who witness community violence are likely to develop at least one or two Posttraumatic Stress Disorder qualifying symptoms (Lipschitz, Rasmusson, Anyan, Cromwell & Southwick, 2000). Witnessing can have a large impact on the development of trauma in individuals who have experienced prior distressing events and, thus, may facilitate increased recall and vivid memories potentially increasing the development of symptoms of arousal and
intrusion (Hackett, 2009).

In this study, girls experienced increased hyperarousal symptoms which may indicate that they are more irritable, more “alert” and may experience increased levels of arousal after witnessing violence. The post hoc analyses support this finding and also suggest that increased hyperarousal symptoms, in some ways, may make girls at less susceptible for more exposure to violence one year later. A majority of the literature on hyperarousal symptoms, specifically, as a direct result of community violence exposure is with boys (Rich & Grey, 2005; Smith & Patton, 2016) with little being understood about this relationship among girls. This study’s finding is an important contribution the preexisting literature as it suggests that for some girls, exposure to community violence may actually result in somewhat of an externalizing way.

For African-American boys, some studies have found that hyperarousal symptoms related to heightened awareness and hypervigilance (e.g., not “letting their guard down” that may temporarily help boys recognize threat of violence and, ultimately, protect them from future exposure (Smith & Patton, 2016; Gaylord-Harden et al., 2011). It is possible that for this study’s population, hyperarousal symptoms may function similarly for girls. With early adolescence, the emergence of gender-specific socialization occurs with the intention to help prepare young people for independence; some messages to early adolescent girls may include encouraging them to assert and protect themselves within contexts where they are at risk (Letendre, 2007). For this reason, it is possible that increases in hyperarousal symptoms may, too, provide young girls with the “guard” they need to ward off and defend themselves from future violence exposures. Therefore, having increased hyperarousal components may put girls at less risk for future exposure since they are overly “alert” or emotionally prepared to avoid future instances of violence.
Limited research has been done on intrusion symptoms as a result of exposure to witnessing community violence in any gender-specific populations. However, what is understood broadly is that witnessing other interpersonal violent situations (e.g., domestic violence, childhood physical abuse, childhood sexual abuse) can result in the development of intrusive symptoms (Griffing et al., 2006). For people that have experienced prior exposure to violence, intrusions that develop from these past instances can be used as a way to help identify future danger and threat because the individual has witnessed a similar violent experience in the past (Griffing et al., 2006). For girls, intrusive thoughts contribute to and intensify effects of stress which may result in more aggressive behaviors (Sontag, Graber, Brooks-Gunn & Warren, 2008). Additionally, gender-specific socialization practices shared with young adolescent girls stress the importance of physically protecting oneself and, thus, may contribute to the development of aggressive behaviors; this may be especially true and relevant for some girls who live in communities with high rates of violence (Letendre, 2007). For girls who witness various acts of violence in their communities, it is possible that intrusive thoughts persist and are reinforced as a result of repeatedly being taught to be careful and assertive in order to protect themselves. Girls may be more likely to resort to delinquent behavior as another means to prepare and possibly defend themselves in the future based on what they are constantly being reminded about in both their intrusive thoughts and the socialization messages.

The findings that juvenile delinquent behaviors predict to increased witnessing of community violence are consistent with the hypothesis for the whole sample. The post hoc analyses supplement these findings that for girls only, exposure to witnessing violence predicted to juvenile delinquent behavior and that juvenile delinquent behavior predicts to community violence exposure. The findings are consistent with the literature that suggests that exposure to
community violence increases one’s involvement in externalizing and delinquent behaviors and that involvement in such behaviors contribute to greater likelihood of future exposure to community violence (Esposito, Bacchini, Eisenberg, & Affuso, 2017; Mrug & Windle, 2009). For girls specifically, delinquent behavior in response to violence exposure may be a protection strategy for future exposure. Though traditionally maladaptive, girls may be resorting to these means as an attempt to model violent behaviors seen in their community as was previously found in the literature (Dusing et al., 2018; Orue et al., 2011; Guerra, Huesmann & Spindler, 2003; McMahon, Felix, Halpert & Petropoulos, 2009), with the intention to defend themselves from future attacks. What may not have been intended, however, was that this attempt at looking “tough” may actually be putting them at more risk for exposure with the conditions and locations where this violent behavior may tend to occur.

