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The Relationship Between Adverse Childhood Experiences and Juvenile Offender Typology

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The Relationship Between Adverse Childhood Experiences
and Juvenile Offender Typology

by

Aliza Beth Lipman

A thesis submitted in partial fulfillment of the
requirements for the degree of

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in
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Portland State University
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Abstract

Approximately 1 in 5 girls and in 20 boys in the United States are victims of child sexual assault every year (Finklehor, 2014). Child sexual assault can lead to multiple negative short term and long-term impacts affecting general health, mental health, interpersonal relationships, socio-economic status, criminal behavior and more (Banyard et al., 2000; Davis & Petretic-Jackson, 2000; Gray & Rarick, 2018; Heim et al., 2010; Letourneau et al., 2018; Turner et al., 2017). Prevention research focuses on a thorough understanding of the perpetrators of assault and the context surrounding offenses in order to reduce and prevent assault (Craig et al., 2020; Finklehor & Browne, 1985; Ozkan et al., 2019; Puskiewicz & Stinson, 2019; Ward & Beech, 2006). Within this research, juvenile offenders are perceived as a single homogenous group whereas adult offenders are consistently specified based on offender and offense characteristics (Calley, 2012; Ford & Linney, 1995; Jacobs et al., 1997). The exploration of the relationship between juvenile offenders' Adverse Childhood Experiences (ACEs) and the characteristics of juvenile sexual offense can impact the research, practice and policy meant to prevent future assault from occurring (Baglivio et al., 2014; Baglivio et al., 2015; Barra et al., 2018). This study investigated the relationship between ACEs and juvenile offender typology, non-sexual offence and sexual offense, using data collected from The Oregon Youth Authority. The study was conducted using a modified version of the ACEs measure that includes four community level ACEs items. Prominent findings included that, juvenile sexual offenders were more likely to have experienced emotional abuse, emotional neglect, and peer rejection while juvenile nonsexual offenders were more

likely to experience divorce, criminal institutionalization of a family member, and community violence.

Table of Contents

ABSTRACT	i
LIST OF TABLES	v
CHAPTER 1: INTRODUCTION.....	1
CHAPTER 2: CHILD SEXUAL ABUSE.....	5
Prevalence.	5
Child Sexual Abuse Outcomes.....	8
Perpetrators of CSA.....	10
CHAPTER 3: ADVERSE CHILDHOOD EXPERIENCES (ACES).....	12
What are ACEs?	12
Significance of the ACEs Measure.....	13
ACEs Prevalence in Youth Samples.....	14
Flaws in ACEs Measure’s Application.....	15
ACEs Sub-Categories.....	16
Physical Abuse.	16
Emotional Abuse/Neglect.....	18
Household Dysfunction.....	20
Ecological Understanding of Trauma	21
Children’s Lives Outside the Home.....	22
Finklehor’s ACEs Variation.	23
Negative Outcomes Associated with Trauma Outside the Home.	24
CHAPTER 4: SEXUAL OFFENDING.....	26
Sex Crimes Defined by the State of Oregon	26
Juvenile Detention.....	27
Sexual Offenders.....	29
Adult Sexual Offenders.....	29
Juvenile Sexual Offenders.....	30
Recidivism.....	32
CHAPTER 5: ACES & JUVENILE OFFENDING.....	34
Victim Offender Overlap.....	34
ACES & Juvenile Offenders.....	36
ACES & Juvenile Sexual Offenders.	36
CHAPTER 6: CURRENT STUDY	38

Critique of the Literature	38
Purpose of this Study	39
Research Questions.....	39
Methods.....	42
Sample.	42
Measures.	43
Data Collection.....	45
Results.	46
Missing Data.	47
Group Differences.	47
Power.	47
Research Question One:	48
Research Question Two:	48
Research Question Three:	49
Discussion	50
ACEs Quantity.....	50
ACEs Quality.	51
Community ACEs Variables.	53
Study Implications.	54
Study Limitations.....	56
Future directions.....	57
TABLES	59
REFERENCES.....	61
APPENDIX A: ACES MEASURE USED IN PRESENT STUDY	77
APPENDIX B: LIST OF MEASURES FROM DATA COLLECTION.....	79

List of Tables

Table 1: ACEs variables included in present study	59
Table 2: Logistic regression findings RQ2.....	60
Table 3: Logistic regression findings RQ3.....	60

Chapter 1: Introduction

Prevention research focuses on understanding the pathways to negative outcomes looking for points of prevention through three types of theoretical lenses, which each have different goals and aims in understanding preventing trauma (Kaufman, 2010). The etiological theoretical perspective uncovers personal and individual factors related to committing abusive behaviors that could be used to identify individuals with the propensity to perpetrate abuse (Finklehor & Browne, 1985; Kaufman, 2010; Ward & Beech, 2006). Problem maintenance theories investigate how and why abuse continues once started by examining perpetrator and survivor behaviors and attitudes that contribute to continued abuse (Barter, 2006; Iconis, 2008; Kaufman, 2010). Theories of change investigate the mechanisms that contribute to abuse with the goal of intervening to prevent abuse from occurring (Clarke, 1995; DiClemente, 2007; Kaufman, 2010).

Within sexual abuse prevention research, there are three primary means of change: interventions that focus on the targets/survivors of assault, interventions that focus on the behavioral/contextual factors of assault and interventions focusing on the potential perpetrators/ offenders of sexual assault. Interventions that focus on the targets of assault place the culpability on victims who, most times, have done nothing to facilitate or prompt assault. While historically these methods were the most prominent, modern prevention efforts focus on contextual and perpetrator intervention.

The public health approach to violence prevention model, developed by the CDC, encourages the identification and resolution of risks linked to the perpetration of violence including sexual assault (CDC, 2021). The CDC's four-step model is used to 1) Define and Monitor the Problem, 2) Identify Risk and Protective Factors, 3) Develop and Test

Prevention Strategies and 4) Assure Widespread adoption. In practice, this model first involves descriptive data collection to get a holistic and contextual understanding of the violence occurring. Once there is a clear definition of the problem, risk factors (e.g., components that increase the likelihood of violence) and protective factors (e.g., components that decrease the likelihood of violence) that already exist for individuals and within the greater system can be identified. Next the information from steps 1 and 2 are combined with findings from the literature to create evidence-based and contextually based prevention strategies that are concurrently evaluated for effectiveness. The final step is broad dissemination of the strategies and any accompanying programming or intervention.

One means of preventing sexual abuse from occurring involves decreasing the number of perpetrators in a given community. This is accomplished by understanding individual and contextual factors related to the etiology of sexual violence perpetration. Researching childhood trauma is one method of understanding perpetrators and the historical and contextual factors that could be associated with the choice to engage in abusive behavior (Craig et al., 2020; Ozkan et al., 2019; Puskiewicz & Stinson, 2019). Exposure to adverse childhood experiences such as abuse, neglect, and household dysfunction, is associated with negative outcomes including increases in criminal behavior (e.g., perpetrating child sexual abuse and other forms of sexual violence; Baglivio et al., 2014; Baglivio et al., 2015; Barra et al., 2018). Understanding abuse provides insights into the contextual experiences that contribute to offending and assault. This knowledge can be used to advocate for increased prevention and early intervention efforts. A broad focus on childhood trauma, under the assumption that a decrease in

childhood trauma experiences can decrease the number of future offenders, can be quite effective.

Juvenile sexual offenders' (JSO) have an incredibly high prevalence of traumatic childhood experiences when compared to a general sample with the majority having experienced four or more adverse childhood experiences in their lifetimes (Graf et al., 2021). Within the general population, 57.8% of people have experienced more than 1 ACE with the percentage declining to 21.5% when looking at 3 or more ACEs (Giano et al., 2020). That said, it is important to not only understand the impact of the quantity of adverse experiences, but also the qualitative impact of those experiences as well as how they may differ across various types of juvenile offenders (JO). A more nuanced understanding of whether childhood trauma may be related to offending behavior could impact both the prevention and treatment of sexual violence perpetration in JSOs.

Trauma research has primarily focused on adverse experiences that happen in the home or in the primary family unit. This makes sense given the foundational nature of the family for a child. Tools such as the Adverse Childhood Experiences (ACEs) measure asks children about abuse (i.e., physical, emotional, and sexual), neglect, and household dysfunctions (CDC, 2019). At the same time, however, children also spend on average, 40 hours per week outside the home and outside the immediate family (U.S. Department of Education, 2008). Current literature that investigates JOs and JSOs focuses solely on trauma in the home and has neglected youths' experiences out of the home (Barra, et al., 2017; Caputo, Frick, & Brodsky, 1996; Levenson, Willis & Prescott, 2015). This is critically important given that adverse experiences outside of the home such as peer rejection, bullying, and community violence can lead to negative outcomes including

aggressive behavior, suicidal ideology, poor physical health and delinquent behavior (Copeland et al., 2013; Godleski et al., 2015; Vergara et al., 2019).

This study will investigate JO characteristics (i.e., sexual offender, non-sexual offender) by examining the association between ACEs impact quality and juvenile offense typology by examining the quantity of ACEs exposure and the types of ACEs experienced. This study will also examine the associations between exposure to community level trauma experiences and offender typology.

Chapter 2: Child Sexual Abuse

This chapter will discuss the prevalence of child sexual abuse, long- and short-term outcomes associated with child sexual abuse, and what is known about perpetrators of child sexual abuse.

Prevalence.

This section will discuss the prevalence of child sexual abuse (CSA) and will break down prevalence based on multiple victim characteristics including, but not limited to, age, race, gender, and sexual orientation. Approximately 1 in 5 girls and 1 in 20 boys in the United States are victims of child sexual assault (Finklehor, 2014). Internationally, prevalence of CSA is approximately 11.8% (i.e., .4% from informant studies, 12.7% from self-report studies; Stoltenborgh et al., 2011). An international meta-analysis of CSA prevalence indicates that approximately 15% of girls and 8% of boys have experienced some form of CSA in their childhood (Barth et al., 2013). Along with gender, age also plays an important role in the prevalence of CSA. Young children, under the age of 10, are more likely to be victimized by an adult perpetrator while older children, over the age of 14, are more likely to be victimized by peers (Gerwitz-Meydan & Finklehor, 2019). Looking at CSA by race also shows a discrepancy in prevalence between youth of color and white youth. The U.S. Department of Justice found, based on a 1995 survey, that many youth of color experience higher rates of sexual assault than white youth. Reported prevalence of CSA for white youth is 6.7%, 13.1% for Black youth, 10% for Hispanic youth, and 15.7% for Native youth (Kilpatrick et al., 2003).

