PATHS FROM CHILD MALTREATMENT TO SEXUAL REVICTIMIZATION:

THE ROLE OF FAMILY AND COMMUNITY CONTEXTS

by

MATTHEW WILLIAM CARLSON

(Under the Direction of Assaf Oshri)

ABSTRACT

Youth with child maltreatment histories are at significant risk for being sexually revictimized later in life. Investigations into the developmental paths from child maltreatment to sexual revictimization have primarily focused on mechanisms in these linkages. For example, depressive symptomatology and participation in risk-taking behaviors such as substance abuse and risky sex are documented to underlie associations between child maltreatment and sexual revictimization. However, this mechanistic research has been largely devoid of studies that examine the youth's developmental context in paths to sexual revictimization. In particular, few studies tested the effects of family and community environments on pathways from childhood maltreatment experiences to youths' increased sexual revictimization risk. The present dissertation includes two studies that addressed knowledge gaps on the role of family and community contexts in the development of risk for sexual revictimization among youth with child maltreatment histories. The first study tested depressive symptoms, alcohol use frequency, and number of sexual partners as underlying mechanisms in indirect paths from child maltreatment to sexual revictimization. Also, the first study examined positive parenting as a protective family factor in those links. Findings indicated that depressive symptoms mediated

the effect of child maltreatment on risk-taking behaviors, linking an indirect pathway from child maltreatment to sexual revictimization via alcohol use frequency. Additionally, positive parenting buffered the path from alcohol use frequency to sexual revictimization. The second study examined the moderating roles of community disadvantage and engagement in the association between sexual abuse and sexual revictimization in late childhood and adolescence with sexual abuse being compared to other maltreatment types. Results suggested that sexual abuse led to increased sexual revictimization risk over and above other forms of abuse and neglect. Additionally, community engagement buffered this pathway, and the protective effect of community engagement was stronger among children compared to adolescents. The findings indicated that environmental factors moderate the link between child maltreatment and sexual revictimization, which is consistent with the ecological-transactional perspective and complementary to previous research on sexual revictimization. Future research directions, connections with existing theories, and policy and intervention implications of the findings of the current two studies were discussed.

INDEX WORDS: child maltreatment; sexual revictimization; risk-taking behaviors; positive parenting; community engagement and disadvantage; ecological factors

PATHS FROM CHILD MALTREATMENT TO SEXUAL REVICTIMIZATION: THE ROLE OF FAMILY AND COMMUNITY CONTEXTS

by

MATTHEW WILLIAM CARLSON

B.S., The University of Kentucky, 2011

M.S., The University of Kentucky, 2013

A Dissertation Submitted to the Graduate Faculty of The University of Georgia in Partial Fulfillment of the Requirements for the Degree

DOCTOR OF PHILOSOPHY

ATHENS, GEORGIA

2018

© 2018

Matthew William Carlson

All Rights Reserved

PATHS FROM CHILD MALTREATMENT TO SEXUAL REVICTIMIZATION:

THE ROLE OF FAMILY AND COMMUNITY CONTEXTS

by

MATTHEW WILLIAM CARLSON

Major Professor:	Assaf Oshri
Committee:	Jerry Gale
	Kandauda Wickrama

Electronic Version Approved:

Suzanne Barbour
Dean of the Graduate School
The University of Georgia
December 2018

DEDICATION

For Carla – may the world know your glory.

ACKNOWLEDGMENTS

First and foremost, I want to thank my major professor and mentor, Dr. Assaf Oshri, for his tireless dedication to my development as a scientist. His guidance and support were integral to my growth as a researcher and the launching of my career. Additionally, he taught me the value of grit and determination as well as how to best maximize found opportunities. Last but certainly not least, Dr. Oshri's insistence on impeccable prose has certainly bolstered my writing and ability to "lead the reader by the hand."

Second, I want to thank my committee members, Dr. Jerry Gale and Dr. Kandauda Wickrama for their support of and feedback on my dissertation project as well as their other contributions to my development as a researcher inside and outside the classroom. Dr. Wickrama's patience in teaching (and re-teaching) statistical analyses as well as Dr. Gale's focused attunement to contextual factors definitively extended my scientific abilities.

Third, I want to send my thanks to the faculty, staff, and students at the University of Georgia who contributed to my career and personal development. There are far too many to name all here. Special thanks to Drs. Emilie Smith, Margaret Caughy, Steve Kogan, Maria Bermúdez, Desiree Seponski, Denise Lewis, and Jay Mancini for their support in various research projects, award proposals, and other forms of mentorship. Additionally, I would like to thank Joanne Allen, Barbara Derricottee, and Livia Wade for their tireless assistance and guidance on administrative matters, of which I certainly took advantage! To my friends and colleagues who have graduated before me, are graduating with me, and will graduate after I

leave – I truly cherished our times together and will miss our camaraderie. I look forward to reunions at professional conferences.

Fourth, I owe many thanks to the folks at Project Family, LLC for providing me with an excellent internship opportunity. Working directly with impoverished families, many of whom were involved with child protective services, changed my perspective on politics, therapy, research, and life in general. Special thanks to (soon-to-be Dr.) Melissa Forschler, Angela Muffley, Doug Morgan, and Tina Lawrence for all that they have done for me as well as the families that they serve. Additionally, I owe much gratitude to the clients who allowed me to join them on their journey to greater well-being for themselves and their families.

Lastly, I want to thank my wife, Stephanie Carlson, my son, Leroy Carlson, and my parents, Michael and Carolyn Carlson, for their contributions to my personal and professional life. Truthfully, I could not have completed this doctoral program without Stephanie's persistent support and her reminders that I work for something greater than myself. Leroy, born during the middle of the writing of this dissertation, brought a newfound joy to life that reinvigorated me during the doldrums of the "dissertating" season. I will treasure those times always. My parents, who provided me with emotional and financial support, taught me to reach for what I want and bring goodness into the world. I am forever indebted to them.

TABLE OF CONTENTS

Page

ACKNOWLEDGMENTS v

LIST OF TABLES ix

LIST OF FIGURES x

CHAPTER

1 INTRODUCTION AND OVERVIEW OF STUDIES 1

Introduction 1

Overview of Studies 11

2 PATHWAYS FROM CHILD MALTREATMENT SEVERITY TO YOUNG ADULT SEXUAL REVICTIMIZATION VIA DEPRESSION SYMPTOMS AND RISK BEHAVIORS: THE PROTECTIVE ROLE OF POSITIVE PARENTING 13

Abstract 14

Introduction 16

Methods 26

Results 35

Discussion 49

3 CHILD SEXUAL ABUSE HISTORY AS A RISK FACTOR FOR SEXUAL REVICTIMIZATION AMONG MALTREATED YOUTH: THE ROLE OF COMMUNITY CONTEXTS AND DEMOGRAPHIC FACTORS 59

Abstract 60

Introduction....62
Methods....72
Results....77
Discussion....96
4 DISCUSSION AND CONCLUSION....110
Discussion....110
Conclusion....121
REFERENCES....122

LIST OF TABLES

Page

Table 1: Bivariate Correlations, Means, and Standard Deviations of the First Study.....40

Table 2: Parameter Estimates of Direct and Indirect Effects of the First Study.....48

Table 3: Bivariate Correlations, Means, and Standard Deviations of the Second Study.....85

Table 4: Parameter Estimates of Direct and Moderation Effects of the Second Study.....95

LIST OF FIGURES

Page

Figure 1: An Ecological-transactional Model of Sexual Revictimization 10

Figure 2: Conceptual Framework for First Study 25

Figure 3: Bar Graph of Child Maltreatment and Sexual Revictimization Rates 39

Figure 4: The Direct Effect from Child Maltreatment Severity to Sexual Revictimization 41

Figure 5: The Indirect Effect from Child Maltreatment Severity to Sexual Revictimization via Depressive Symptoms 42

Figure 6: The Indirect Effect from Child Maltreatment Severity to Sexual Revictimization via Depressive Symptoms, Number of Sexual Partners, and Alcohol Use Frequency 43

Figure 7: The Moderating Effect of Positive Parenting on the Link between Number of Sexual Partners and Sexual Revictimization 44

Figure 8: Probing of the Moderation of the Link between Number of Sexual Partners and Sexual Revictimization by Positive Parenting 45

Figure 9: The Moderating Effect of Positive Parenting on the Link between Alcohol Use Frequency and Sexual Revictimization 46

Figure 10: Probing of the Moderation of the Link between Alcohol Use Frequency and Sexual Revictimization by Positive Parenting 47

Figure 11: Conceptual Framework for Second Study 71

Figure 12: Bar Graph of Sexual Abuse and Sexual Revictimization Rates with Full Sample 82