The lack of findings for victimization are discrepant with past literature and the projected hypotheses. These findings raise question about the timing of and the conditions in which trauma symptoms may develop after one is a victim of a violent act in their community. Additionally, the lack of findings for many of the trauma symptoms not having an effect on either juvenile delinquent behavior or future exposure to violence raises question about the role of trauma for this particular sample. These findings, though insignificant, indicate that that there may be some other psychosocial symptoms entirely that youth are experiencing when they are victims of violence that may make them more susceptible to violence later.

Taken together, these findings are consistent with the Reciprocal Stress Model in that the stressor of experience violence in one’s community does contribute to negative psychological outcomes, which can, then, subsequently put early adolescents in certain situations where they are at risk for more exposure. Both posttraumatic stress and juvenile delinquent behavior may
foster environments for youth that, essentially, put them at risk for more exposure to violence, thus solidifying the chronic process within this experience. For early adolescents living in low, income, urban neighborhoods, the reciprocal nature of this experience is even more so reinforced as their concurrent development of autonomy may also contribute increased risk with youth being in the community more often, unsupervised and attempting to process and respond to situations independently.

Limitations.

Furthermore, there are limitations of the current study. One logistical limitation of this study is that the sample size is small; this impacts the study in that it is underpowered. A larger sample size would be beneficial to more effectively determine significance across all paths in the model and to establish a medium to large effect size to find a mediated effect (Fritz & McKinnon, 2007). Nevertheless, the findings of this study indicate that there were some effects present in this sample despite the fact that there were no indirect or direct effects. Due to the nature of the sample consisting of community-based populations, the effects of this study thus far can be generalizable and, ultimately, function as an exploratory pilot attempt for future researchers to examine with a larger sample size.

The structures of both the model and the measures is also a limitation. Given the nature of this model, the findings represent change over time as opposed to one’s experiences at a particular time period. For instance, in this study the model examined exposure to violence as a chronic experience by controlling for the possibility of confounding experiences based on previous time points and, therefore, captured change in youth’s experiences overtime as opposed to a concurrent experience that allows for the influence of other past experiences. Additionally, the use of self-report measures is a limitation because it lends the opportunity for developing
bias. Without the use of multiple reporters, it is difficult to verify the retrospective memory of young participants, thus, leading to the potential for inaccurate reporting and measurement error. Relatedly, exposure to violence for both witnessing and victimization at Time 1 was used to include only experiences within one’s community and screening out other types of exposure (e.g., family violence). This focus could potentially impact the participants’ total exposure scores and lead to a lack of stability in use of the measure over time. Participants were also asked about singular experiences of violence in a singular setting and by a singular perpetrator only as opposed to allowing participants to report multiple instances which may have prevented from a holistic assessment of their experiences and contributed to an underestimation of their overall experiences of exposure. However, there is strength in this study as the data was longitudinal and examined the trajectory of this relationship over the course of three years helping to better understand some temporal effects of the experience.

Lastly, one final limitation of the study is that the data was collected two decades ago. Consequently, the findings could potentially reflect outdated and inaccurate experiences of current African-American urban youth populations. Nonetheless, the impact of this study may still be relevant, and necessary as an analogous pattern may be seen in present day with comparable rates of community violence existing in similar areas of Chicago (Papachristos, Brazil & Cheng, 2018).