It is also important to examine CSA prevalence through an intersectional lens that considers gender, race/ethnicity, and sexuality. Black women¹, in particular, are socio-culturally perceived and societally conditioned to be hyper-sexualized compared to their white peers (Anderson et al., 2018; Cheeseborough et al., 2020). Black girls, even as young as preschool age, are perceived by a racially diverse group of adults as inherently sexual and desiring of sexual attention from peers, as well as adults (Epstein et al., 2017). Though few studies examine Black girls' experiences of sexual harassment and assault alone, current literature paints a picture in which as many as 80% of Black girls' experience some form of sexual harassment in school or online (Brinkman et al., 2021). Black boys are also misperceived as inherently sexual and naturally lustful by, predominantly, white adults including school teachers (Lindlsey et al., 2019). Young Asian women and girls have also been historically over-sexualized throughout U.S. history through colonizing forces (Cheng & Kim, 2018). Asian American women are, to this day, sexually stereotyped as either sexually dominant and mysterious or sexually naïve and submissive in the American mass media (Cheng & Kim, 2018). These common sexual and emotional stereotypes about Asian American women impact how Asian American girls are perceived. For example, a 2018 study finds that 66.7% of their sample

¹ While historically, the term African American has been used in academic writing when discussing Black people who live in the United States, recent movements have pushed for the use of the adjective Black when discussing Black people from multiple national and ethnic groups (APA, 2019). Terminology like African American should only be used when writing specifically about individuals who identify as African American (NABJ, 2020).

of Asian American women had experienced at least one instance of sexual harassment in the last year, of which 64.3% having experienced unwanted sexual attention and 24.8% reported experiencing sexual coercion (Buchanan et al., 2018).

Another intersectional lens that must be explored when discussing CSA is youth gender identity and expression, and sexuality. Youth who identify as LGBTQA+ are on average 3.8 times more likely to experience sexual abuse than cisgender heterosexual youth (Friedman et al., 2011). Transgender youth are twice as likely to experience CSA when compared to their cisgendered peers (Thoma et al., 2021). Incongruent with previous literature, youth who were assigned-female-at-birth report higher rates of sexual abuse, irrespective of their current gender identity, when compared to youth who were assigned-male-at-birth (Hlavka, 2017). On closer examination, studies into CSA prevalence for transgender and gender non-conforming youth found that 7% of transgender women, 21.1% of transgender men, 8.7% of non-binary male-assigned-at-birth, and 24.3% of non-binary female-assigned-at-birth young adults experience CSA before the age of 16 (Rimes et al., 2019). When asked about experiences with sexual objectification, a majority of transgender and non-binary adults find their experiences of being fetishized as negative (i.e., stressful, dehumanizing and invalidating), though a small portion do think of their experiences as positive due to feeling gratification related to being desired (Anzani et al., 2021). Trans people of color experience many of the prior forms of sexual objectification compounded by their intersecting identities. Findings from a 2020 study indicate that trans women of color experience boundary violations through objectification in private and public spaces via acts of sexual harassment and sexual violence (Ussher et al., 2020). The literature examining the sexual objectification

of LGBTQA+ individuals is not as well investigated, or as centralized, as research on other at-risk groups and requires further exploration.

Child Sexual Abuse Outcomes.

This section provides an overview of major findings regarding long- and short-term outcomes associated with a history of child sexual abuse. An interdisciplinary body of literature demonstrates the multitude of negative outcomes associated with childhood sexual abuse. Negative outcomes range from emotional and social to physical and economic. While there is a recent focus on long-term or lifelong impacts of childhood sexual abuse, especially with the proliferation of the ACEs measure, a majority of studies continue to examine immediate impacts of child sexual abuse on children and young adults.

Current research identifies multiple psychological outcomes associated with CSA. Men who have experienced CSA have a higher likelihood of depression, dysthymia, mania, mood and panic disorders, general anxiety disorder, post-traumatic stress disorder, substance abuse, suicidal ideation, and various personality disorders than men who have not experienced CSA (Turner et al., 2017). Adults diagnosed with major depression who have a history of CSA tend to have longer depressive episodes than those with no CSA history (Heim et al., 2010). Teenage boys who have experienced CSA are more likely to have issues with substance abuse and are less likely to experience suicidal ideation compared to teenage girls who have experienced CSA (Gray & Rarick, 2018). CSA has also been linked with a high likelihood of other co-occurring forms of abuse including emotional abuse, physical abuse, and exposure to intimate partner violence (Turner et al., 2017).

Individuals who experience sexual assault during childhood oftentimes experience interpersonal relationship issues later in life. There are multiple theories that explain how CSA impacts interpersonal functioning. At first, the connection between CSA and interpersonal functioning was explained through the lens of Post-Traumatic Stress Disorder (PTSD), despite the lack of empirical findings supporting this model. Multiple alternative models to PTSD were also created including Finkelhor and Brown's (1985) four traumagenic dynamics, Briere's (1992) cognitive conditioned and accommodation response, and Polusny and Follette's (1995) emotional avoidance model. In retrospective studies, adults who had experienced CSA as children were more likely to report marital problems and were more likely to marry someone with a drinking problem, than adults who had no prior history of CSA (Dube et al., 2005). A history of CSA has also been linked to problems with intimacy, and sexual functioning in adulthood (Davis & Petretic-Jackson, 2000). Further, studies find significant relationships between previous CSA and adult experiences of physical and emotional abuse in dating relationships (Banyard et al., 2000), as well as revictimization through sexual assault in adulthood (Maker et al., 2001). Finally, a prior history of CSA is consistently associated with relationship dissolution and divorce. This relationship between CSA and divorce is particularly strong in male survivors of CSA (MacIntosh & Menard, 2021).

Neurologically, CSA is associated with multiple physiological changes to the brain that can impact cognition and functioning and may manifest as a psychiatric disorder. Reduced hippocampal volume and associated PTSD are linked to a history of CSA (Heim et al., 2010), as well as increased risk of depression and anxiety associated with reduced serotonergic function found in adults who have experienced CSA

(Shrivastava et al., 2017). In women who have experienced CSA, dysregulation of the oxytocin system has been associated with increased likelihood of menstrually-related mood disorders as well as other stress related disorders (Crowley et al., 2016).

Economically, CSA can have an immense impact at the individual level and at the national level. The average lifetime cost per victim of CSA is \$282,734 for biologically female survivors and \$74,691 for biologically male survivors of CSA. These estimates include costs associated with medical treatment, productivity loss, loss through crime victimization, and costs related to suicide. Nationally in the United States, lifetime costs of fatal CSA totals approximately 23.6 million dollars, while non-fatal CSA totals over 9 billion dollars (Letourneau et al., 2018).

Perpetrators of CSA.

This final sub-section will discuss characteristics of child sexual abuse perpetrators including age, gender, and relationship to the victim. The “Stanger Danger” CSA stereotype continues to permeate the media and news outlets; however, sexual abuse is most commonly perpetrated by individuals who are known to the child (Finklehor, 1994; Cromer & Goldsmith, 2010). The most prevalent perpetrators of CSA are adults within the family’s “inner circle,” including friends, co-workers, and acquaintances of the victims’ parents (Halperin et al, 1996). Secondary perpetrators are typically relatives, particularly male relatives both biological and adoptive, and the abuse occurs within the family unit (Peter, 2009). Other familiar adult perpetrators include teachers, coaches, and religious figures (Christiansen & Darling, 2020; Bjørnseth & Szabo, 2018; Dale and Alpert, 2007; Gaedicke et al., 2021; Knoll, 2010). Strangers tend to be the least prevalent

type of CSA perpetrator, although they are more common with female victims as opposed to male victims (Halperin et al, 1996).

While the most common adult CSA perpetrators are male, there is a subset of female offenders, as well. Relatively less is known about this smaller group of CSA perpetrators. Historically, female abusers were estimated to compose approximately 5% of the perpetrators in CSA cases (Grayston & De Luca, 1999). However, a recent meta-analysis indicated that the 5% prevalence statistic should be considered a minimum, rather than an average (Augarde & Rydon-Grange, 2022). A national U.S. prevalence study suggests that CSA perpetration by females reflects approximately 20% of all reported cases, four-times higher than previous estimates (McLeod, 2015). Research also indicates that mothers are underestimated as perpetrators of CSA, especially when compared to findings on fathers as perpetrators of CSA. A 2021 study conducted by Gerke et al. found that mothers are identified as perpetrators by 0.5% of participants but were named as bystanders to CSA by 24.6% of participants.

The literature also indicates that youth also make up a relatively small proportion of all CSA perpetrators (Neupane et al., 2017). The most common victims of JSOs are peers or family members (i.e., same age or younger than the offender; Gunby & Woodhams, 2010). The JSO group and perpetration characteristics will be discussed further later in this paper.

Chapter 3: Adverse Childhood Experiences (ACEs)

This section will describe the Adverse Childhood Experiences (ACE) measure, its significance, prevalence of ACEs in youth samples, and discuss the measure's limitations.

What are ACEs?

Adverse Childhood Experiences (ACEs) are traumatic events experienced in childhood that have been shown to lead to immediate and long-term negative outcomes (CDC, 2019). Long term negative impacts include poor health outcomes, such as an increased risk of alcoholism, chronic disease, depression, and Post Traumatic Stress Disorder (PTSD; Chang et al. 2019). The original ACEs measure evaluates experiences of physical; emotional; and sexual abuse; emotional and physical neglect; and household challenges including violence against the mother, divorce, substance abuse, mental illness in the household, and incarceration for criminal behavior. The ACEs measure is structured as a dichotomous assessment device that identifies whether any of the ACEs were experienced by the respondent prior to their 18th birthday. The original ACEs study, conducted in 1998, found that 52% of participants had one or more ACEs and participants with an ACEs score of four or more had a higher likelihood of physical, behavioral, and psychological risks, than participants with an ACEs score of zero (Felitti et al., 1998). This initial study included adults who were primarily white, highly educated, and of a high socio-economic status. The second wave of this study recruited 7465 participants with similar demographics to the first study, but included items measuring neglect and divorce (Merrick et al., 2017). The majority of participants (77%) reported experiencing fewer than four ACEs. Still, this study found a higher-than-

expected prevalence for each ACEs category, with prevalence rates of over 20% for sexual abuse, physical abuse, household mental illness, household substance abuse and parental separation/divorce. Subsequent studies have gone on to examine the prevalence and outcomes of ACEs in youth samples.

Significance of the ACEs Measure.

This subsection discusses the proliferation of the ACEs measure, its importance in our current understanding of lifelong wellness, and its impact on the field.