Figure 13: Bar Graph of Sexual Abuse and Sexual Revictimization Rates with Girls and Boys 83

Figure 14: Bar Graph of Sexual Abuse and Sexual Revictimization Rates with Children and Adolescents 84
Figure 15: The Direct Link between Sexual Abuse and Sexual Revictimization 86
Figure 16: The Moderating Effect of Community Disadvantage 87
Figure 17: Moderation of the Link between Sexual Abuse and Sexual Revictimization by Community Disadvantage 88
Figure 18: Gender Differences in the Moderation of the Link between Sexual Abuse and Sexual Revictimization by Community Disadvantage 89
Figure 19: Age Differences in the Moderation of the Link between Sexual Abuse and Sexual Revictimization by Community Disadvantage 90
Figure 20: The Moderating Effect of Community Engagement 91
Figure 21: Moderation of the link between Sexual Abuse and Sexual Revictimization by Community Engagement 92
Figure 22: Gender Differences in the Moderation of the link between Sexual Abuse and Sexual Revictimization by Community Engagement 93
Figure 23: Age Differences in the Moderation of the link between Sexual Abuse and Sexual Revictimization by Community Engagement 94

CHAPTER 1

INTRODUCTION AND OVERVIEW OF STUDIES

Introduction

This dissertation primarily focuses on the contextual factors that affect the link between child maltreatment and sexual revictimization. The first chapter introduces sexual revictimization as a public health problem, defines and briefly discusses risk factors for sexual revictimization including child maltreatment history, and examines the link between child maltreatment and sexual revictimization from an ecologically-focused perspective. Next, two complementary studies are conducted on the links between child maltreatment and sexual revictimization. First, a longitudinal sample of community young adult women is used to examine the underlying mechanisms between child maltreatment and sexual revictimization. The protective effect of positive parenting is tested. This study is followed by an investigation into the effect of sexual abuse compared to other forms of child maltreatment on sexual revictimization in late childhood and adolescence. A national, longitudinal sample of children and families involved with child protective services is used for this study. The role of community context (i.e., community disadvantage and engagement) in moderating the risk of sexual revictimization is examined. The final chapter reviews the findings of the two studies, proposes future research directions, and discusses policy- and intervention-related implications.

The Scope of the Problem

Women with child maltreatment histories are at heightened risk for subsequent sexual violence or *sexual revictimization* prior to and during adulthood (Krahe, 2000; Krahe & Berger,

2017; Nelson et al., 2002; Rich, Gidycz, Warkentin, Loh, & Weiland, 2005; Roodman & Clum, 2001; Siegel & Williams, 2003; Smith, White, & Holland, 2003). Sexual revictimization has become a noted public health issue due to its health-related consequences and economic impact on society. Sexually revictimized women develop more mental and physical health problems compared to women who solely have been maltreated in childhood or sexually victimized in adulthood (Balsam, Lehavot, & Beadnell, 2011; Campbell, Greeson, Bybee, & Raja, 2008; Kearns & Calhoun, 2010; Miner, Flitter, & Robinson, 2006; Walsh et al., 2012, 2014). Mental health problems among sexually revictimized women range from amnesia (Wager, 2013) and suicidality (Pico-Alfonso et al., 2006) to symptoms of posttraumatic stress disorder (Ullman, Najdowski, & Filipas, 2009), depression (Casey & Nurius, 2005), and anxiety (Kimerling, Alvarez, Pavao, Kaminski, & Baumrind, 2007). Sexual revictimization also leads to behavioral disturbances such as substance use problems (Walsh et al., 2014) and engagement in high-risk sexual behaviors such as prostitution (Miner et al., 2006). Physical health sequelae of sexual revictimization include poor self-reported health, chronic health problems, and heightened risk of contracting sexually transmitted infections (Miner et al., 2006). Lastly, sexually revictimized women report reproductive issues such as difficulty conceiving (West, Williams, & Siegel, 2000) and sexual dysfunction (Maker, Kemmelmeier, & Peterson, 2001). In addition to the toll on women's health, sexual revictimization has a detrimental economic impact on society. Current estimates suggest that each incident of sexual revictimization incurs a financial burden of $150,000 to taxpayers after accounting for costs such as survivors' lost wages as well as their needed interventions and treatments (DeLisi et al., 2010). Though most research on the prevalence and consequences of sexual revictimization has been conducted with adult women (Walker, Freud, Ellis, Fraine, & Wilson, 2017), some research suggests that adolescent and

young adult men and women are at particular risk for sexual revictimization (Aosved, Long, & Voller, 2011; Fargo, 2009; Miron & Orcutt, 2014), though more research is needed to support these emerging findings. Thus, the sexual revictimization of young persons is a significant public health concern with substantial financial costs for society, rendering it an important area of research that can inform vital preventive interventions.

Sexual Revictimization

Definition. There are several definitions for sexual revictimization in the existing literature. Sexual revictimization has been defined as a sexual assault upon a person who has already been a victim of sexual trauma, mainly child sexual abuse (Classen, Palesh, & Aggarwal, 2005). Other studies have utilized definitions such as when a child sexual abuse survivor subsequently experiences physical or sexual victimization (Papalia et al., 2017) or becomes the victim of a crime (Finkelhor, Ormrod, & Turner, 2007b). Additionally, experiencing child maltreatment multiple times has also been termed revictimization (Cuevas, Finkelhor, Clifford, Ormrod, & Turner, 2010). Based on foundational research on sexual revictimization (Arata & Lindman, 2002), the current study uses the following definition of sexual revictimization: sexual violence to a person who was previously abused and/or neglected as a child.

Prevalence. Sexual revictimization is remarkably prevalent in the United States. Half of all maltreated women will be sexually revictimized (Classen et al., 2005; Fargo, 2009; Finkelhor et al., 2007b; Wager, 2013; Walker et al., 2017). Among women who were sexually abused as children, approximately one-half to two-thirds will be sexually revictimized at some point later in life (Classen et al., 2005; Walker et al., 2017). Considering that nearly one-fourth of women have child maltreatment histories (Finkelhor, Turner, Shattuck, & Hamby, 2015), these numbers account for a substantial portion of the general population of women. Complementary sexual

revictimization rates for males are not well understood. Emerging research showed that sexually abused boys are sexually revictimized at similar rates compared to sexually abused girls (Aosved et al., 2011), though boys compared to girls are less likely to be sexually abused as children in the first place (U.S. Department of Health & Human Services, 2018). Also, men are less likely to be sexually assaulted in adulthood compared to women (Tewksbury, 2007; Weiss, 2010).

Risk Factors for Sexual Revictimization

Child maltreatment. Past studies showed that maltreated youth are at increased risk for sexual violence compared to non-maltreated youth (Arata, 2002). As previously stated, studies suggest that half of all maltreated women will be sexually revictimized (Classen et al., 2005; Fargo, 2009; Finkelhor et al., 2007b; Wager, 2013; Walker et al., 2017). However, child maltreatment is made up of several types of abuse and neglect, and there are distinct differences in these forms of maltreatment that may have implications on downstream risk for sexual revictimization.

Child maltreatment definitions. Child maltreatment is considered to be a negative act or lack of a positive act by a parent or caregiver that leads to a child being harmed or deprived in some way (U.S. Department of Health & Human Services, 2018). Child maltreatment is classified into subtypes including physical, sexual, and emotional abuse as well as neglect. Specific definitions of these maltreatment subtypes come from the Maltreatment Classification System (Manly, Cicchetti, & Barnett, 1994), which was developed to code official documents from child maltreatment investigations into child abuse and neglect information that could be

used for research purposes. The Maltreatment Classification System delineates specific child abuse and neglect details such as maltreatment type, severity, duration, and perpetrator identity.

Physical abuse. Physical abuse is non-accidental physical injury to a child by a caregiver and includes acts such as punching, kicking, shoving, and other injury-inflicting behaviors (Manly et al., 1994). Severe and intentional physical injury is considered easily classifiable as abuse, though lesser forms of physical abuse are harder to distinguish due to the general acceptance of corporal punishment (i.e., "spanking") (Gershoff, 2002; Straus & Stewart, 1999). Excessive corporal punishment is considered physical abuse if there is a resulting injury caused by the disciplinary acts (Manly et al., 1994).

Sexual abuse. Child sexual abuse is defined as a completed or attempted sexual contact between a child and an offender such as a caregiver or an unrelated adult where the offender gains sexual satisfaction from the sexually abusive activities (Manly et al., 1994). Sexual abuse includes acts ranging in severity from showing pornography to a child to forcing a child to participate in sexual intercourse. Sexual abuse can be committed by perpetrators of heterogeneous relational closeness to the child such as trusted family members or total strangers (M. Cyr, Wright, McDuff, & Perron, 2002; Ketring & Feinauer, 1999; Ullman, 2007). This variation in perpetrator identity is a unique aspect of sexual abuse as other forms of maltreatment are usually committed by parents or other relationally close caregivers (U.S. Department of Health & Human Services, 2018).