**Clinical Implications.**

All things considered, the study’s findings emphasize the clinical benefit of understanding posttraumatic stress symptoms as both a holistic experience and as a singular symptom experience. Examining clients’ traumatic experiences through this unique lens allows for a comprehensive assessment of and attention to their symptoms, preventing rule out of any
posttraumatic distress should a client not fully qualify for a Posttraumatic Stress Disorder diagnosis. In addition, these findings help clinicians understand the effects of exposure to violence via witnessing on posttraumatic symptom development in girls specifically. By identifying the development of posttraumatic stress symptoms at such a young age, clinicians can act timely and intervene to help youth process these experiences in the present and throughout future life stages (Lipschitz et al., 2000). The findings are also informative as they can help clinicians have perspective on risk at the individual-level and consider which symptoms young girls living in urban communities exposed to violence may be more prone to developing. These findings also help to inform and emphasize the importance of preventative work by administering effective early approaches for at-risk populations (e.g., cognitive behavioral therapy; Litz, Gray, Bryant & Adler, 2002) to help prevent the development of trauma symptoms as a result of witnessing violence exposure. In a similar manner, the findings that juvenile delinquent behavior predict witnessing community violence can help clinicians identify youth who are particularly at risk for more exposure via witnessing. This study helps to solidify the importance of clinicians working with youth to not only help process their experiences with violence exposure, but to serve as a source to help problem solve alternative and more adaptive ways for youth to process and cope with future exposure(s).

**Future Directions.**

Chronic conditions are often long-standing thus, they usually take a huge amount of effort to resolve. Chronic exposure to community violence is not irreparable if the factors that are causing it are known. This study’s findings help to further our understanding of the chronicity of violence exposure in urban youth populations by specifically focusing on key foundational components of this process that include (1) what psychological effects result from exposure to
violence and (2) what may contribute to more exposure to violence for these youth. Future studies can expand these findings by further examining in-depth mechanisms of this process in order to better understand what may contribute to the development of these experiences.

One potential area for future study would be to explore the timing of trauma symptom manifestation. The findings of this study contribute to the literature by further demonstrating that witnessing community violence can predict some posttraumatic stress symptoms one-year post exposure, as is consistent with previous literature (Deane et al., 2018). These findings emphasize the importance of additional research to further understand the time in which it takes other symptoms to manifest after exposure—both as a witness and victim—to a violent experience. Understanding the time in which it takes for these symptoms to occur is a pivotal point in the chronic exposure relationship and can help inform the timing of treatment.

Another area for future exploration would be to incorporate the impact of tertiary exposure to community violence. Tertiary exposure refers to learning of a violent event (i.e., death, harm, injury, etc.) that has happened to someone else (Buka et al., 2001). In present day, technology is a dominant force in the lives of young people. Many youth have reported exposure to distressing behavior occurring via social media (Sichel, Javdani, Ueberall & Liggett, 2019) as well as dissemination of knowledge regarding violence within urban contexts (Patton, Eschmann, Elsaesser & Bocanegra, 2016); this suggests that social media is a prominent source for violence exposure and, thus, mirrors a tertiary experience of exposure. With increased access to immediate communication, knowledge is seen much more often as content is quickly and widely shared. Examining the chronic effects of exposure to violence via social media and other technology platforms is imperative as it is applicable to the experience of today’s youth.

As a result of this study’s findings helping to explain the reciprocal nature of the chronic
exposure to violence experience, the opportunity to better understand the needs of the youth in these communities is brought to the forefront. Examining strategies intended to mitigate negative psychosocial symptoms and facilitate positive youth development is an important next research step. Some studies have suggested that implementing a coping socialization process via parenting coaching and modeling can be an important influence for young people who experience violence within their community (Kliewer et al., 2006). This sort of caregiver-child interaction may be a useful intervention technique that, through deeper conversation and reflection of these issues, may help buffer against the development of trauma symptoms in youth as well as help promote the development of adaptive coping mechanisms as opposed to externalizing behaviors. In addition to the short-term benefits of this intervention, there is also the potential for long-term benefits as it can initiate strategies that can hopefully be practiced and passed down to offspring who may experience similar stressors.