Since its inception, the ACEs measure has been utilized across disciplines to better understand how early trauma can impact a wide variety of outcomes. Thousands of studies have examined the impact that ACEs have on human lives psychologically, socio-emotionally, socioeconomically, and physically. In the time from 1998 through 2018, 789 empirical articles in 351 academic journals have been written using or discussing the ACEs measure (Struck et al., 2021). In the world of physical health research, ACEs has become an important aspect of studies examining chronic health conditions including heart disease and diabetes, extreme injuries (including traumatic brain injuries, fractures and burns), as well as infectious diseases (e.g., HIV & STD's) and maternal health concerns such as unintended pregnancy, pregnancy complications and fetal death (CDC, 2019). High levels of ACEs exposure have been associated with increased risk of a multitude of serious and complex health conditions and health-related safety risks (Hughes et al., 2017). Research on chronic health conditions has found increased odds of obesity, diabetes, cancer, liver disease, respiratory disease, and cardiovascular disease in people who have higher than average levels of exposure to ACEs (Almuneef et al., 2014; Bellis et al., 2014a; Bellis et al., 2014b; Bellis et al., 2015). High ACEs scores are also

associated with increases in risky sexual behavior, teen pregnancy, sexual initiation before the age of 18, and sexually transmitted disease infection (Hughes et al., 2017).

In social science research, ACEs has been used to study poor mental health outcomes such as increased depression, anxiety, post-traumatic stress disorder, and suicidal ideation/suicide. ACEs has also become a key measure when studying access to education, income, and occupational opportunities. Current research on the relationship between ACEs and childhood socioeconomic position has identified significant associations between being in a low socioeconomic position and having an increased risk of ACEs exposure (Walsh et al., 2019). Another key discipline in which ACEs has made an impact is the study of high-risk behaviors. This includes research on substance use disorders such as disordered drinking or use of illicit substances, unsafe sexual practices, and participation in criminal activity. Youth who have a substance use disorder reported higher ACEs than average and a positive relationship between the number of ACEs and severity of the disorder was noted (Anda et al., 2016; Leza et al., 2021; Pirkola et al., 2005). Elevated ACEs scores are also found in youth involved with the juvenile justice system (Graf et al., 2021).

ACEs Prevalence in Youth Samples.

ACEs prevalence rates amongst school-aged children range from 41% to 97% when examining multiple ACEs in nationally representative samples (Carlson et al., 2020). In the majority of prevalence studies, rates are defined by a cut off score of four or more ACEs experienced. Historically, the most frequently reported ACEs experienced by children were economic hardship and guardian divorce or separation, at 22.5% prevalence and 21.9% prevalence respectively (Crouch et al., 2019).

Flaws in ACEs Measure's Application.

This subsection critiques the functionality and uses of the ACEs measure from its conception to current research. This section does not cover the breadth of all ACEs literature and instead aims to highlight key points.

It is important to note that many national surveys of youth's adverse experiences utilizing the ACEs measure have serious methodological flaws. For example, multiple nationwide surveys fail to include items specifically about physical, sexual, or emotional abuse and were self-reported by the child's parent or guardian (Crouch et al., 2019). As of 2020, eighteen studies have utilized nationally representative samples to estimate ACEs prevalence rates amongst U.S. youth. Of these studies, the majority investigated adolescent samples (i.e., typically 10-17 years old) and with only a handful of studies including participants between birth and early adolescence (Carlson et al., 2020).

While it is important to acknowledge the difficulty in completing national ACEs studies directed at youth, it is also critical to note the limitations of previous research and its implications for confidence in study findings. Namely, the choice to collect data solely from parents or guardians adds bias to findings that would not be as present if youth self-reported or social services data was included to triangulate findings. The choice to use parents as key informants has also prompted the removal of abuse items. Again, this skews the data when compared to studies which include all ACEs items. Additionally, meta-analyses of ACEs prevalence only include studies that use a single ACEs factor, as well as investigations in which other methodologies were used to conceptualize and measure "childhood trauma," which leads to an inconsistent definition of "ACEs prevalence" (Carlson et al., 2020).

ACEs Sub-Categories

The following section will briefly discuss the prevalence, characteristics, and outcomes associated with the ACEs factors of physical abuse, emotional abuse, neglect, and household dysfunction. Each sub-section will describe the prevalence rates, perpetrators, and outcomes associated with the ascribed ACEs factor.

In Felletti et al.'s 1998 study examining ACEs prevalence, emotional abuse (then called psychological abuse) was found to be present in 11.1% of participants, and physical abuse was noted in 10.8% of respondents. Household dysfunction was the most commonly experienced ACEs subcategory. Approximately 25% of participants experienced substance abuse, while 18% experienced mental illness in their home (Felletti, 1998). An additional 12% of participants witnessed domestic violence perpetrated against their mother, and 3.4% had a household family member go to prison (Felitti et al., 1998). It's important to note that while the neglect variable is currently included in the ACEs measure, it was not included in the initial ACEs studies. The following section more closely examines each of the ACEs sub-factors.

Physical Abuse.

The prevalence rate for child physical abuse in North America is approximately 24% and 17.7% worldwide (Stoltenborgh et al., 2013). Research in physical abuse perpetrator characteristics is varied, as multiple subgroups of perpetrators have been identified. Some studies demonstrate an association between perpetration of physical child abuse and previous childhood trauma exposure. Neurological and cognitive impairments are identified as primary risk factors for physical abuse in addition to

behavioral challenges such as social isolation and substance misuse (Milner & Chilamkurti, 1991). When examining parental risk factors for committing child physical abuse, the strongest relationships were found with individual risk factors such as parent hyperactivity and family level risk factors, such as family conflict and cohesion (Stith et al., 2009).

Negative outcomes associated with exposure to physical violence in childhood expands beyond the physical health and wellbeing of the child. Experiencing physical abuse in childhood is also associated with increased risk of physically and verbally victimizing others as an adult. A 2022 study finds that men who had experienced physical abuse as a child were nearly 4 times (3.98) more likely to behave aggressively and victimize others (Miller et al., 2022; Thompson et al., 2021). Further, the prevalence of non-violent criminal behavior has consistently been demonstrated as higher in samples of individuals who experienced childhood physical abuse (Malinosky-Rummell & Hansen, 1993). Childhood physical abuse in men is also associated with multiple mental health concerns in adulthood including depression, anger/irritability, intrusive experiences, dissociation, impaired self-reference, and tension reduction behavior (e.g., self-harm, drug misuse, impulsive spending or sexual behavior; Briere & Elliott, 2003), as well as having a lifetime history of at least one psychiatric disorder (Sugaya et al., 2012). Additionally, traumatic brain injuries incurred in youth due to physical abuse is associated with increased inappropriate sexual talk and an increase pedophilic interest after the age of 13 (Blasingame, 2018).

Emotional Abuse/Neglect.

Historically, both neglect and emotional abuse have been challenging to conceptualize and define consistently, making it difficult to draw clear conclusions across studies. Additionally, many studies find it difficult to consistently differentiate the concepts underlying childhood emotional abuse and childhood neglect. As a result, this section summarizes the overlapping literature on these areas together with regard to prevalence, perpetrators and outcomes of emotional abuse and neglect. A 2012 meta-analysis across 13 international independent samples reflect prevalence rates of 16.3% for child physical neglect and 18.4% for emotional neglect (Stoltenborgh et al., 2013). In the U.S., neglect makes up 58.4% of all child maltreatment cases (Tyler et al., 2006). Yet, out of all types of child maltreatment neglect is one of the most overlooked in the research literature (Stoltenborgh et al., 2013). Prevalence of self-reported child emotional abuse in North America range is estimated at 36.3% (Stoltenborgh et al., 2012), with an estimated rate of 11.7 per 10,000 children in the United States alone (Hamarman et al., 2002). Issues regarding emotional abuse conceptualization, definition, and boundaries vary across studies and are consistently noted as a limitation to prevalence and outcome research (Hamarman et al., 2002; Stoltenborgh et al., 2012). Specifically, the inconspicuous and inconsistent pattern of behavior associated with emotional abuse makes it more challenging to define and document than other forms of abuse (e.g., sexual abuse) which can be identified by a more clearly defined, unitary set of behaviors (Stoltenborgh et al., 2012).

Perpetrators of child neglect have been found to exhibit risk factors that include a history of unemployment, poverty, and a history of familial stress (Berry et al., 2003).

Mothers are more prominently identified as the primary perpetrator of child neglect (Damashek et al., 2013). The literature has also examined characteristics of mothers who neglect their children and identified higher rates of social isolation, mental illness, and substance abuse (Berry et al., 2003). Parent-child relationship-based risk factors such as parents' negative opinions on their children's behaviors have been identified as prominent in understanding the perpetration of child neglect when compared to risk factors stemming from the parents' behavior or family unit behaviors (Stith et al., 2009).

Exposure to emotional abuse and neglect can lead to multiple negative social, emotional, and developmental outcomes. The most prominent negative outcome associated with childhood neglect is the development of compromised or maladaptive attachment styles. Children who grew up in a neglectful household are more likely to develop a disorganized or disoriented attachment style in which they struggle with caregiver separation and reunion (Tyler et al., 2006). Maladaptive attachment styles can negatively impact an individual's ability to create and maintain future romantic and non-romantic relationships (Hildyard & Wolfe, 2002). At the same time, emotional abuse in childhood is found to be a strong predictor of relationship violence in adulthood (Berzenski & Yates, 2010). Additionally, emotional abuse and neglect are significantly associated with both internalizing and externalizing behavior problems as well as anxiety, depression, PTSD, psychosis, delinquency, and intimate partner violence which continues to be significant after 21 years of age (Mandelli et al., 2015; Strathearn et al., 2020). Childhood emotional abuse and neglect are associated with substance use disorders involving alcohol, cigarettes, and illicit drugs (cannabis, injectable drugs) (Strathearn et al., 2020). When examining sexual health outcomes, neglect has the strongest association

with negative sexual-health outcomes (e.g., early sexual debut, multiple sexual partners, youth pregnancy, miscarriage, abortion), when compared with other forms of child maltreatment (Strathearn et al., 2020). Finally, death from neglect-based maltreatment is also associated with having more individuals and more children in the family home, as well as having previous Child Protective Services reports (Damashek et al., 2013).

Household Dysfunction.

Household dysfunction is commonly characterized by four main components: (1) parental separation or divorce, (2) substance abuse in the home, (3) living with a mentally ill family member, and (4) having an incarcerated parent. Another factor that is inconsistently included as a component of household dysfunction is having witnessed intimate partner violence (IPV) in the home. IPV will sometimes be evaluated as a component of household dysfunction, but other times will be considered a factor of childhood trauma exposure on its own. IPV is consistently treated as a gendered variable in the childhood trauma literature based on the assumption that a child is witnessing a female guardian (e.g., mother or stepmother) being victimized by a male guardian (e.g., father or stepfather). These same five components (above) make up the “household Dysfunction” variable on the ACEs measure.