Emotional maltreatment. Emotional maltreatment, which is considered to be the hardest of maltreatment subtypes to operationalize (Glaser, 2002), occurs when caregivers violate or do not meet a child's basic emotional needs (Manly et al., 1994). Interpersonal threats to safety, lack of acceptance, and withholding age-appropriate autonomy are forms of emotional

maltreatment. Some definitions of emotional maltreatment separate emotional abuse and emotional neglect, which are respectively defined as high levels of negativity towards the child and emotional unavailability (Glaser, 2002).

Neglect. Neglect is the absence of necessary and developmentally appropriate caregiving (Mennen, Kim, Sang, & Trickett, 2010). Based on the Maltreatment Classification System, there are two major child neglect subtypes: supervisory and physical neglect. Supervisory neglect refers to the failure to monitor a child at a developmentally appropriate level and is the most common subtype of neglect (Snyder & Merritt, 2015). Physical neglect is the lack of attendance to a child's physical needs such as food, clothing, and shelter (Manly et al., 1994). Neglect is considered an act of omission (i.e., something needed is withheld) whereas other forms of maltreatment such as child physical and sexual abuse are considered acts of commission (i.e., something harmful is added) (Dubowitz, Papas, Black, & Starr, 2002). Neglect is associated with poverty more so than other forms of maltreatment (Jonson-Reid, Drake, & Zhou, 2013).

Prevalence. Many children in the United States experience child abuse and neglect, and recent estimates suggest that nearly one in ten children in the United States are maltreated every year (Finkelhor, Turner, Ormrod, & Hamby, 2009). In 2016, 7.4 million children were reported to child protective services due to maltreatment allegations (U.S. Department of Health & Human Services, 2018). Neglect is the most prevalent form of child maltreatment, constituting nearly 75% of all instances of reported cases (U.S. Department of Health & Human Services, 2018). Physical abuse is the second most common form of child maltreatment, making up nearly 20% of reports of child maltreatment (U.S. Department of Health & Human Services, 2018). The third most common form of child maltreatment is sexual abuse, which represents 8.5% of child maltreatment reports (U.S. Department of Health & Human Services, 2018). Girls are

more likely to experience child sexual abuse than boys as 20% of all girls compared to 5% of all boys are sexually abused (Finkelhor, Shattuck, Turner, & Hamby, 2014). Prevalence rates for emotional maltreatment are difficult to determine as not all states legally recognize emotional maltreatment as a form of child abuse and neglect (Hamarman, Pope, & Czaja, 2002) and some studies suggest that emotional maltreatment is more common than current estimates indicate due to lack of consistency in official reporting (Hamarman et al., 2002). Only 2.3% of maltreatment claims are made solely for emotional maltreatment, though emotional maltreatment is often reported along with other forms of abuse or neglect (U.S. Department of Health & Human Services, 2018). Notably, many children suffer from multiple types of child maltreatment. Official estimates indicated that 14% of reports to child protective services are for more than one maltreatment type (U.S. Department of Health & Human Services, 2018). Other documentation suggested that youth are more likely to experience more than one maltreatment type over the course of their childhood compared to experiencing only one type of child maltreatment (Arata, Langhinrichsen-Rohling, Bowers, & O'Farrill-Swails, 2005; Finkelhor, Ormrod, & Turner, 2007a).

Risk-taking behaviors and sexual revictimization. Risk-taking behaviors are risky activities that youth engage in with the anticipation of immediate payoff while discounting the potential consequences to health and well-being (e.g., unprotected sex, substance use) (Irwin & Millstein, 1992; Steinberg, 2008). These activities are commonly argued as crucial behavioral mechanisms in paths from child maltreatment to sexual revictimization (Bramsen et al., 2013). Risky sexual behaviors (Fargo, 2009; Ullman & Vasquez, 2015) such as "hooking-up" (Franklin, 2010; Testa, Hoffman, & Livingston, 2010) increase sexual revictimization risk, particularly when engaging in such activities with strangers (Testa, Hoffman, & Livingston, 2010).

Substance use has also been determined to increase the likelihood of sexual revictimization (Combs-Lane & Smith, 2002), particularly so for alcohol use (Abbey, 2002; Mohler-Kuo, Dowdall, Koss, & Wechsler, 2004).

Developmental risk factors for sexual revictimization prior to adulthood. Children, adolescents, and young adults are at risk for sexual violence due to distinct but normative aspects of human development. For example, children do not always view sexual advances as threats (Ruggiero, McLeer, & Dixon, 2000) and cannot physically defend themselves from older perpetrators (Finkelhor, 1993). Furthermore, they are particularly vulnerable to being victimized when they lack of parental monitoring (Fleming, Mullen, & Bammer, 1997). Among adolescents, executive functioning is still consolidating, and the lack of forward-thinking capacities undermines youths' ability to inhibit compulsions and avoid dangerous scenarios (Steinberg, 2005). Also, adolescents seek autonomy from their families, making it more difficult for parents to monitor youths' risk-taking behaviors, and they attain sexual maturation and gain access to drugs and alcohol (Steinberg & Morris, 2001). Lastly, young adults are also at risk for sexual revictimization due to a culture of normative engagement in substance abuse and risky sexual behaviors (Rolison & Scherman, 2003).

An Ecological-transactional Model of Sexual Revictimization

Emerging theoretical and empirical work on youths' developmental contexts suggests that family and community environments encompass the risks imposed by individuals' child maltreatment histories and risk-taking behaviors on their increased sexual revictimization likelihood (Obasaju, Palin, Jacobs, Anderson, & Kaslow, 2009; Oshima, Jonson-Reid, & Seay, 2014). The ecological-transactional model of child maltreatment (Cicchetti & Valentino, 2006) provides a theoretical framework that recognizes the context as an important component of

youths' development of sexual revictimization risk. According to this perspective, maltreated youth develop within contexts at levels of varying relational proximity to victims (e.g., individual, family, community). At the individual level, factors such as youths' child maltreatment history, depressive symptomology, and engagement in risk-taking behaviors incur risk for sexual revictimization in the near future. The individual level of the youths' developmental context is encircled by family and community environments. These environments are composed of vulnerabilities and strengths (e.g., parenting behaviors, community environment) that influence pathways to healthy developmental outcomes for youth (Cicchetti & Valentino, 2006). As maltreated children and adolescents mature, they interact with and are influenced by these contexts, and the balance of contextual risks and protections incurs downstream effects on youths' developmental outcomes. Enduring individual-level vulnerabilities such as previous exposure to child abuse and neglect exhibit lasting effects on developmental risks (e.g., psychopathology, risk-taking behaviors) that increase youths' susceptibility to poor adaptation (e.g., sexual revictimization). The impact of individuals' enduring vulnerabilities can be amplified by harsh and impoverished community environments. Alternatively, the presence of protective factors such as parents' use of positive caregiving behaviors and a supportive community can buffer the influence of challenges (e.g., history of child maltreatment, psychopathology, risk-taking behaviors) on youths' ultimate developmental outcomes (e.g., risk for being sexually revictimized) (Cicchetti & Valentino, 2006). The current dissertation derives hypotheses that are informed by the ecological-transactional model. Accordingly, two empirical studies are conducted to test family and community environments as moderating contexts of paths from child maltreatment to sexual revictimization. See Figure 1 for a diagram of the theoretical framework.