Conclusion.

This study helps to emphasize that exposure to community violence is an incredibly nuanced experience and can indeed be a chronic route for some early adolescents. The findings of this study help to identify prominent psychosocial problem areas in young people as a result of both being a witness and being a victim of community violence. Being mindful of the specific symptomology and behaviors of early adolescents based on gender who have experienced violence in the past can also help to tailor therapeutic attention and inform treatment. This study’s findings paired with future findings can help clinicians to understand the multidimensional components that exist as a result of violence exposure and the developmental considerations that may steer early adolescents’ paths during these exposures as well as hopefully, bring greater awareness and support to communities in need.
Table 1. Means, Standard Deviations, and Correlations of Variables.

<table>
<thead>
<tr>
<th></th>
<th>Mean (SD)</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Gender (T1)</td>
<td>1.60 (.49)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. ECV- Victimization (T1)</td>
<td>1.42 (3.41)</td>
<td>-.06</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. ECV- Witnessing (T1)</td>
<td>3.36 (4.70)</td>
<td>-.05</td>
<td>.64**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. PTSS (Aggregate) (T2)</td>
<td>.29 (.36)</td>
<td>.14</td>
<td>.03</td>
<td>.18*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Avoidance (T2)</td>
<td>.50 (.68)</td>
<td>.14</td>
<td>-.02</td>
<td>.16*</td>
<td>.76**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Numbing (T2)</td>
<td>.26 (.36)</td>
<td>.11</td>
<td>.06</td>
<td>.11</td>
<td>.82**</td>
<td>.56**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Hyperarousal (T2)</td>
<td>.32 (.39)</td>
<td>.19*</td>
<td>.03</td>
<td>.14</td>
<td>.88**</td>
<td>.63**</td>
<td>.64**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Intrusion (T2)</td>
<td>.24 (.40)</td>
<td>.12</td>
<td>.03</td>
<td>.15</td>
<td>.93**</td>
<td>.65**</td>
<td>.70**</td>
<td>.84**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Dissociation (T2)</td>
<td>.29 (.47)</td>
<td>.06</td>
<td>-.01</td>
<td>.16*</td>
<td>.80**</td>
<td>.52**</td>
<td>.61**</td>
<td>.58**</td>
<td>.67**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. JDB (T3)</td>
<td>6.83 (9.41)</td>
<td>-.08</td>
<td>.12</td>
<td>.21**</td>
<td>.15</td>
<td>.02</td>
<td>.18**</td>
<td>.10</td>
<td>.15*</td>
<td>.13</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. ECV-Victimization (T3)</td>
<td>.81 (1.84)</td>
<td>.00</td>
<td>.003</td>
<td>.07</td>
<td>-.03</td>
<td>-.03</td>
<td>-.05</td>
<td>-.02</td>
<td>-.04</td>
<td>-.02</td>
<td>.20**</td>
<td></td>
</tr>
<tr>
<td>12. ECV-Witnessing (T3)</td>
<td>2.61 (4.10)</td>
<td>.13</td>
<td>-.01</td>
<td>.13</td>
<td>.06</td>
<td>.17*</td>
<td>-.009</td>
<td>.02</td>
<td>.03</td>
<td>.07</td>
<td>.31**</td>
<td>.44**</td>
</tr>
</tbody>
</table>

*p<0.05, **p<0.01
Figure 1. Objective 1: Statistical Model

PTSS (T2) (AGGREGATE) → JDB (T3)

GENDER

ECV (T1) (WITNESSING/VICTIMIZATION)

ECV (T3) (WITNESSING/VICTIMIZATION)
Figure 2. Objective 2: Conceptual Model

- DISSOCIATION (T2)
- INTRUSION (T2)
- NUMBING (T2)
- AVOIDANCE (T2)
- HYPERAROUSAL (T2)

- GENDER

- ECV (T1) (WITNESSING/VICTIMIZATION)