As stated earlier, in the original ACEs study household dysfunction was found to be the most prevalent form of adverse childhood experience (Fellitti et al., 1998). Traditionally household dysfunction prevalence is reported by sub-category. The most common household dysfunction sub-category is substance abuse in the household (28.2%), followed by domestic violence (24.1%), household mental illness (20.3%),

parental separation or divorce (13.0%), and exposure to crime in the household (6%; Dong et al., 2004). Retrospective studies have shown a high prevalence of experiencing household dysfunction in childhood. In one study conducted in Denmark, approximately 46% of their national sample has experienced at least one household dysfunction item (Anderson, 2021).

Exposure to household dysfunction in childhood has been associated with negative outcomes on multiple developmental, psycho-social, economic, and health factors including school performance, behavioral regulation, use of psychiatric care, incarceration, unemployment, psychiatric diagnosis, and even early death. Regarding developmental outcomes, children who have experienced more types of household dysfunction tend to perform worse in school than their peers (Bjorkenstam et al., 2015). Other studies have shown evidence that the household dysfunction items of the ACEs measure, excluding items about IPV, are not as impactful on youth mental health as the other ACEs categories (i.e., physical abuse, sexual abuse, emotional abuse, & neglect; Negriff, 2019). Exposure to household dysfunction may also have an age related impact, as those exposed to multiple types of household dysfunction at an older age (i.e., middle childhood and early adolescence) had a higher likelihood of negative outcomes than those exposed in early childhood and preschool (Anderson, 2021).

Ecological Understanding of Trauma

This section examines the growing research into an ecological understanding of trauma and its application to our understanding of childhood trauma. This section specifically examines childhood trauma experienced outside of the home, measures used

to collect this information as it applies to this study, and outcomes associated with these kinds of experiences.

ACEs based trauma prevention research has historically centered on adverse experiences that take place within the child's home (Barra et al., 2017; Caputo, Frick, & Brodsky, 1996; Levenson et al., 2015). This research primarily focuses on adverse experiences involving parents or caregivers and family members who reside with the child. Only in the last few years has the examination of community level trauma become a norm in the study of ACEs (Bartlett & Steber, 2019). Few studies investigating ACEs and JSOs have incorporated systems outside of the home where trauma could occur, neglecting the many contexts that children inhabit.

Children's Lives Outside the Home.

Outside of the home, children spend extended amounts of time in a diverse range of community settings that include day care, school, after-school education, leisure and sports programs, religious-affiliated settings and programs, receiving health and mental health services, as well as in their neighborhoods socializing with other children. School age children have been shown to spend as many as 33 hours a week in school and preschool age children spend as many as 9 hours at preschool or daycare (U.S. Department of Education, 2008; Hofferth & Sandberg, 2001). Children spend approximately 7.4% of their day, approximately 11 hours per week, on play and social activities including, specific activities such as unstructured sports religious activities, and general social activities (e.g., socializing, in conversations; Hall & Nielson, 2020). In fact, evidence suggests that 56.1% (40 million) of all children regularly participate in

youth sports programs alone (Solomon, 2019). These findings illustrate the need for prevention research to include more contexts beyond the home.

Finklehor's ACEs Variation.

There are a number of ACEs measurement variations with several components added or removed to better fit specific populations or to include ACEs factors excluded from the initial ACEs study. Dr. David Finklehor and his colleagues (Finkelhor et al., 2015) argue that the items in the original ACEs measure do not adequately cover the breadth of adverse experiences that typically occur in youth. Finklehor et al. (2015) used a social-ecological perspective, based in Bronfenbrenner's (1977) socio-ecological systems theory, to investigate additional adverse experiences that need to be included to provide a more complete picture of the phenomenon. They propose the addition of adverse experiences that occur outside of the home involving social situations and experiences that occur at the community level as well as life circumstances that create vulnerabilities to ACEs. These items include low socio-economic status, peer victimization, peer rejection and exposure to community violence. Two areas of childhood trauma that were previously excluded for the original ACEs study are represented with these additional items. The first encompasses the social relationships youth cultivate with their peers. The second concept involves community level factors that have individual and familial level impacts such as socio-economic status and exposure to community violence.

Negative Outcomes Associated with Trauma Outside the Home.

The standard 10-item ACEs scale neglects common microsystemic and macrosystemic factors related to trauma (Finkelhor et al., 2015). There is a multitude of literature on the negative effects associated with these adverse experiences, all of which relate to factors outside of the home microsystem. For example, peer rejection in youth predicted later peer victimization and relational victimization as well as aggressive and delinquent behaviors (Godleski et al., 2015). Further, peer victimization, or bullying, has previously been correlated with suicidal ideation, self-injury, and suicide attempts (Vergara et al., 2019). Bullying in childhood has also been linked to increased risk of being in a low SES in adulthood as well as poor health outcomes and inadequate social relationships in adulthood (Copeland et al., 2013). Previous research on community violence has reported an association with developmental problems, aggressive behavior, and increased depression in youth populations (Gorman-Smith & Tolan, 1998). Low SES has also been associated with increased exposure to family violence and family member incarceration, especially in juvenile justice populations (Wolff et al., 2018). In a 2020 study of 40 in-use and potential ACEs factors, Finkelhor and colleagues find that there are multiple domains of trauma not included in the basic 10-item ACEs scale that are significantly correlated with trauma response outcomes (Finkelhor et al., 2020). Some of these trauma domains, including peer victimization and community violence, hold stronger correlations to trauma response than the previously established items parental divorce/separation and having a family member in prison (Finkelhor et al., 2020). The findings from this body of literature reflect an increasingly larger number of ACEs findings linked to assessment items that were previously absent from the original ACEs

measure and are inconsistently included in studies. Their value underscores the importance of utilizing more comprehensive ACEs measures in future investigations of the trauma in youth's lives and in the lives of JOs.

Chapter 4: Sexual Offending

Sex Crimes Defined by the State of Oregon

To understand juvenile sexual offending, and its relationship to adverse childhood experiences, it is imperative to first engage with the local legal understanding and definitions of sexual offences. This section provides a brief overview of how sex crimes are defined in the state of Oregon. This section is not exhaustive and is intended to ground the reader in the legislative context surrounding juvenile detention for sex crimes.

Laws surrounding sex crimes are not federally regulated and vary from state to state. These variations are comprised of the inclusion or exclusion of certain crimes, how those crimes are defined, and the precedents for sentencing. Here, the sex crime laws for the State of Oregon involving minors are described, which were utilized in designating the sample in this study as JSOs. These laws include various types of physical sexual assault as well as various ways in which children may be exposed to sexual acts or materials.

Sex crimes within the state of Oregon are listed as Offenses Against Persons under Title 16, Chapter 163. Sexual offenses are broken down into 24 separate charges with an additional charge from the Offenses Against Family section and 7 charges in the Visual Recording of Sexual Conduct of Children section. Criminal sexual offenses involving minors include rape in the third degree (ORS 163.355), rape in the second degree (ORS 163.365) and rape in the first degree (ORS 163.375) which constitute sexual intercourse with a person under 16 years of age, sexual intercourse with a person under 14 years of age, and sexual intercourse with a person under 12 years of age or 16 years of age if it is the person's sibling, of the whole or half blood, the person's child or the

person's spouse's child, respectively. Sodomy charges in Oregon are similar to rape charges except the type of intercourse is specifically oral or anal intercourse (ORS 163.385-163.405). Unlawful sexual penetration is constituted by a person penetrating the vagina, anus, or penis of another with any object other than the penis or mouth of the actor and the victim is under 14 years of age in the second degree and the first degree if the victim is subjected to forcible compulsion, is under 12 years of age or incapable of consent (ORS 163.408-163.411). Sexual abuse is classified as any sexual contact other than penetration (ORS 163.415-ORS 163.427).

Multiple sexual offenses specify contact with a minor including using child in display of sexually explicit conduct (ORS 163.670), encouraging child sexual abuse (ORS 163.684-163.687), possession of materials depicting sexually explicit conduct of a child (ORS 163.688 -163.689), failure to report child pornography (ORS 163.670), online sexual corruption of a child (ORS 163.432-163.434), contributing to the sexual delinquency of a minor (ORS 163.435), sexual misconduct (ORS 163.448), and custodial sexual misconduct (ORS 163.452- 163.454).

Juvenile Detention

This section details commitment to detention within the juvenile justice system nationally and within the State of Oregon. A discussion of JOs' demographics is also included in this sub-section.

In the United States as of 2019, 36,479 youth were held in juvenile justice residential facilities (OJJDP, 2019). Male offenders account for 85% of all youth offenders nationally although proportions vary greatly by state, ranging from 78-97% (OJJDP, 2019). Over half of youth offenders in a residential placement are between the

ages of 16-17 (52.4%). The same OJJDP (2019) study also indicates that 9,705 youth are in detention, or over 25% of the total juvenile justice population. Further, racial and ethnic representation within juvenile detention centers are not reflective of the population breakdown of the United States as Black youth are over-represented (i.e., 41% of the detention population, but only 14% of the general population; National KIDS COUNT, 2020) At the same time, white youth represent 33% of the total population of detained youth followed by Hispanic youth (20%), Native American youth (2.1%), Asian youth (0.7%), Pacific Islander youth (0.3%), and Other youth (2.5%; Sickmund et al., 2021).

In Oregon, for 2021, approximately 1,112 juveniles received services from the Oregon Youth Authority (OYA) which provides for, and houses juveniles adjudicated of a crime. Approximately 38% of youth charged with a criminal offense were committed to one of five juvenile detention facilities within the state. The majority of youth in detention were 18-20 years of age (42%), followed by youth between the ages of 16-17 (33%). Most of the youth detained were male (89%). Self-reported race or ethnicity of youth offenders was similar to the Oregon population numbers with the majority of offenders reporting their race as white (52%), followed by Hispanic (24%), African American (15%), Native American (5%), Asian (2%), and Other/Unreported (2%). The average length of stay for youth in custody was 378 days but stays were slightly longer for male offenders (i.e., 406 days) and considerably longer offenders in adult facilities (i.e., 1401 days). Offenses committed by youth in the OYA system varied greatly. The most prevalent offenses committed by youth were sexual offenses (28%). This was followed by person-to-person crimes (22%) and property crimes (19%). Youth within Oregon detention facilities have also been diagnosed with a variety of mental health

disorders including conduct disorder, mental health disorders (other than conduct disorder), and substance abuse or dependence, as well as experiencing a variety of traumatic life experiences including parent drug use, sexual abuse, and previous suicidality (OYA, 2021).