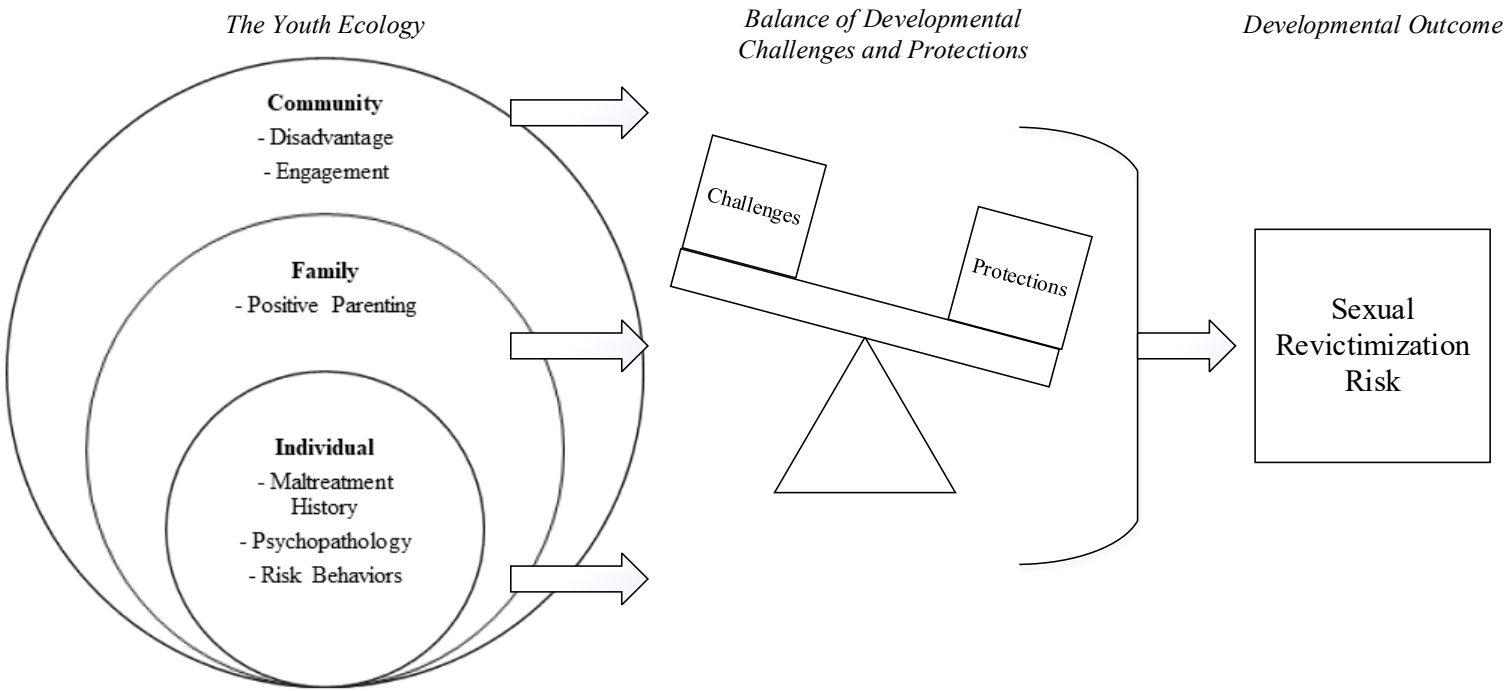

Figure 1. An Ecological-transactional Model of Sexual Revictimization.

Overview of Studies

The current dissertation aims to fill knowledge gaps in research on sexual revictimization. Particular focus is given to the family and community contexts in which maltreated youths' sexual revictimization risk develops (Arata, 2002; Grauerholz, 2000; Macy, 2008; Messman-Moore & Long, 2003). Two investigations are conducted to achieve this aim. The first study examines the role of the family context in paths from child maltreatment to sexual revictimization via risk mechanisms in young adulthood. The second study tests the influence of community contexts on the association between child sexual abuse compared to other forms of child maltreatment and sexual revictimization in late childhood and adolescence. The following overarching aims and hypotheses are addressed in these two studies:

Overarching Aim 1 (Study 1): To examine the association between child maltreatment severity and sexual revictimization via risk mechanisms in young adulthood as well as the protective role of positive parenting in that association.

Overarching Hypothesis 1a: Youth with greater child maltreatment severity compared to youth with lesser child maltreatment severity will evince increased sexual revictimization risk via risk mechanisms.

Overarching Hypothesis 1b: Youth with more experiences of positive parenting will show reduced effects of risk mechanisms on sexual revictimization compared to youth with fewer experiences of positive parenting.

Overarching Aim 2 (Study 2): To study the impact of childhood sexual abuse compared to other forms of child maltreatment on sexual revictimization in childhood and adolescence as well as the influences of community disadvantage and community engagement on that link.

Overarching Hypothesis 2a: Sexually abused youth will have an increased risk for sexual revictimization compared to youth who experienced other forms of child maltreatment.

Overarching Hypothesis 2b: Sexually abused youth living in more disadvantaged communities will evince an increased link between sexual abuse and sexual revictimization in childhood and adolescence compared to sexually abused youth living in less disadvantaged communities.

Overarching Hypothesis 2c: Sexually abused youth living in more engaged communities will see a decreased link between sexual abuse and sexual revictimization in childhood and adolescence compared to sexually abused youth living in less engaged communities.

CHAPTER 2

PATHWAYS FROM CHILD MALTREATMENT SEVERITY TO YOUNG ADULT SEXUAL REVICTIMIZATION VIA DEPRESSIVE SYMPTOMS AND RISK BEHAVIORS: THE PROTECTIVE ROLE OF POSITIVE PARENTING[1]

[1] Carlson, M. W. & Oshri, A. To be submitted to *Journal of Family Psychology*.

Abstract

Objectives

The primary aim of this study was to examine the direct and indirect links between child maltreatment severity, depressive symptoms, risk behaviors (i.e., alcohol use frequency, number of sexual partners), and sexual revictimization among young adult women. The secondary aim was to test the protective role of positive parenting in the indirect paths from child maltreatment severity to sexual revictimization.

Methods

Community young adult females ($N = 59$; $M_{age} = 21.02$, $SD_{age} = 2.55$; 67.80% Caucasian) provided longitudinal data at three data collection points with each data collection point separated by 12 months. These participants self-reported data on childhood experiences of maltreatment and positive parenting as well as their recent depressive symptoms, number of sexual partners, alcohol use frequency, and whether they had been sexually revictimized in the past year. Mediation and moderation analyses were performed within a structural equation modeling framework to test the hypotheses.

Results

The results indicated that the severity of child maltreatment experiences significantly increased sexual revictimization risk via depressive symptoms and alcohol use frequency but not via depressive symptoms and number of sexual partners. Positive parenting significantly buffered paths from child maltreatment severity to sexual revictimization via alcohol use frequency such that young adults with greater positive parenting had reduced risk for sexual revictimization despite their increased alcohol use frequency.

Conclusions

Young adult women with severe child maltreatment histories are at significant risk for sexual revictimization. Future research can use the current results as an impetus to examine how depressive symptoms influence sexual revictimization likelihood among maltreated youth. Also, investigations can examine the mechanisms that underlie the protective effects of positive parenting on sexual revictimization risk development. Preventive intervention programs that aim to reduce the risk for sexual revictimization among women with child maltreatment histories can target depressive symptoms and alcohol use frequency to avert this risk. Similarly, family-based prevention programs for at-risk children and adolescents can increase parents' usage of positive parenting to reduce the link between alcohol use frequency and sexual revictimization among youth. Policymakers can be aware of the association between child maltreatment severity and sexual revictimization, and they can seek to fund preventative efforts to reduce the burden of sexual revictimization on young adults and greater society.

Introduction

Gaps in Research and Aims of the Current Study

Research has documented that risk-taking behaviors underlie the association between child maltreatment and increased risk for sexual revictimization, particularly among women (Messman-Moore & Long, 2003; Testa, Hoffman, & Livingston, 2010). However, less is understood about the reasons why maltreated youth engage in risk-taking behaviors as well as the factors that buffer the impact of risk-taking on sexual revictimization. Reports on the link between early adversity and risk-taking behaviors suggest that youth exposed to child maltreatment are at risk for depressive affect (Cooper, Agocha, & Sheldon, 2000; Cooper, Frone, Russell, & Mudar, 1995; Cooper, Shapiro, & Powers, 1998; Khantzian, 1985; Wills, Sandy, Shinar, & Yaeger, 1999). Youth with heightened depressive symptoms are documented to participate in a range of risk-taking behaviors such as risky sex (Shrier et al., 2012; Shrier, Koren, Aneja, & De Moor, 2010) and substance use (Hussong, Hicks, Levy, & Curran, 2001; Simons, Gaher, Correia, Hansen, & Christopher, 2005). It is hypothesized that youth engage in alcohol use (Katon et al., 2010) and sexual risk-taking (Lehrer, Shrier, Gortmaker, & Buka, 2006) to regulate the negative affect of depressive-related symptoms (Cooper et al., 2000, 1998; Wills et al., 1999). However, this perspective on youths' engagement in risk-taking behaviors for the purpose of regulating depressive affect has not been applied to the field of sexual revictimization, and the mechanisms in paths from child maltreatment to risk-taking behaviors to sexual revictimization are not well delineated.