- JDB (T3)

- ECV (T3) (WITNESSING/VICTIMIZATION)
Figure 3. Objective 1: Hypothesis 1b. ECV (Witnessing) $\rightarrow$ PTSS (Aggregate); ECV (Witnessing) $\rightarrow$ JDB; JDB $\rightarrow$ ECV (Witnessing)

$p<0.05$, $**p<0.01$; $\rightarrow$ = significant for females only; $\rightarrow$ = significant for whole sample
Figure 4. Objective 2: Hypothesis 2h. ECV (Witnessing) → PTSS (Hyperarousal); ECV (Witnessing) → JDB; JDB → ECV (Witnessing)

Gender

ECV (T1) (Witnessing)

b = 0.027*

b = 0.652*

Hyperarousal (T2)

JDB (T3)

b = 0.149**

ECV (T3) (Witnessing)

*p < 0.05, **p < 0.01; black = significant for females only; black = significant for whole sample
Figure 5. Objective 2: Hypothesis 2i. ECV (Witnessing) \( \rightarrow \) PTSS (Intrusion); ECV (Witnessing) \( \rightarrow \) JDB; JDB \( \rightarrow \) ECV (Witnessing)

\[ b = 0.665^* \]
\[ b = 0.031^* \]
\[ b = 1.46^** \]

\( ^*p < 0.05, ^{**}p < 0.01 \);
\[ \text{solid arrow} = \text{significant for females only} \]
\[ \text{dashed arrow} = \text{significant for whole sample} \]
Figure 6. Post Hoc Analyses. Subsample: Girls Only: ECV (Witnessing) → PTSS (Hyperarousal); ECV (Witnessing) → JDB; PTSS (Hyperarousal) → ECV (Witnessing); JDB → ECV (Witnessing)

ECV (T1) (WITNESSING) → HYPERAROUSAL (T2)

HYPERAROUSAL (T2) → JDB (T3)

JDB (T3) → ECV (T3) (WITNESSING)

ECV (T1) (WITNESSING) → ECV (T3) (WITNESSING)

b = 0.027*
b = 0.841**
b = -2.60*
b = 1.92**

*p < 0.05, **p < 0.01; = significant
Figure 7. Post Hoc Analyses. Subsample: Girls Only: ECV (Witnessing) → PTSS (Intrusion); ECV (Witnessing) → JDB; PTSS (Intrusion) → JDB (Trending); JDB → ECV (Witnessing)
Figure 8. Post Hoc Analyses. Subsample: Girls Only: ECV (Witnessing) → PTSS (Avoidance) (Trending); ECV (Witnessing) → JDB; JDB → ECV (Witnessing)

AVOIDANCE (T2) → JDB (T3)

ECV (T1) (WITNESSING) → ECV (T3) (WITNESSING)

*p<0.05, **p<0.01; = trending ; = significant
Figure 9. Post Hoc Analyses. Subsample: Girls Only: JDB → ECV (Victimization)
APPENDIX A

EXPOSURE TO VIOLENCE-REVISED (EV-R)
```
EV-R

1. Have you heard or seen a fight that made you feel afraid?
   How old were you?________
   Who did it happen to?________
   Where?________

2. Have you been at home when someone has broken into or tried to force their way into your home or apartment?
   How old were you?________
   Who did it?________

3. Have you seen someone carrying a gun outside of school (not police)?
   How old were you?________
   Where?________
   Who did it?________

4. Have you known anyone who brought a knife or gun to school (not police)?
   How old were you?________
   Who did it?________

5. Have you seen someone else get chased by someone who wanted to hurt them?
   How old were you?________
   Who did it happen to?
   Where?________
```
Have you been chased by someone who wanted to hurt you?
How old were you? ___________________________
Where? ___________________________
Who did it? ___________________________

7. Have you seen someone else being hit, kicked or beat up?
How old were you? ___________________________
Who did it happen to? ___________________________
Who did it? ___________________________
Where? ___________________________