Sexual Offenders

This section provides a brief overview of the literature regarding typology and classification for adult and juvenile sexual offenders. While the characteristics of sexual offenders are relatively similar across the literature, a discussion of typology is useful to foster a better understanding of common patterns associated with sexual offense perpetration. This section also discusses sexual offense recidivism rates and related research.

Adult Sexual Offenders.

When examining sexual offenders as a population, there is considerable variation in their descriptive characteristics. In a 2005-2011 U.S. national study of sexual violence against female victims, findings indicate that 57% of sexual offenders are found to be white and 27% found to be Black, with the remainder classified as “Other”, “Mixed”, or “Unknown”. The majority of sexual offenders are at least 30 years old (48%) or are young adults between the ages of 21-29 (25%). Although smaller in scale, approximately 15% of sexual offenders are under the age of 17 at the time of their offense (Planty et al., 2013). Offense characteristics also vary greatly amongst offenders. While over half of sexual offenses occur near the victim’s home, while conducting mundane household activities, victimization also frequently occurs in the homes of individuals known by the

victim (e.g., friends, family acquaintances), at schools, and in public spaces (e.g., Parking lots, garages, public transportation; Planty et al., 2013).

Sexual offender typologies have been developed over the years through a combination of clinical work, research involving psychometric profiling, demographic clustering, and classification based on previously established theory. While victim characteristics continue to be a primary means of categorizing sexual offenders, other factors including offender characteristics and offense characteristics are also used in offender typologies. The United States Department of Justice recognizes four different typologies of adult sexual offenders: Female Sexual Offenders, Internet Offenders, Child Sexual Abusers, and Rapists (Simons, 2015). However, not all of these groups are represented equally within the offender population. Evidence suggests that the majority of sexual offenders are male, with female sexual offenders making up an estimated 2%-5% of the total population, though the actual percentage may be slightly higher due to under reporting (Augarde & Rydon-Grange, 2022; Cortoni et al., 2017). Offender categories are also not entirely separate as there is frequent overlap between groups (e.g., online child pornography viewers, female rapists; Simons, 2015).

Juvenile Sexual Offenders.

In recent years, there has been an effort to reexamine long-standing categorizations of JSO's and to create new categories based on previously understudied factors. For example, youth who sexually offend are studied far less often than adults. As a result, the juvenile classifications for sex offenders tend to be less accurate and less consistent than for adult sexual offenders. Instead, JOs are typically seen as a

homogenous classification in and of themselves (Calley, 2012; Ford & Linney, 1995; Jacobs et al., 1997). The following section will summarize the currently available research into JO sub-type categorizations.

The most common JSO typology pattern is based on victim characteristics such as victim age, victim-perpetrator age discrepancy, and the victim's relationship to the offender (Skubic et al., 2010). Victim age is typically divided into peer and child victims, where victim-perpetrator age discrepancy, and the victim's relationship to the offender are inconsistently defined across the literature. Victim age is often used in studies and has demonstrated some ability to differentiate key offense-related variables such as familiarity with the victim and use of physical violence (Gunby & Woodhams 2010). At the same time, however, its efficacy has varied from study to study, sometimes showing the most and other times the least differentiation between groups (Aebi et al., 2012; Skubic et al., 2010). Moreover, other overarching typologies examined as better fits for offender categorization include offender characteristics and offense characteristics.

The second most prevalent type of JSO categorization is based on offender characteristics which are factors that describe the offender or relate to the offender's behavior. Studies that evaluate the efficacy of offender characteristics as a categorizing tool examine a variety of factors for grouping offenders including: descriptive (e.g., age of first offense, number of felonies, nationality, SES, and offender home-life characteristics at time of offense); clinical (e.g., depression, psychosis); personality (e.g., impulsivity, empathy); and trauma (e.g., history of sexual abuse, family deviancy, and parental neglect; Gunby & Woodhams 2010; Aebi et al., 2012; Fox & DeLisi 2018).

Recent studies that examine this typology method have had success in discerning discrete JSO sub-types.

Examining offense characteristics is the least prevalent typology method in the literature and consists of factors that describe the behaviors and contexts associated with sexual offense(s). The primary factors evaluated in this type of typology are severity of the sexual offense, number of offenses against the victim, use of intoxicants in the offense, verbal intimidation or coercion, physical intimidation or coercion and use of a weapon (Aebi et al., 2012). While the literature on the offender typologies of JSOs is nascent and growing, far more time and effort is placed into the study of JSO recidivism as further discussed in the next section.

Recidivism.

Recidivism prevention is a top priority for prevention researchers, juvenile justice, and the public at large. Recidivism is defined as “criminal acts that resulted in rearrest, reconviction or return to prison with or without a new sentence during a three-year period following the prisoner's release” (National Institute of Justice, 2021). It is important to note that recidivism is measured by re-arrest, not by re-offense or new offenses. As a result, the recidivism rate is only representative of offenses for which someone is apprehended, and not for first offenses after release. There is also a huge difference between recidivism rates based on type of offense and the type of offender. Specifically, recidivism rates for youth who sexually offend look very different than recidivism rates for youth who commit non-sexual offenses or adults who sexually offend. Recidivism of sexual offenses from youth who sexually offend trends low with studies that show rates

of 0.9% -12.2% (Caldwell & Dickinson, 2009; Letourneau & Armstrong, 2008). Youth who sexually offend are one of the least likely groups to commit another sexual offense. Youth sexual recidivism rates trends are far lower than in adult populations for which the average 5-year recidivism rate is 13.7% (Hanson & Morton-Bourgon, 2005). Although sexual offense recidivism is low in youth populations, recidivism rates for any type of offense committed by youth who sexually offend average 59.3% (Caldwell & Dickinson, 2009).

Chapter 5: ACES & Juvenile Offending

This section will provide an overview of the research literature relating JSOs, general childhood trauma, and ACEs. First, the theory of victim offender overlap will be discussed as the theoretical basis for this section. A discussion of ACEs research for JOs will be followed by a summary of the research specifically examining ACEs and JSOs.

Victim Offender Overlap.

This section will discuss the theory of victim-offender overlap and how it pertains to the study of childhood trauma, JSOs, and sexual assault prevention through understanding the ACEs histories of JSOs. Victim-offender overlap theory suggests that victims and offenders share many similar characteristics including demographics, neighborhood culture, offense histories and willingness to engage in risky behaviors. This theory also suggests that victims of a specific type of offense or abuse have an increased likelihood of participating in that behavior or committing similar offenses later in life (Cops & Pleysier, 2014; Mustaine & Tewksbury, 2000; Wolfgang, 1966). Despite being proposed more than 60 years ago, this theory remains underdeveloped. For example, authors are still working out key factors that include the most appropriate unit of analysis (i.e., person, family, community, system) and the inclusion of situational and contextual elements within the victim-offender cycle. However, victim-offender overlap is still considered a prominent theory within the trauma prevention arena that is growing in popularity as longitudinal studies examining the theory are completed (Berg & et al, 2012). For instance, recent research by Miley and colleagues (2020) examines the relationship between being victimized and perpetrating the same type of offense. Findings indicate that exposure to violence, substance abuse, and sexual abuse increases

the likelihood of committing these specific acts. For example, youth who had experienced physical abuse have a 50% increase in the likelihood of committing a violent offense and youth who have experienced household substance abuse are 66% more likely to commit a drug offense than youth who have not had those childhood experiences. Links between poly-victimization, (i.e., experiencing multiple types of victimization) and later delinquent behavior are also identified. As many as 55% of youth who have experienced three or more types of victimization self-reported engaging in delinquent behavior (Wemmers et al., 2018).

Studies examining the relationship between child sexual offenders and their victims have found similar results to studies examining victim offender overlap more broadly. A large proportion of perpetrators of CSA have experienced CSA themselves, approximately 46%-75%, though as many as 82% of perpetrators had experienced some form of child abuse (Abbiati et al., 2014; Craissati et al., 2002; Johnson, 1988). Additionally, male perpetrators who chose male children as victims were more likely to have experienced CSA than perpetrators who chose female children as victims (Craissati et al., 2002). Some of these findings translate to JSOs, as well. When comparing JSOs with a history of CSA to those with no history of CSA, differences emerge regarding offense characteristics. Male youth who had experienced CSA chose younger, male victims than youth who had not experienced CSA (Morais et al., 2018). While this theory is still under development, the current literature supports the idea that there is an association between being the victim of an offense in childhood and going on to commit similar offenses and negative behaviors later in life. This literature also supports the notion that offenders, who were victims of that offense, choose victims with

characteristics that are similar to themselves. This concept supports further research into the relationship between sexual abuse history, as well as other forms of victimization and abuse identified in the ACEs measure, and juvenile offending.

ACES & Juvenile Offenders.

One facet of juvenile offense research is specifically concerned with the relationship between ACEs and juvenile offending. High ACEs scores have been associated with an increased risk of juvenile offending and involvement with the juvenile justice system. In fact, research findings indicate that for every 1-point increase in ACEs score there is a 0.91-1.68 point increase in the likelihood of juvenile justice system involvement (Graf et al., 2021). At the same time, high ACEs scores have also been linked with a higher likelihood of re-offending (Baglivio et al., 2014), although this may not be the case for offenders committing more serious crimes (Craig et al., 2020). When examining the adverse childhood experiences of JOs, a few clear patterns begin to emerge. First, youth who have high ACEs scores tend to be arrested at an earlier age than those who report lower ACEs scores. These youth make up a higher proportion of juvenile arrests, even after accounting for age at time of arrest (Baglivio et al., 2015). ACEs differences are also present when youth are compared across offender offense characteristics. For example, youth who have committed serious, chronic, or violent crimes (including sexual offense) were found to have twice the number of ACEs in their history as compared to one-time offenders (Fox et al., 2015).

ACES & Juvenile Sexual Offenders.

The literature examining ACEs experienced by JSOs is a growing, interdisciplinary body of research. The number of reported ACEs also relates to the

characteristics of selected victims. Higher ACEs scores increase the likelihood that a juvenile perpetrator will choose a victim younger than themselves (Barra et al., 2018). The characteristics of reported ACEs have also been examined in relation to juvenile sexual offense characteristics. Barra et al, (2018) find that JOs who primarily have family related ACEs histories also report a greater likelihood of committing a penetrative offense and a non-sexual offense. JSO's who experienced peer related ACEs have a greater likelihood of choosing a younger victim and of committing a penetrative offense. Experiences of neglect in childhood are also associated with an increased risk of choosing to offend against a younger victim (Barra et al., 2018). Additionally, Puskiewicz and Stinson (2019) find that variation in the type of ACEs exposure leads to differences in the onset of sexually abusive behaviors as well as the extremity of the behaviors and the persistence of the behaviors over time. In contrast, research into the relationship between ACEs and both the seriousness of the offense and sexual recidivism has been inconclusive (Ozkan et al., 2019; Craig et al., 2020; Narvey et al., 2020; Kahn et al, 2021).