Little is known about the protective factors that can buffer the development of sexual revictimization likelihood via risk mechanisms and ameliorate the impact of this public health problem. One viable option for reducing sexual revictimization probability includes leveraging

protective parenting practices. The ecological-transactional model purports that resources within the family environment can counterbalance the negative impact of developmental risks (e.g., risk behaviors) and assist youth in reaching adaptive outcomes (e.g., sexual revictimization avoidance) (Cicchetti & Valentino, 2006). Accordingly, investigations previously documented that supportive caregiving behaviors reduced the development of risk-taking activities that place maltreated youth at risk for sexual revictimization (Hummel, Shelton, Heron, Moore, & van den Bree, 2013; B. C. Miller, Benson, & Galbraith, 2001). Positive parenting has already been integrated into intervention work with parents of maltreated children (Sanders, 1999) and may serve as a viable mechanism for large-scale interventions seeking to reduce sexual revictimization risk among such vulnerable youth. However, the usefulness of positive parenting in buffering sexual revictimization likelihood development has yet to be tested.

The current study aims to fill the aforementioned gaps in research on sexual revictimization. The role of risk-taking behaviors in the link between child maltreatment and sexual revictimization has been examined, though the reason why maltreated youth engage in risk-taking behaviors in the first place is not well understood. Also, more research on the protective factors that can reduce sexual revictimization risk is needed. In this study, longitudinal data from a sample of community young adult women who did not attend college are used to (a) establish the direct path from child maltreatment severity to sexual revictimization, (b) test the mediating effect of depressive symptoms in the association between child maltreatment severity and sexual revictimization, (c) investigate the indirect effects of depressive symptoms on sexual revictimization via sexual partners and alcohol use, and (d) examine the direct effect of positive parenting on sexual revictimization as well protective

effects on paths from number of sexual partners and alcohol use frequency to sexual revictimization.

Child Maltreatment and Sexual Revictimization: Developmental Pathways

Contextual-developmental models such as the ecological-transactional model (Cicchetti & Valentino, 2006) can be used to conceptualize how child maltreatment places youth at risk for future negative events such as sexual revictimization (Grauerholz, 2000; Pittenger, Huit, & Hansen, 2016). Specifically, experiencing child maltreatment causes downstream cascades of maladaptations such as lack of trust towards others, altered perceptions of healthy relationships, and mental health problems (Oshri, Sutton, Clay-Warner, & Miller, 2015; Scott et al., 2011; Testa, VanZile-Tamsen, & Livingston, 2005). These negative developmental changes increase the likelihood of youths' engagement in risky behaviors such as sexual risk-taking (Noll, Shenk, & Putnam, 2009; Oshri et al., 2015; Yoon, Voith, & Kobulsky, 2018) and substance use (Duncan et al., 2008; Fergusson, Boden, & Horwood, 2008; Kilpatrick, Howlett, Sedgwick, & Ghodse, 2000; Nelson et al., 2002). In turn, the development of risk-taking behavior participation increases youths' probability of being sexually revictimized (Cuevas et al., 2010; Fargo, 2009; Ullman & Vasquez, 2015). From an ecological-transactional perspective, youth who experience multiple developmental challenges to positive adaptation and lack a counterweight of protective factors will likely be at increased risk for being sexually revictimized (Cicchetti & Valentino, 2006; Grauerholz, 2000).

Child Maltreatment, Depressive Symptoms, and Sexual Revictimization

Child maltreatment disproportionately leads to the development of psychopathology symptoms in adolescence (Nanni, Uher, & Danese, 2012; Vranceanu, Hobfoll, & Johnson, 2007), and this symptomology may be responsible in part for maltreated youths' increased risk

for sexual revictimization. Abused and neglected youth feel shame and guilt, which can eventually develop into depressive symptoms (Stuewig & McCloskey, 2005). Depressive symptomology disrupts the mental faculties needed to avoid dangerous situations, and visible symptoms inform potential perpetrators that the individual may be particularly vulnerable (Marx, Heidt, & Gold, 2005), placing depressed youth at increased risk for sexual revictimization. Indeed, mental health problems such as emotion dysregulation (Ullman & Vasquez, 2015), psychological distress (Cuevas et al., 2010), poor self-esteem (Krahe & Berger, 2017), and post-traumatic stress disorder (Dietrich, 2007) increase the likelihood of sexual revictimization among women. Depressive symptoms are documented to mediate the link between child maltreatment and sexual revictimization among college women (Miron & Orcutt, 2014), but studies have yet to identify this association among non-college samples.

Child Maltreatment, Depressive Symptoms, Risk-Taking Behaviors, and Sexual Revictimization

Risk-taking behaviors have been empirically documented as mechanisms in paths from child maltreatment to sexual revictimization (Bramsen et al., 2013). For example, women who participate in risky sexual activity are at increased risk for sexual revictimization (Fargo, 2009; Ullman & Vasquez, 2015). College students who have more sexual partners (Franklin, 2010; Testa, Hoffman, & Livingston, 2010), particularly strangers (Testa, Hoffman, & Livingston, 2010), are also at significant for sexual revictimization. Additionally, alcohol use mediates the link between child maltreatment and sexual revictimization (Combs-Lane & Smith, 2002) and is the most common “date rape drug” among adolescents and young adults (Abbey, 2002; Mohler-Kuo et al., 2004). Consuming alcohol leads to intoxication and attendant vulnerability to sexual revictimization via reduced perception of risk (Norris, Nurius, & Graham, 1999) and greater

engagement in risky situations (Combs-Lane & Smith, 2002) such as unprotected sex (George et al., 2014). Additionally, alcohol use decreases women's confidence in (Corbin, Bernat, Calhoun, McNair, & Seals, 2001) and their likelihood of using sexual refusal strategies (Pumphrey-Gordon & Gross, 2007), limiting their ability to avoid undesired sexual encounters.

The mechanisms underlying associations between child maltreatment, risk-taking behaviors, and sexual revictimization have not been well empirically identified, though affective forms of psychopathology such as depressive symptomology are hypothesized to indirectly link child maltreatment to participation in risk behaviors (Nanni et al., 2012; Vranceanu et al., 2007). Maltreated youth who evince depressive symptoms struggle with constant feelings of negative emotionality and experience an inability to feel positive emotions (Thapar, Collishaw, Pine, & Thapar, 2012). Eventually, these youth engage in risk-taking behaviors such as risky sex (Shrier et al., 2012, 2010) and substance use (Hussong et al., 2001; Simons et al., 2005) with the expectation that these activities will give them respite from negative affect by providing them with positive, euphoric feelings (Cooper et al., 2000, 1995, 1998; Khantzian, 1985; Wills et al., 1999). Previous research showed that depressed youth engaged in risky sex (Marchand & Smolkowski, 2013) and alcohol use (Hussong & Chassin, 1994; Katon et al., 2010; Marmorstein, 2009) more than non-depressed youth specifically for the purpose of coping with their depressive symptoms (Dawson, Shih, de Moor, & Shrier, 2008; Hussong et al., 2001; Oshri, Tubman, & Jaccard, 2011; Simons et al., 2005). These findings support affect-regulation and self-medication perspectives on risk-taking behaviors, but this affective hypothesis on why maltreated youth engage in increased risk-taking behaviors has not been tested in pathways from child maltreatment to sexual revictimization.

Sexual Revictimization: Familial Contexts

The family context may serve as a protective contextual factor in paths from child maltreatment to sexual revictimization. Positive parenting, referred to here as the use of warm interactions, supportiveness, and balanced discipline (Kotchick & Forehand, 2002), buffers the development of risk-taking among youth (Cleveland et al., 2005; O'Donnell et al., 2008). For example, positive parenting diminishes youths' engagement in risky sexual behaviors, including having sex with multiple sexual partners (O'Donnell et al., 2008; Parkes, Henderson, Wight, & Nixon, 2011; Rodgers & McGuire, 2012). Additionally, positive parenting reduces youths' openness to unhealthy engagement in substance use (Bronte-Tinkew, Moore, & Carrano, 2006; Cleveland et al., 2005) by bolstering their resistance to peer pressure (Parker & Benson, 2004) and increasing their self-regulation (Fagan, Van Horn, David Hawkins, & Jaki, 2013). Maltreated youth also experience reductions in substance use due to the beneficial effects of positive parenting (Perkins & Jones, 2004; Perkins, Luster, & Jank, 2002). Despite the large body of literature on the protective effects of positive parenting on risk-taking behaviors, whether positive parenting is related to the associations between risk-taking behaviors and sexual revictimization among young adulthood remains to be tested.