8. Have you been hit, kicked, or beat up by someone?
How old were you? ___________________________
Where? ___________________________
Who did it? ___________________________

9. Have you seen someone being attacked with something other than a gun or knife (for example: a rock, brick, baseball bat)?
How old were you? ___________________________
Who did it happen to? ___________________________
Who did it? ___________________________
Where? ___________________________

10. Have you been attacked by someone with something other than a gun or knife (for example: a rock, brick, baseball bat)?
How old were you? ___________________________
Where? ___________________________
Who did it? ___________________________

11. Have you seen someone getting mugged/stuck up?
How old were you? ___________________________
Who did it happen to? ___________________________
Who did it? ___________________________
Here? ___________________________

12. Have you been mugged/stuck up?
How old were you? ___________________________
Here? ___________________________

<table>
<thead>
<tr>
<th>Never</th>
<th>Once</th>
<th>Twice</th>
<th>Three times</th>
<th>Four or more</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
Have you seen someone being stabbed with a knife?

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Once</th>
<th>Twice</th>
<th>Three times</th>
<th>Four or more</th>
</tr>
</thead>
<tbody>
<tr>
<td>How old were you?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Who did it happen to?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Who did it?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Where?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

14. Have you been stabbed with a knife?

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Once</th>
<th>Twice</th>
<th>Three times</th>
<th>Four or more</th>
</tr>
</thead>
<tbody>
<tr>
<td>How old were you?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Where?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Who did it?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

15. Have you been jumped into (initiated) into a gang?

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Once</th>
<th>Twice</th>
<th>Three times</th>
<th>Four or more</th>
</tr>
</thead>
<tbody>
<tr>
<td>How old were you?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Where?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

16. Have you seen someone get jumped into a gang?

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Once</th>
<th>Twice</th>
<th>Three times</th>
<th>Four or more</th>
</tr>
</thead>
<tbody>
<tr>
<td>How old were you?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Who did it happen to?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Where?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

17. Have you seen someone get shot with a gun?

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Once</th>
<th>Twice</th>
<th>Three times</th>
<th>Four or more</th>
</tr>
</thead>
<tbody>
<tr>
<td>How old were you?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Who did it happen to?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Who did it?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Where?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

18. Have you been shot with a gun?

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Once</th>
<th>Twice</th>
<th>Three times</th>
<th>Four or more</th>
</tr>
</thead>
<tbody>
<tr>
<td>How old were you?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Where?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Who did it?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

19. Have you taken cover after hearing gun shots?

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Once</th>
<th>Twice</th>
<th>Three times</th>
<th>Four or more</th>
</tr>
</thead>
<tbody>
<tr>
<td>How old were you?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Where?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Who did it?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
21. Have you seen someone being killed by another person?

<table>
<thead>
<tr>
<th>Never</th>
<th>Once</th>
<th>Twice</th>
<th>Three times</th>
<th>Four or more</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

22. Have you seen someone being sexually molested or raped?

<table>
<thead>
<tr>
<th>Never</th>
<th>Once</th>
<th>Twice</th>
<th>Three times</th>
<th>Four or more</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

23. Have you been sexually molested or raped?

<table>
<thead>
<tr>
<th>Never</th>
<th>Once</th>
<th>Twice</th>
<th>Three times</th>
<th>Four or more</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

24. Has someone threatened to beat you up?

<table>
<thead>
<tr>
<th>Never</th>
<th>Once</th>
<th>Twice</th>
<th>Three times</th>
<th>Four or more</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

25. Have you been threatened with a knife or a gun?

<table>
<thead>
<tr>
<th>Never</th>
<th>Once</th>
<th>Twice</th>
<th>Three times</th>
<th>Four or more</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>
APPENDIX B