Chapter 6: Current Study

Critique of the Literature

Currently, there is limited research examining the adverse experiences of JOs. The existing literature focuses on juvenile offending as a whole and often does not delineate between different types of offending behavior (Calley, 2012; Ford & Linney, 1995; Jacobs et al., 1997). Studies that do examine JO typology tend to use characteristics of individuals who are victimized, as opposed to those who commit offenses as their primary delineating factors (Gunby & Woodhams 2010; Skubic et al., 2010; Aebi et al., 2012). For the purposes of sexual abuse prevention, an understanding of the patterns of JOs based on their own characteristics could open doors regarding prevention, the early identification of JOs, and their clinical treatment, as well as reducing unrealistic expectations for potential victims to identify risks and keep themselves safe.

The literature in this area also lacks a focus on the relationship between the kind of adverse experiences in an individual's history and the type of offense perpetrated. Further, current literature primarily attends to adverse experiences that occur in the home and does not consider trauma that can occur in other microsystems, such as peer groups, or in macrosystems that might include aspects of their community (Barra et al., 2017; Caputo, Frick, & Brodsky, 1996; Levenson et al., 2015). By avoiding or ignoring potential sources of trauma that exist outside the family home, the literature does not reflect a comprehensive understanding of JOs' trauma experiences and history.

In general, there is limited research on the adverse experiences of JOs. Existing research focuses on juvenile offending as a whole and does not always delineate between

different types of offenses. Finally, few studies focus on the relationship between the kind of adverse experience in someone's history and the type of offense perpetrated.

Purpose of this Study

The purpose of this study was to examine the relationship between adverse childhood experiences and the types of juvenile offending incorporating multiple ecological systemic levels including home relationships, peer relationships and the surrounding community. By investigating the relationships between the three types of ACEs (i.e., the total original ACEs score, original ACEs Factors, and the community ACEs score; see Table 1) and the type of juvenile offense (i.e., juvenile sex offenses & Juvenile non-sex offenses) this study hoped to gain a better understanding of the contribution of traumatic life experiences to juveniles' offending behavior by examining differences between the two groups. Secondarily, this study aimed to explore the use of community level ACEs items in understanding juvenile offending behavior. Gaining more knowledge about the relationship between adverse childhood experiences (i.e., As characterized by the number of total experiences), as well as the type of experience, has the potential to elucidate prevention, early intervention, and treatment pathways for JSOs.

Research Questions

The following research questions were developed to address the gaps in the literature surrounding community level ACEs and to improve our understanding of the relationship between ACEs exposure and JO typology.

Research Questions One: What is the relationship between total ACEs score and sexual offending typology?

This research question would clarify a gap in the literature by improving our understanding of the extent to which number of ACEs exposures is associated with different offending trajectories (i.e., sexual offending or non-sexual offending). While there are a few studies that have examined this relationship, the vast majority of studies rely instead on victim characteristics to conceptualize JO typology (Gunby & Woodhams 2010; Skubic et al., 2010; Aebi et al., 2012). Studies that have looked at offense characteristics more broadly have found that JOs who commit serious or chronic crimes have twice the number of ACEs as compared to one time offenders (Fox et al., 2015). This research question aimed to investigate JO trajectory based on the offender characteristic “ACEs exposure.” which would contextualize offender behavior within their own history.

Based on previous literature examining the relationship between ACEs score and offending (i.e., JSO vs. JNSO), it was hypothesized that:

1. Total ACEs score will predict sexual offending over non-sexual offending.

Research Question Two: What is the relationship between type of original ACEs exposure and juvenile offender typology?

This question aimed to examine the association between quality of ACEs exposure and offender typology. Instead of centering on victim characteristics, this study focused on trauma factors in the juvenile’s life history. Similar to research question one, there are multiple studies examining this relationship with a victim-centered criteria for offense typology (Gunby & Woodhams 2010; Skubic et al., 2010; Aebi et al., 2012). This question investigated beyond ACEs as a sum total within the JOs’ lifetime and delved

into the role of specific trauma history factors. This analysis would enhance our understanding of the specific types of trauma associated with juvenile sexual offending.

This study focused more appropriately on JO characteristics. It was hypothesized that:

1. Sexual abuse and emotional abuse will predict sexual offending over non-sexual offending.
2. Physical abuse and neglect will predict non-sexual offending over non-sexual offending.

Research Question Three: Do community level adverse childhood experiences predict the type of juvenile offence (sexual or non-sexual)?

This research question would fill a gap regarding our understanding of the relationship between JO typology and adverse experiences that occur outside of the family home/ immediate family unit. This analysis, based on Finkelhor and colleagues' 2015 study of a revised ACEs measure, would broaden our knowledge of how adverse experiences beyond the home (i.e., peer victimization, peer rejection, community violence, and SES) are associated with offender typology. This is particularly important given the amount of time that youth spend in the community and how impactful adverse community level interactions can be in negatively shaping youth outcomes (Copeland et al., 2013; Vergara et al., 2019; Wolff et al., 2018).

Based on socio-ecological systems theory (Bronfenbrenner, 1977; Finkelhor et al., 2015), it was hypothesized that all community level interpersonal items (e.g., peer rejection and peer victimization) would be a stronger predictor of sexual offending than non-sexual offending.

Methods

Sample.

The data for this sample was previously collected as part of a larger investigation of JOs. A total of 268 male youth, 95% of total population of an Oregon Youth Authority Detention Center, were sampled for this study. Youth ranged in age from 10 to 24 years old ($M=18.43$ years, $SD=2.12$). The average highest grade of education completed was 10th grade and 67% of the youth sampled were non-sexual offenders ($n=180$). No race or ethnicity questions were contained in any of the study measures. Instead, racial and ethnic information from the facility was used as a proxy, since 95% of the youth in the Detention Facility participated in the study. This is to help maintain confidentiality, as the low concentration of youth of color could unintentionally identify participants based on their race/ethnicity if such questions were asked in the study measures. The majority of facility youth were identified as white (61%), 16% of youth identified as Hispanic, 14% as Black, 7% as Native, 1% as Asian and 1% as Other or Mixed Race. When asked about marital status, the majority (95%) of participants had never been married, approximately 3% were married at the time of the study, and the remaining 2% were separated, divorced, or widowed. Approximately 40% of participants had graduated high school or received a GED and 79% were enrolled in school.

An offense history was also captured for each participant via a self-report offense history measure. Participants entered juvenile detention between December 2009 and July 2018. For JNSOs, the average age of first criminal offense was 10.5 years old ($SD=2.92$) and the average age of most recent criminal offense was 16.2 years old

(SD=1.57). For JSO's, the average age at first sexual offense was 12.7 years old (SD=3.52) and the average age of most recent sexual offense was 14.7 years old (SD=2.26).

Measures.

Demographics. The demographics measure contained questions about participants age in years, marital status, education history by grade level completed, and current enrollment in school. Data from this measure was used purely for descriptive purposes within the confines of this study.

Offense History. The offense history measure consisted of multiple questions which asked about youth's age (in years) at first arrest for a sexual or non-sexual offense, even if not caught; age (in years) for their most recent sexual or non-sexual offense, even if not caught; date of entry into juvenile detention; and the number of times youth were arrested on sexual charges (i.e., for JSOs only). Data from this measure was used purely for descriptive purposes in this study.

Offender status (i.e. sexual offender or non-sexual offender) was determined by each participant's offense history record ahead of data collection. Participants were not asked to self-identify in the demographics or offense history due to ethical concerns over self-incrimination. In this study, JSO was defined by a participant having any sexual offense history in their record regardless of most recent conviction. JNSO was defined by a lack of sexual offense history in a participants record. Whether or not a participant committed a sexual offense but was not caught or convicted was not captured in this study due to the prior noted concerns of self-incrimination.

ACEs. Trauma history was evaluated using The Adverse Childhood Experiences Scale (ACEs; Finkelhor et al., 2015). This was a modified version of the ACEs measure containing the 10 original dichotomous yes-no items assessing emotional abuse, physical abuse, sexual abuse, emotional neglect, physical neglect, and household challenges such as violence, substance abuse, and mental illness in the home. Additional dichotomous items were included in this modified version that further assessed low socioeconomic status, peer victimization, peer rejection, and exposure to community violence. For the larger data collection, the original ACEs items were separated into individual questions. As a result, participants were asked to respond to a total of 23 items (see Appendix A). For the purposes of this study, the 23 items were re-coded into the original 10 ACEs items. Each of the the 23 items were coded as 1 for “yes” and 0 for “no”. In SPSS, syntax was developed to create the original 10 ACEs variables from the 23 items using the recode into new variable function. Each of the 23 items was matched to the original ACEs item from which it came. If any of the items making up the new ACEs variable was coded as a yes, then the new variable was a yes.

Currently, there is one psychometric study available to support the modified version of the ACEs measure used in this study. Finklehor et al. (2013) found that the association between ACEs and negative mental health outcomes was strengthened by the addition of the variables: peer victimization; peer rejection; community violence exposure; and socio-economic status (from $R^2=0.21$ to $R^2=0.34$). Little psychometric testing has been done on the ACEs measure in its original iteration and the literature that is available tends towards variations on the measure. One study that examines the impact

of experiencing different forms of ACEs found that having one ACE increased the likelihood of having experienced other ACEs, as well (Odds Ratio ranged 2.0-17.7 times; Dong et al., 2004). The test-retest reliability of the ACEs measure has been examined in two different studies, the first with adult HMO members from a primary care clinic (Dube et al., 2004) and the second with college student athletes (Zanotti et al., 2017). The first study found moderate agreement in kappa coefficients between times tested (kappa values ranged from .51-.86), the second study found modest test-retest reliability ($r=.71$, $p<.001$). The psychometric properties of the ACE-Short Form (ACE-SF) were tested using exploratory factor analysis and confirmatory factor analysis in a sample of Romanian high school students. The ACE-SF only includes abuse related items (i.e., sexual abuse, emotional abuse, physical abuse). This study supported a two factor structure featuring physical/emotional abuse and sexual abuse ($\chi^2(df)= 60.526(19)$; RMSEA=0.036; CFI/TLI=0.990/0.986) though this finding is only applicable to the short form ACEs (Meinck et al., 2017). Given the paucity of studies, continued research into the psychometric properties of the ACEs measure and its growing number of variations is necessary.