Ecological frameworks purport that contextual factors such as the family system modulate youths' risk for sexual revictimization (Grauerholz, 2000; Pittenger et al., 2016). According to the ecological-transactional model (Cicchetti & Valentino, 2006), youths' developmental trajectories are embedded within a larger context of proximal risks (e.g., child maltreatment history, depressive symptoms, risk behaviors) and distal contextual protections (e.g., positive parenting). These factors contribute to youths' overall balance of environmental challenges and supports, which culminate into their likelihood for proper developmental

adaptation (e.g., avoiding sexual revictimization). Though factors at more proximal levels of the youth ecology (e.g., individual behaviors) are believed to have the strongest influence on developmental outcomes (e.g., sexual revictimization), surrounding environmental factors (e.g., supportive caregiving) can modify the final impact of these individual risks on youth adaptation. Should positive parenting be a long-lasting buffer to developmental maladaptations such as risk for sexual revictimization, beneficial effects could still be evident long after youth have separated from their caregivers (e.g., in young adulthood).

The Aims of the First Study

Child maltreatment is documented to incur increases in forms of psychopathology such as depressive symptoms and risk-taking behaviors such as substance use and risky sexual behaviors as well as risk for sexual revictimization. The current investigation aims to generate knowledge on the risk for sexual revictimization that is instigated by severe child maltreatment experiences and actualized via increased depressive symptoms, greater alcohol use frequency, and more sexual partners. Additionally, protective capacities of positive parenting on sexual revictimization are tested. Based on research on sexual revictimization (Messman-Moore & Long, 2003; Testa, Hoffman, & Livingston, 2010), it was hypothesized that greater child maltreatment severity would be associated with increased sexual revictimization likelihood. Depressive symptoms, a recently identified mechanism in the link between child maltreatment and sexual revictimization among college students (Miron & Orcutt, 2014), were expected to mediate the effect of child maltreatment severity on increased sexual revictimization risk. Based on affect-regulation and self-medication perspectives as well as research detailing associations between child maltreatment, depressive symptoms, risk-behavior development, and sexual revictimization among abused and neglected youth (Bramsen et al., 2013; Combs-Lane & Smith,

2002; Cooper et al., 2000, 1995, 1998; Franklin, 2010; Khantzian, 1985; Testa, Hoffman, & Livingston, 2010; Wills et al., 1999), it was hypothesized that depressive symptoms would mediate the effects of child maltreatment severity on risk-taking behaviors and that risk-taking behaviors would increase the probability of sexual revictimization. Lastly, the current study investigated the direct preventative role of positive parenting on sexual revictimization risk development as well as its buffering impact on the links between risk behaviors and sexual revictimization. Past studies suggested that positive caregiving practices reduce risk-taking behaviors that ultimately place youth at heightened likelihood of sexual revictimization (Kotchick, Shaffer, Forehand, & Miller, 2001), though few studies have examined the role of positive parenting in the reduction of sexual revictimization risk, particularly among maltreated youth. The specific aims and hypotheses of the current study follow (see Figure 2 for a conceptual model):

Aim 1: To study the influence of child maltreatment severity on sexual revictimization among young adult girls.

Hypothesis 1: Young adult women with more severe maltreatment histories will be at increased risk for sexual revictimization.

Aim 2: To examine the mediating role that depressive symptoms play in the link between severity of child maltreatment and sexual revictimization.

Hypothesis 2: Young adult women evince an indirect pathway from child maltreatment severity to increased sexual revictimization risk via depressive symptoms.

Aim 3: To investigate the indirect influence of risk-taking behaviors in the path from depressive symptoms to sexual revictimization.

Hypothesis 3a: Young adult women with greater depressive symptoms will have more sexual partners, which will mediate the link between depressive symptoms and increased sexual revictimization risk.

Hypothesis 3b: Young adult women with greater depressive symptoms will have greater alcohol use frequency, which will mediate the link between depressive symptoms and increased sexual revictimization risk.

Aim 4: To test the direct effects of positive parenting on sexual revictimization as well as the protective effects of positive parenting on the links between risk-taking behaviors and sexual revictimization.

Hypothesis 4a: Young adult women with more experiences of positive parenting will evince reduced sexual revictimization risk.

Hypothesis 4b: Young adult women with more experiences of positive parenting will see a reduced association between number of sexual partners and increased sexual revictimization risk.

Hypothesis 4c: Young adult women with more experiences of positive parenting will have a reduced association between alcohol use frequency and increased sexual revictimization risk.

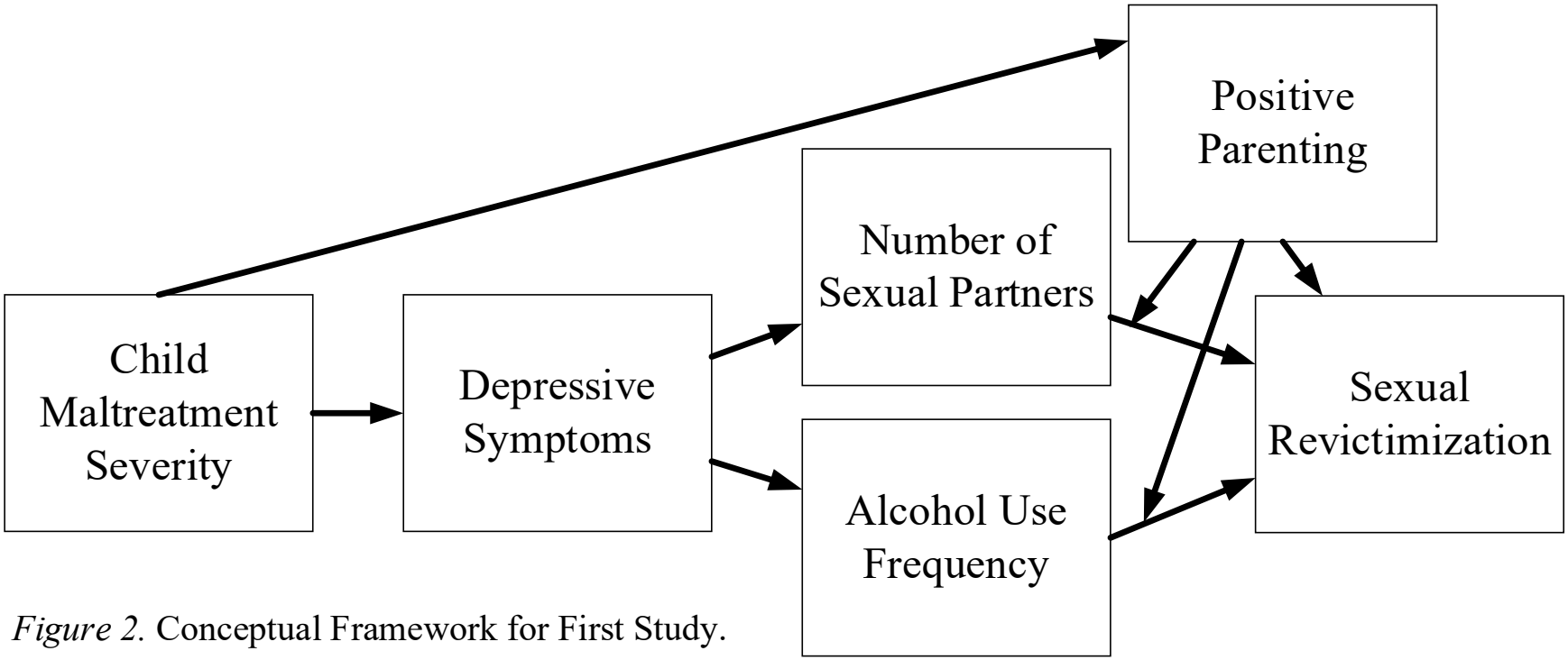

Figure 2. Conceptual Framework for First Study.

Methods

Sample

Data were reported by young adults with and without child maltreatment histories. Only young adults who did not attend college after high school were allowed to participate. For the current study, the sample was composed of 59 young adult females (65.50% white; M_{age} = 23.10, *SD* = 2.55) who were predominately low-income (*M* = $17,069 yearly earned income). Data were collected at three time points: baseline (Wave 1), 12-months post-baseline (Wave 2), and 24-months post-baseline (Wave 3).

Procedures

Baseline (Wave 1). Participants were recruited either by online postings or paper flyers passed out by research assistants at community locations. Then participants attended in-person assessments at a research lab to provide their baseline data. They completed questionnaires via a private computer-administered questionnaire, providing data on child maltreatment severity, positive parenting, depressive symptoms, and baseline reports of alcohol use frequency and number of sexual partners.

Follow-up (Waves 2 & 3). For follow-up waves, participants were alerted of their eligibility for a new survey by phone and were provided with instructions for completing the questionnaires. Online surveys were administered to the participants via email. The follow-up assessments were typically completed in less than 30 minutes. For those that did not complete the survey upon the initial notification, there were weekly attempts made to contact those individuals to encourage their participation in the survey. The first follow-up assessment (i.e., Wave 2) gathered updated information on alcohol use frequency and number of sexual partners. The second follow-up assessment (Wave 3) collected sexual revictimization data. Upon

completion of each post-baseline data collection wave, participants received an electronic gift card as their incentive. The Institutional Review Board approved the application of the original study and Wave 2 follow-up (STUDY00001265) as well as the Wave 3 follow-up (MOD00005284).