TRAUMA SYMPTOM QUESTIONNAIRE (TSQ)
Daily TSQ

Tell us how true each of these statements has been for you today.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Not true at all</th>
<th>A little true</th>
<th>Pretty true</th>
<th>Very true</th>
</tr>
</thead>
<tbody>
<tr>
<td>Didn't care about the things I used to care about</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Unable to feel upset (mad, sad, or scared) even when bad things happened</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Unable to laugh or feel happy, even when something really good or funny happened</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Felt that I might not live very long</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Felt that my life might not be very happy</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Tried very hard not to think about something bad or scary that happened to me or someone else</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Either did not or tried not to go to places that reminded me of something scary or bad that happened to me or someone else</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Went away in my mind, tried not to think</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Felt like things weren’t real</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Felt like I was not in my body</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Pretended I was somewhere else</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>My mind went empty or blank</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Last night I had bad dreams or nightmares about something scary that happened</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>I got really scared, mad, upset or in a very bad mood</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>I watched things around me really closely so nothing bad would happen</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>I felt really jumpy or scared when I heard loud noises or when someone came up behind me</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>I had trouble paying attention</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>I worried about being safe</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>I remembered something scary even when I didn’t want to</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Something happened today that reminded me of something scary that happened in the past</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>I felt like something scary was happening all over again</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>The scary thing seemed so real that I could actually see pictures of it in my mind</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>When I was reminded of the scary thing that happened, my heart beat faster, my stomach hurt, or my head hurt</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>I had trouble sleeping last night</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Things bothered me or made me mad or scared, even though they didn’t seem to bother others</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

If you circled 1, 2, or 3 for a sentence about a scary or bad thing that happened, please tell us what the scary or bad thing was ___________________________________________________________
APPENDIX C

JUVENILE DELINQUENCY SCALE- SELF REPORT (JDS-SR)
Please write 0, 1, 2, 3, 4, or 5 to let us know which of these statements are true for YOU. No one, not even your parents or the people at your school, will be allowed to see what you write here. Please be totally honest. There are no right or wrong answers.

<table>
<thead>
<tr>
<th></th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. I have skipped school or classes without permission from a parent or a teacher.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. I have attacked someone with a weapon in order to hurt or kill them.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. I have purposefully damaged or destroyed property that was not mine (e.g. spray painting, breaking windows, or marking on walls.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. I have used a weapon to rob someone.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. I have stolen (or tried to steal) a bike, a car, or a motorcycle.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. I have smoked cigarettes or cigars.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. I have used marijuana or other drugs.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. I have sold marijuana or other drugs.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. I have carried a weapon.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. I have been to court for something that I did.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. I have run from the police.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. I have taken something from a store without paying for it.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. I have forcibly taken a purse or wallet from someone without using a weapon.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. I have bought, sold, or kept something that I knew was stolen.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. I have gotten drunk on beer, wine, or liquor.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16. I have hit, kicked, or thrown things at someone in my family in order to hurt them.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17. I have been involved in a gang fight or have participated in jumping someone.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18. I have hit, kicked, or thrown things at someone that was not in my family in order to hurt them.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19. I have used force or the threat of force on someone in order to have sexual contact with them.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20. I have been arrested by the police.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21. I have run away from home and stayed away over night.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22. I have purposely set fire to a house, building, car, or vacant lot.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23. I have stolen something of value like a purse or wallet from someone.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
REFERENCE LIST


Patton, D. U., Eschmann, R. D., Elsaesser, C., & Bocanegra, E. (2016). Sticks, stones and Facebook accounts: What violence outreach workers know about social media and urban-


VITA

Kaleigh V. Wilkins was born and raised in the south suburbs of Chicago, Illinois. Ms. Wilkins attended the University of Illinois at Urbana-Champaign, where she earned a Bachelor of Science in Psychology, with Highest Distinction, and a double minor in Spanish and Interdisciplinary African-American Studies in 2018. Currently, Ms. Wilkins is a third year doctoral student in Loyola University Chicago’s Clinical Psychology Ph.D. Program.