Data Collection.

Consent forms were signed by the institution as the youth's guardians of record and assent forms were signed by JOs who volunteered to participate. Data collection was completed with groups of 20-25 participants. Juveniles were given one "pencil and paper" measure at a time to complete (See Appendix B for a list of the other measures not included in this study). Corrections staff were present during data collection, based on

facility rules, but were asked by study facilitators not to interact with the participants during the data collection process. Participants were informed that facility and corrections staff were not to interact with or review any data collection materials during the collection process to offer them privacy during the data collection process. Participants were also informed, via the assent process, that they could reach out to facility employed mental health staff if participation in the study brought up any feelings of upset due to the content of the measures.

Graduate student Research Assistants, under Dr. Kaufman's supervision, facilitated the data collection process and were the only individuals to interact with the study measures other than the participants. The participants were asked to raise their hand every time they finished a measure so that a facilitator could ask them to check for missing responses before placing the completed measure in an unmarked manilla envelope kept at their place, to keep packets together, while ensuring anonymity. The research facilitators also reviewed the instructions for each measure, once the prior measure was checked by the participant and placed in their envelope. Participants were also given a snack during the data collection. In total, data collection took approximately 1.5 hours to complete. After data collection was complete, the manilla envelopes were collected and each was labelled with a sequential number and letter to identify the facility and to provide a unique number for data management purposes. These envelopes were then stored in a locked filing cabinet in the research team office.

Results.

In order to examine the relationship between ACEs scores and juvenile offense type, three logistic regressions were conducted using SPSS with offense type, coded as JSO or JNSO, as the dependent variable.

Missing Data.

Missingness varied across analyses. Out of a total of 269 cases, 3% of the participants for RQ1 had missing items central to the study, RQ2 was missing 7.4% of participants, and RQ3 was missing 7.4% of participants removed through listwise deletion. Participants that were removed due to missing data did not differ from the included sample on age ($t[263] = -0.05, ns$), marital status ($\chi^2 [4, N=268] = 1.2, ns$), or education level ($t[176] = 0.84, ns$)

Group Differences.

Demographic variables were compared between groups. An independent samples t-test showed that JSOs, ($M=19.11, SD=2.32$) were significantly older than JNSOs, ($M=18.03, SD=2.17$), ($t[263] = 3.74, p < .001$). An independent samples t-test showed that JSOs and JNSOs did not significantly differ in education level, ($t[176] = 0.07, ns$). A chi-square analysis showed no difference between JSOs and JNSOs in marital status, ($\chi^2 [4, n = 269] = 7.22, ns$).

Power.

A Post Hoc power analysis was conducted in GPower as this study used a previously collected data set. For the logistic regression examining total ACEs score, post hoc power was 0.09. For the logistic regression examining the original ACEs variables,

post hoc power ranged from 0.19-0.99. For the logistic regression examining community level ACEs variable, post hoc power ranged from 0.39-0.98. While the power values for multiple logistic regressions in RQ2 and RQ3 fell at or above the ideal power value of 0.8, the majority did not. The power value for the logistic regression in RQ1 did not meet the smallest potentially acceptable power value of 0.2. This suggests that a small sample size, or low frequency of item endorsement for “yes” or “no” responses, may have led to a type II error or false negative. Further research with a larger sample size would be necessary to determine whether a type II error occurred.

Research Question One:

The first logistic regression examined the relationship between total ACEs score and offense type. The Total ACEs Score variable was calculated by summing the scores of the ten original ACEs variables. A logistic regression was run in SPSS in which Total ACEs Score predicted JO typology with age included as a control variable. The resulting model was statistically significant, ($\chi^2 [2, n= 264] = 14.38, p<.001$). The model explained 7.4% (Nagelkerke R^2) of the variance in JO typology. However, total ACEs score was not a significant relative predictor of JO typology after controlling for youth age (OR=1, 95% CI [0.98, 1.01]).

Research Question Two:

The second logistic regression examined the relationship between the ten original ACEs items and offense type. The predictor variables in this logistic regression consisted of the emotional, physical, and sexual abuse items, the neglect items, and the household dysfunction items. A logistic regression was run in SPSS in which the original 10

individual ACE variables predicted JO typology with age included as a control. The resulting model was statistically significant $X^2(11, n=269) = 69.07, p < .001$. The model explained 32.0% (Nagelkerke R^2) of the variance in JO typology. When examining each ACEs item, four variables were statistically significant (i.e., emotional abuse, emotional neglect, divorce, incarcerated family member). JSOs were approximately 7 times more likely to experience emotional abuse than JNSOs (OR=7.33, 95% CI [2.78, 19.31]). JSOs were also about 2 times more likely to experience emotional neglect than JNSOs (OR=2.12, 95% [1.01, 4.44]). Divorce was approximately 2.5 times more likely to be experienced by JNSOs than JSOs (OR=0.39, 95% [0.17, 0.92]). The last significant relative predictor in this model was having a family member who was incarcerated which was approximately 2.7 times more likely to be experienced by JNSOs than JSOs (OR=0.37, 95% CI [0.20, 0.70]). Physical abuse, sexual abuse, physical neglect, family member mental illness, and witnessing domestic violence were all not significant relative predictors of JO typology (see Table 2).

Research Question Three:

The third logistic regression examined the relationship between community level ACEs items and offense type. A logistic regression was run with low SES, community violence, peer victimization, and peer rejection as predictors of JO typology and age was included as a control. The resulting model was statistically significant $X^2(5, n=269) = 40.57, p < .001$. The model explained 21.0% (Nagelkerke R^2) of the variance in JO typology. Peer rejection was 2.8 times more likely to have been experienced by JSOs than JNSOs (OR=2.84, 95% CI [1.44, 5.56]). Community violence was 2.4 times more

likely to be experienced by JNSOs than JSOs (OR=0.41, 95% CI [0.22, 0.77]). Peer victimization and low SES were not significant relative predictors of the JO typology (see Table 3).

Discussion

The purpose of this study was to investigate the relationship between ACEs history and juvenile offending typology. It does so by analyzing the relationship between offender typology and the number of ACEs experienced, type of ACEs experienced, and type of community level ACEs experienced. Overall, the data supports that ACEs are experienced differently by JSOs and JNSOs in both quantity and quality. This section will provide further detail regarding study findings and their implications relative to the existing literature, study limitations, and future directions for research and practice.

ACEs Quantity.

Research question one examined if there were differences in total ACEs score between JSOs and JNSOs. This study revealed that there was not a significant difference in ACEs total score between JSOs and JNSOs. According to the literature, every 1-point increase in ACEs score increases the likelihood of juvenile justice system involvement (Graf et al., 2021). The literature on juvenile sexual offending also suggests that high ACEs exposure is related to a greater likelihood of committing a serious or chronic crime (Fox et al., 2015). Findings from this study suggest that both JSOs and JNSOs are equally impacted by Total ACEs score.

ACEs Quality.

Research question two examined whether each individual ACEs variable predicted juvenile offending typology. Study findings demonstrated that three of the ten ACEs variables significantly predicted offender typology. JSOs, in this study, were more likely to experience emotional abuse and emotional neglect than JNSOs. Further, JNSOs were also more likely to experience incarceration of a family member than JSO's. While significant emotional abuse findings had been hypothesized, the relationship between emotional neglect exposure and sexual offense, as well as the relationship between having an incarcerated family member and nonsexual offense were not predicted.

Multiple studies in the literature support this study's findings. Investigations of attachment and sexual offense have previously reported that youth who experience parental emotional abuse and emotional neglect are more likely to form a disorganized attachment style and struggle in future romantic and non-romantic relationships (Hildyard et al., 2002; Tyler et al., 2006). Furthermore, JSOs have been described as feeling a stronger sense of alienation and mistrust in interactions with their parents, when compared to JNSOs (Yoder et al., 2016). Additionally, male JSOs with anxious attachments are more likely to perpetrate a sexual offense against a child than a peer or adult victim, which is viewed as more deviant behavior in the literature (Miner et al., 2016).

Starting off as "broken home" research, journals like *Social Forces* published articles examining, accepting, and eventually rejecting, divorce as a cause of juvenile delinquency (Shaw & McKay, 1932). Later revived interest in the topic brought about research that found mixed results as to whether divorce was a cause of juvenile offending

behavior. In this era, cultural norms and cultural bias were introduced as key factors in determining the value of broken home research (Wilkinson, 1974). Modern meta-analyses of the literature have found an association between divorce and juvenile delinquency (Price & Kunz, 2003). Though, the association may not be due to the divorce in and of itself but may instead be attributed to specific qualities of divorce. For example, justice system interaction is more likely for children of divorced parents than children of married parents, which may be due to a cultural bias towards intact familial homes (Johnson, 1986). Additionally, studies examining juvenile delinquency during the transition from a 2-parent to a 1-parent household did not find a significant relationship between the transition and juvenile offending. Instead, juvenile offending was predicted by familial issues present before the divorce (Schroeder et al, 2010). Though other research has demonstrated that divorce may be a form of protection from juvenile offending in the case of the intergenerational transmission of violent criminal behavior from father to child (Van de Weijer et al., 2015).

Studies have also found associations between familial incarceration and juvenile offending. Delinquent behavior in youth has been predicted by past parental incarceration (Aaron & Dallaire, 2009). Youth who have an incarcerated parent have also been found to present with more externalizing behaviors, such as driving under the influence, vandalism, and theft, as compared to youth without an incarcerated parent. Moreover, youth with a currently incarcerated parent presented even higher levels of externalizing behaviors than youth with a previously incarcerated parent (Ruhland et al., 2020).

To some degree, it was surprising to find that a history of sexual abuse was not reported as a significant predictor of sexual offending. To this point, in a review of the juvenile sexual offense literature, Seto and Lalumiere (2010) found that in 31 out of 33 studies, male JSOs reported frequently experienced child sexual abuse. Further research is necessary to determine the causality of the finding in the present study.

Community ACEs Variables.

Research question three examined if community level ACEs variables predicted juvenile offending typology (i.e., JSO vs. JNSO). Results indicated that two of the four community variables significantly predicted offending typology. First, JSOs were more likely to experience peer rejection than JNSOs. This finding is consistent with the hypothesis that interpersonal community ACEs items would be a stronger predictor of sexual offending than nonsexual offending. Studies have shown that, compared to JNSOs, JSOs perceive themselves as socially “normal” compared to their peers yet more socially isolated from their peers (Miner & Munns, 2005; Seto & Lalumiere, 2010). Though, other studies have demonstrated no significant difference in peer level social factors between JSOs and JNSOs (Yoder et al., 2018). More research into peer social relationships is warranted. It may be particularly valuable to further investigate the accuracy of JSOs’ self-perceptions as “normal” compared to peers.