Measures

Child maltreatment severity (Wave 1). Child maltreatment severity was assessed via the short form of the Childhood Trauma Questionnaire (CTQ-SF) (Bernstein et al., 2003; Bernstein, Ahluvalia, Pogge, & Handelsman, 1997). This 28-item scale assesses five subtypes of maltreatment: sexual abuse, physical abuse, emotional abuse, emotional neglect, and physical neglect. Each item inquired about a specific maltreatment act. Example items included the following: *Someone threatened to hurt me or tell lies about me unless I did something sexual with them* (sexual abuse), *I got hit or beaten so badly it was noticed by someone like a teacher, neighbor, or doctor* (physical abuse), *I thought that my parents wished I had never been born* (emotional abuse)*, People in my family felt close to each other* (emotional neglect; reverse-coded), and *My parents were too drunk or high to take care of the family* (physical neglect). Possible responses to each item ranged from 1 (*never true*) to 5 (*very often true*). The number of "never true" responses on the following items was tracked and used to adjust scores to account for minimization or denial of child maltreatment experiences: *There was someone in the family who helped me feel that I was important or special, I had the perfect childhood,* and *I had the best family in the world.* The total score of all maltreatment types was used for the current study such that higher scores indicated more severe child maltreatment histories. The CTQ-SF five-factor model of maltreatment has evinced good psychometric properties such as model fit, reliability, and validity (Christine, Stein, Asmundson, Mccrearyp, & Forde, 2001). Additionally,

the original factor structure has been tested and shown to be invariant among youth in different cultures (Karos, Niederstrasser, Abidi, Bernstein, & Bader, 2014; Kim, Park, Yang, & Oh, 2011; Thombs, Bernstein, Lobbestael, & Arntz, 2009), with severe psychological disorders (Spinhoven et al., 2014), and in high-risk situations (Forde, Baron, Scher, & Stein, 2012). The total score of child maltreatment severity evinced good reliability at the subscale-level (α = .78). The subscales all evinced excellent reliability at the item-level (sexual abuse: α = .96, physical abuse: α = .88, emotional abuse: α = .89, emotional neglect: α = .91, physical neglect: α = .82). For descriptive and display purposes only, the *moderate* cutoff of the CTQ-SF was used to calculate child maltreatment rates in the current sample (Bernstein & Fink, 1998).

Depressive symptoms (Wave 1). To assess depressive symptoms, the current study used the Center for Epidemiologic Studies Short Depression Scale (CES-D) (Radloff, 1977). The CES-D was originally created to detect depression in caregivers and, since its inception, has been successfully used with various age groups from adolescents (Wilcox, Field, Prodromidis, & Scafidi, 1998) to older adults (Lewinsohn, Seeley, Roberts, & Allen, 1997). Additionally, it has been validated among a range of races and ethnicities (Roth, Ackerman, Okonkwo, & Burgio, 2008). The CES-D has undergone several revisions in attempts to shorten the scale, thereby increasing its usefulness (Santor & Coyne, 1997). The current study utilized the 11-item version, which already demonstrated strong psychometrics among diverse populations (Torres, 2012). The item stem for all items was *Below is a list of the ways you might have felt or behaved. Please tell me how often you have felt this way during the past week*. Example items included *I felt that I could not shake off the blues even with help from my family or friends, I thought my life had been a failure,* and *I could not get "going."* Possible responses ranged from 0 (*Rarely or none of the time, less than 1 day*) to 3 (*Most or all of the time, 5-7 days*). The total was created

by adding all items and reverse-coding relevant items (i.e., *I felt hopeful about the future*). Raw scores were converted into T-scores by setting the sample mean at 50 and adjusting the standard deviation to 10. Reliability was excellent (α = .84).

Positive parenting (Wave 1). Respondents reported their parents' past caregiving practices via the Child Report version of the Alabama Parenting Questionnaire Short-Form (APQ-SF) (Elgar, Waschbusch, Dadds, & Sigvaldason, 2007; Frick, 1991; Shelton, Frick, & Wootton, 1996). The APQ-SF is a nine-item questionnaire that has been shown to exhibit excellent psychometrics across cultures (Dadds, Maujean, & Fraser, 2003; Essau, Sasagawa, & Frick, 2006; Molinuevo, Pardo, & Torrubia, 2011). The APQ-SF assesses the following three domains of parenting: positive parenting, inconsistent discipline, and poor supervision. The item stem was *The following are a number of statements about your family. Please rate each item as to how often it typically occurred in your home when you were growing up*. The current study utilized the positive parenting subscale, which was made up of the following items: *Your parent(s) let you know when you were doing a good job with something, Your parent(s) complimented you after you did something well,* and *Your parent(s) praised you if you behaved well*. Possible responses ranged from 1 (*never*) to 5 (*always*). The subscale evinced excellent reliability at the item level (α = .90).

Covariates (Wave 1). Covariates are variables that were included in all of the examined models to account for their influence on study outcomes. Young adults self-reported their age in years, race, ethnicity, and yearly household income. Those who reported being Caucasian/non-Hispanic were coded as 0. Racial/ethnic minorities were coded as 1. Income was reported in $1,000 increments (e.g., the value 15 would represent $15,000 in yearly earned income). Youth age, minority status, and income were used as covariates in all analyses.

Alcohol use frequency (Wave 2). Alcohol use frequency was assessed by the Alcohol Use Disorders Identification Test (AUDIT) (Babor, Higgins-Biddle, Saunders, & Monteiro, 2001). The AUDIT is a 10-item scale with questions probing the frequency of alcohol use, problems arising from alcohol use, and alcohol dependence. The current study utilized the alcohol use frequency subscale, which was made up of the following three items: *How often do you have drinks containing alcohol?* (response range: *0 = Never* to *4 = Four or more times a week)*, *How many drinks containing alcohol do you have on a typical day when you are drinking?* (response range: *0 = Never* to *4 = Ten or more*), and *How often do you have six or more drinks on one occasion?* (response range: *0 = Never* to *4 = Daily or almost daily*). Responses were summed to create the subscale total. The scale evinced good reliability (α = .84). The previous report of alcohol use frequency from Wave 1 was used as a control in all analyses including this variable.

Number of sexual partners (Wave 2). The respondents' number of sexual partners was assessed via the following item: *With how many persons have you had sexual intercourse in the last year?* This item was created to reflect a similar question from the Add Health study (Harris, 2013). Possible responses for the item ranged from 0 (*None*) to 4 (*Ten or more*). Number of sexual partners has been previously used as a proxy for sexual risk-taking among diverse samples of young adults (Donohew et al., 2000; Johnson et al., 2001) and is documented to be associated with sexual revictimization (Testa, Hoffman, & Livingston, 2010). The previous report of number of sexual partners from Wave 1 was used as a control in all analyses including this variable.

Sexual revictimization[2] (Wave 3). Sexual revictimization in young adulthood was assessed using a version of the Sexual Experiences Survey (Koss & Gidycz, 1985) that was modified to include sexual assaults of varying degrees of severity (Testa, VanZile-Tamsen, & Livingston, 2004). The survey included 11 items on unwanted sexual experiences including sexual contact (*Have you ever been fondled, kissed, or touched sexually when you didn't want to because you were overwhelmed by a man's continual arguments and pressure?*), sexual coercion (*Have you had sexual intercourse when you didn't want to because a man used his position of authority to make you?*), attempted rape (*Have you ever had a man attempt to insert his penis – but intercourse did not occur – when you didn't want him to by getting you intoxicated on alcohol or drugs without your knowledge or consent?*), and completed rape (*Have you been in a situation in which you were incapacitated due to alcohol or drugs, passed out or unaware of what was happening, and were not able to prevent unwanted sexual intercourse from taking place?*). Responses were 0 (*no*) and 1 (*yes*). Respondents also indicated if they had been sexually revictimized within the past 12 months. For the current study, respondents who reported sexual revictimization had occurred to them in the past 12 months were coded as 1 (*sexual revictimization occurred).* Respondents who reported that sexual revictimization had previously occurred but not in the past 12 months as well as respondents who reported that they had not been sexual revictimized were coded as 0 (*no sexual revictimization occurred*).

[2] Sexual revictimization refers to co-occurrence of child maltreatment and later sexual victimization. The sexual revictimization variable in this study includes instances of later sexual victimization that were not proceeded by child maltreatment, which are statistically required to test whether there is a relationship between child maltreatment and sexual revictimization. However and for the sake of clarity, the term "sexual revictimization" is used most of this time in this document to refer to both sexual revictimization and sexual victimization.