Second, JNSOs were more likely to have experienced community violence than JSOs. This is consistent with study predictions, as well as previous research which described an association between exposure to community violence and delinquent behavior. For example, a study by Patchin et al. (2006) demonstrated that exposure to

community violence significantly increased the likelihood of engaging in personal assault. Further, the literature supporting this relationship suggests four potential mediating variables between community violence exposure and delinquent behavior, consisting of two internalizing and two externalizing behaviors (i.e., depression, anxiety, conduct disorder, and aggression, respectively; Hong et al., 2014). Other studies have, however, suggested that youth who are exposed to community violence are more likely to commit violence due to a combination of three factors: (1) internalizing behaviors; (2) externalizing behaviors; and (3) other contextual factors, such as family coherence and conflict (Halliday-Boykins & Graham, 2001).

Study Implications.

There are three primary implications of this study. The first impacts the literature on juvenile sexual offending and expands our understanding of the relationship between childhood trauma experiences and juvenile offending. The second concerns practical aspects of treating JOs and relates to assessing, treating, and providing supportive services for JOs to reduce recidivism. The third implication highlights the potential for future prevention of sexual offenses, and other harmful outcomes, by broadly investing in trauma informed services and trauma informed care.

This study contributes to the growing literature on the relationship between juvenile sexual offending and childhood trauma and helps to fill gaps regarding community level trauma experienced by juveniles who have committed sexual offenses. The majority of literature that measures childhood trauma using an ACEs framework utilizes the standard ten question assessment device. As our understanding of childhood

trauma expands, beyond a conventional understanding into a more nuanced conceptualization, so should the measures that we use to study trauma. This study further supports the use of an expanded ACEs measure that includes additional community focused items.

Second, practical implications of this study contribute to better informed approaches for the assessment and treatment of JOs. Improving our knowledge in this area offers the potential to contribute to improved versions of trauma informed treatment, as a means of enhancing juveniles' well-being and to reduce offender recidivism. Adverse childhood experiences are common in this population and have been associated with negative health, behavioral, and psychological outcomes. It is important to assess for and consider the varied types of trauma a JO may have experienced as a contribution to treatment planning. Finally, the contribution of information on trauma that has been experienced outside of the home setting is also suggested for incorporation into future assessment and treatment approaches. Findings from this study also suggest the need to incorporate factors related to emotional abuse, emotional neglect, and peer rejection into assessment and treatment efforts for JSOs as well as the addition of divorce, familial incarceration, and community violence into the practical assessment and treatment efforts for JNSOs.

Third, study findings offer implications for preventive oriented policy and programming directions, with the goal of preventing/reducing both child sexual assault and adverse childhood experiences. There is a plethora of literature on the long-term negative impacts on wellness associated with exposure to childhood trauma. This study offers critical information that could foster the tailoring of prevention programming

policy and practice to better meet the trauma related needs of youth who have engage in both sexual abuse/assault and delinquency behaviors. Systemic programing and policy changes have the potential to reduce and prevent child sexual abuse, while also more broadly addressing youth's mental health and behavioral concerns related to their experience of childhood trauma.

Study Limitations.

The primary limitation of this study was related to the characteristics of the ACEs measure itself. The ACEs questionnaire has had little testing regarding validity and reliability. A multitude of studies in various disciplines have used the ACEs measure and have made claims as to its usefulness in examining trauma history, but very few studies have systematically examined the measure's reliability and validity. Another limitation of this measure is the lack of available details and contextual information about the traumatic experiences contained in the measure. Childhood trauma is complex and involves the impact of a broad range of factors that are not captured by the ACEs questionnaire. Salient contextual factors mentioned in the literature include age (Chaffin et al., 1996; McClellan et al., 1996), and the influence of social partners (e.g., peers, friends, teachers, mentors; Carmondy et al., 2000; Schaeffer et al., 2005). Neither of these contextual factors are captured in the ACEs measure. Instead, the current version only assesses whether a particular adverse experience has occurred. There are many benefits to the measure being short and simple, however, it comes at the cost of important contextual information. Third these data were collected as part of a larger data-collection effort, so the number of measures and length of the overall assessment session may have impacted

the quality of participants' responses due to fatigue. Fourth, all of the study measures were self-report in nature, and many examined sensitive topics (e.g., emotional abuse, sexual abuse etc.), which could have led participants to skip questions or feel uncomfortable answering truthfully. Fifth, low sample size or low endorsement of either "yes" or "no" responses for particular items may have contributed to low power values in a post hoc power analysis. These low power values represent the inability of the study to distinguish non-significant results from a type II error.

Future directions.

This study, designed to provide information about a broad spectrum of adverse childhood experiences with a secondary focus on more community level ACEs, points to pathways to improve future JO research, policy, and practice. A better understanding of community level ACEs also points to specific prevention and intervention strategies which may contribute to the reduction of future rates of trauma in this area. This study's positive impacts may influence sexual harassment prevention strategies focused on decreasing feelings of peer rejection and isolation in boys, as well as promoting community projects and programming to reduce crime and other forms of community violence. Study findings also point the way to reducing trauma in particular community-based youth serving organizations where youth spend considerable time (e.g., school, afterschool spaces, religious spaces, neighborhood spaces) and potentially informs prevention efforts to reduce trauma perpetrated by social partners outside of the family (e.g., classmates, school faculty, friends, neighbors, local law enforcement etc.). Finally, findings from this study offer recommendations for the improvement of the ACEs

measure itself. This may involve the deletion of ACEs variables that do not significantly contribute to our understanding of the phenomenon or findings that suggest the need for additional key variables such as community violence and peer rejection. Ultimately, a clearer understanding of the association between trauma experienced in childhood and a later propensity for sexual violence (or delinquency) can positively impact systemic efforts to prevent child sexual assault, non-sexual forms of violence, and help youth heal from the impact of adverse experiences.

Tables

Standard ACEs Items	Abuse	Emotional Abuse
		Physical Abuse
		Sexual Abuse
	Neglect	Physical Neglect
		Emotional Neglect
	Household Dysfunction	Divorce
		Domestic Violence
		Mental Illness in a Family Member
		Substance Use Disorder in a Family Member
		Incarceration of a Family Member
Additional ACEs items	Community Level ACEs	Peer Rejection
		Peer Victimization
		Community Violence
		Low SES

Table 1: ACEs variables included in present study

ACEs Variable	OR	Significance
Emotional Abuse	7.33	<.001
Physical Abuse	0.62	0.28
Sexual Abuse	0.96	0.59
Emotional Neglect	2.12	<.05
Physical Neglect	0.75	0.47
Divorce	0.40	0.03
Domestic Violence	0.78	0.49
Substance Use Disorder in a Family Member	1.07	0.87
Mental Illness in a Family Member	1.96	0.63
Incarceration of a Family Member	0.37	<.01

Table 2: Logistic regression findings RQ2

Community ACEs Variable	OR	Significance
Peer Victimization	1.56	0.18
Peer Rejection	2.84	.002
Community Violence	0.41	.006
Low SES	0.65	0.21

Table 3: Logistic regression findings RQ3

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Appendix A: ACEs Measure Used in Present Study

*****[**QUESTIONS ABOUT YOUR FAMILY ENVIRONMENT**]*****

Please answer the following questions about your family growing up. Circle one answer for each question.

While you were growing up, before you were 18....	Circle Yes or No	
G-1. Did a parent or other adult in your household often or very often swear at you, insult you, put you down, or humiliate you?	Yes	No
G-2. Did a parent or other adult in your household ever act in a way that made you afraid that you might be physically hurt?	Yes	No
G-3. Did a parent or other adult in the household often or very often push, grab, slap, or throw something at you?	Yes	No
G-4. Did a parent or other adult in the household ever hit you so hard that you had marks or were injured?	Yes	No
G-5. Did an adult or person at least 5 years older than you ever touch or fondle you or have you touch their body in a sexual way?	Yes	No
G-6. Did an adult or person at least 5 years older than you ever attempt or actually have oral, anal, or vaginal intercourse with you?	Yes	No
G-7. Did you often or very often feel that no one in your family loved you or thought you were important or special?	Yes	No
G-8. Did you often or very often feel that your family didn't look out for each other, feel close to each other, or support each other?	Yes	No
G-9. Did you often or very often feel that you didn't have enough to eat, had to wear dirty clothes, and had no one to protect you?	Yes	No
G-10. Did you often or very often feel that your parents were too drunk or high to take care of you or take you to the doctor if you needed it?	Yes	No
G-11. Were your parents ever separated or divorced?	Yes	No
G-12. Was a household member depressed or mentally ill?	Yes	No
G-13. Did a household member ever attempt suicide?	Yes	No
G-14. Did you live with anyone who was a problem drinker or alcoholic?	Yes	No
G-15. Did you live with anyone who used street drugs?	Yes	No
G-16. Was your mother or stepmother often or very often pushed, grabbed, slapped, or had something thrown at her?	Yes	No
G-17. Was your mother or stepmother sometimes, often, or very often kicked, bitten, hit with a fist, or hit with something hard?	Yes	No

G-18. Was your mother or stepmother ever threatened with a gun or knife?	Yes	No
G-19. Did a household member ever go to prison?	Yes	No
G-20. Did other kids, including brothers or sisters, often or very often hit you, threaten you, pick on you or insult you?	Yes	No
G-21. Did you often or very often feel lonely, rejected or that nobody liked you?	Yes	No
G-22. Did you live for 2 or more years in a neighborhood that was dangerous, or where you saw people being assaulted?	Yes	No
G-23. Was there a period of 2 or more years when your family was very poor or on public assistance?	Yes	No

H-1. Please mark which woman primarily raised you during your first 16 years:

- Mother
 Step-Mother
 Grandmother
 Aunt
 Other Please describe your relationship to that person _____
 No woman raised me

H-2. How long did you live with that person prior to turning 17?

- My entire life
 Most of my life
 A few years
 A few days/weeks every month
 I never lived with them

H-3. Please mark which man primarily raised you during your first 16 years:

- Father
 Step-Father
 Grandfather
 Uncle
 Other Please describe your relationship to that person _____
 No man raised me

H-4. How long did you live with that person prior to turning 17?

- My entire life
 Most of my life
 A few years
 A few days/weeks every month
 I never lived with them

Appendix B: List of Measures from Data Collection

Demographics questionnaire
Sexual history form revised
Sexual fantasy questionnaire
Adverse childhood experiences scale (ACEs)
Measure of parental style (MOPS)