Analytic Plan

Data inspection procedures.

Normality. Data were inspected for normality via SPSS prior to testing study hypotheses. Skewness and kurtosis were examined to determine the need for data transformation to maintain assumptions of normality (Bland & Altman, 1996a, 1996b). Most variables fell within the adequate values of −2 to +2 skewness and kurtosis (Field, Miles, & Field, 2013; Gravetter & Wallnau, 2011; Trochim, 2006). However, individual income evinced high skewness ($\gamma_1 = 3.24$) and kurtosis values ($\kappa = 10.98$). This variable was transformed in analyses to account for this. Outliers were also examined to ensure data normality. No variables consistently evinced outliers ($3 \times SD \geq M$), and no changes were made to the data to address outliers.

Missing data. There were no missing data at baseline. The follow-up waves evinced 20.76% missing data at Wave 2 and 22.03% missing data at Wave 3, which are both within the approximate threshold for the reliable estimation of missing data (Royston, 2004). Attrition post-baseline was 20.03% for both Wave 2 and 3. Older young adults ($r = .36$, $p < .01$) were more likely to evince missing data, though missingness was unrelated to child maltreatment severity ($r = -.10$, $p > .05$), income ($r = .07$, $p > .05$), minority status ($r = .22$, $p > .05$), or baseline depressive symptoms ($r = -.07$, $p > .05$). There was no evidence that missingness was related to study variables, which supported a missing-completely-at-random assumption (Little & Rubin, 2002). Missing data were estimated using the full-informative maximum likelihood algorithm (Enders & Bandalos, 2001).

Offending estimates. During model building, the results of statistical models were reviewed for offending estimates inspections such as negative residual variances and standardized coefficients larger than one (Brown, 2014). No offending estimates were found.

Model fit. Model fit – that is, the quality of the match between the data and what a statistical model proposes – was assessed using two types of fit indices: absolute and relative. Absolute fit indices rate the tested statistical model against the data provided and give feedback on the deviation that exists between the two, indicating the level of poor model fit based on objective standards. Alternatively, relatives fit indices compare the tested statistical model against alternatives to the current model, indicating how good the model fit is based on subjective criteria (Cangur & Ercan, 2015; Chen, 2007; Marsh, Hau, & Wen, 2004).

Model fit was evaluated using absolute fit indices such as the Chi-Square Test of Model Fit and relative indices such as the Comparative Fit Index (CFI) (Bentler, 1990), the Root Mean Square Error Of Approximation (RMSEA) (Steiger, 1990), and the Standardized Root Mean Square Residual (SRMR) (Hu & Bentler, 1999). Significant values of the Chi-Square Test of Model Fit indicate poor fit between the model and the data. The CFI ranges from 0 to 1 with higher values indicating better fit. The RMSEA is bound by 0 and 1 with values ranging from .05 to .08 indicating acceptable fit. Values of the SRMR that are under .08 indicate good fit (Hu & Bentler, 1999).

Analytic information. Mplus version 7.4 (L. K. Muthén & Muthén, 2017) was used to test study hypotheses via multiple logistic and linear regressions within a structural equation modeling framework. Maximum-likelihood estimation was used to estimate the models (Fisher, 1934). Tests for mediation were completed using the product-of-coefficients ($\alpha*\beta$) approach

(Sobel, 1982). Moderation analyses were conducted using observed interaction terms (i.e., *independent variable* × *moderating variable*).

Statistical models. Several statistical models were used to test each of the current study hypotheses. Mediation and moderation analyses were conducted to assess for the indirect links between child maltreatment severity and sexual revictimization via risk factors as well as the protective effects of positive parenting.

Direct effect model. A model was created to establish the direct effect of child maltreatment severity (Wave 1) on sexual revictimization (Wave 3). Subsequent mediation models were planned to be conducted even in the presence of no significant direct effect per statistical recommendations (Rourke & Mackinnon, 2018).

Depressive symptom mediation model. To test the indirect effect of depressive symptoms (Wave 1) in the path from child maltreatment severity (Wave 1) to sexual revictimization (Wave 3), a mediation model was conducted.

Alcohol use frequency and number of sexual partners mediation model. To test the indirect effects of alcohol use frequency (Wave 2) and number of sexual partners (Wave 2) in paths from depressive symptoms (Wave 1) to sexual revictimization (Wave 3), a competing mediation model was conducted.

Moderation by positive parenting. To ascertain the ability of positive parenting (Wave 1) to act as a buffer in paths from alcohol use frequency (Wave 2) and number of sexual partners (Wave 2) to sexual revictimization (Wave 3), moderation models were conducted using observed interaction terms with positive parenting and alcohol use frequency as well as and with positive parenting and number of sexual partners. The main (i.e., promotive) effect of positive parenting on sexual revictimization risk was assessed by regressing sexual revictimization on positive

parenting. This was done for all moderation models. The interaction (i.e., protective) effect was assessed by regressing sexual revictimization on separate interactions between sexual partners and alcohol use frequency with positive parenting while accounting for the covariance between the main and interaction effects.

Results

Descriptive Statistics and Bivariate Associations

Nearly every respondent reported experiencing some exposure to child maltreatment, but 23 respondents reported *moderate* or higher levels of child maltreatment exposure. Ten respondents reported experiencing sexual revictimization within the past 12 months at Wave 3 (16.90%). See Figure 3 for a bar graph of child maltreatment and sexual revictimization rates. Young adults with more severe maltreatment histories reported greater depressive symptoms (r = .31, $p < .05$), reduced alcohol use frequency ($r = -.18$, $p < .05$), and lower reports of positive parenting ($r = -.57$, $p < .001$). Those with greater alcohol use frequency reported more sexual partners (r = .40, $p < .01$) and a greater likelihood of sexual revictimization (r = .34, $p < .05$). Older young adults were more likely to report being a racial and/or ethnic minority (r = .37, $p <$ .01) and earning a higher yearly income (r = .41, $p < .01$). Minorities were more likely to report earning a higher income (r = .32, $p < .05$). See Table 1 for bivariate correlations and descriptive statistics of study variables.

Aim 1: Child Maltreatment Severity and Sexual Revictimization

Minority status, income, and age were used as controls. Non-significant paths were trimmed from the model. Model fit was just identified. Child maltreatment severity was related to sexual revictimization such that a one-unit increase in child maltreatment severity resulted in a 160% increase in sexual revictimization risk (OR = 2.60, p = .09, 95% CI [0.86, 8.09]), though

this association was only marginally significant. Less than 10% of the variance in sexual revictimization was explained by the model (6.80%). See Figure 4 for a statistical model.

Aim 2: Child Maltreatment Severity, Depressive Symptoms, and Sexual Revictimization

Level of depressive symptoms was added to the model as a mediator of the effect of child maltreatment severity on sexual revictimization. Model fit was good: ($\chi 2$ (1) = 1.36, p = .24; CFI = .97; RMSEA = .08; WRMR = .37). Child maltreatment severity was significantly related to depressive symptoms (β = .36, p < .001, 95% CI [0.17, 0.56]). Depressive symptoms were related to sexual revictimization such that one-unit increase in depressive symptoms resulted in a 49% increase in sexual revictimization probability (OR = 1.49, p = .08, 95% CI [0.95, 2.33]), though this association was only marginally significant. The mediation effect was not significant (β = .12, p > .05, 95% CI [−0.03, 0.27]). See Figure 5 for a statistical model.

Aim 3: Child Maltreatment Severity, Depressive Symptoms, Risk-taking Behaviors, and Sexual Revictimization

Number of sexual partners and alcohol use frequency were added to the model as mediators of the effect of depressive symptoms on sexual revictimization. Baseline reports of number of sexual partners and alcohol use frequency were controlled for. Model fit was good: ($\chi 2$ (7) = 11.40, p = .12; CFI = .92; RMSEA = .10; WRMR = .67). Child maltreatment severity was not significantly related to number of sexual partners (β = −.18, p > .05, 95% CI [−0.41, 0.04]) or alcohol use frequency (β = −.25, p > .05, 95% CI [−0.64, 0.15]) after controlling for depressive symptoms. Depressive symptoms predicted both number of sexual partners (β = .41, p < .01, 95% CI [0.22, 0.59]) and alcohol use frequency (β = .35, p < .01, 95% CI [0.13, 0.58]). Number of sexual partners did not significantly increase or decrease sexual revictimization risk (OR = .87, p > .05, 95% CI [0.47, 1.59]). Alcohol use frequency was significantly related to

sexual revictimization such that a one-unit increase in alcohol use frequency resulted in a 20% increase in sexual revictimization risk (OR = 1.20, $p < .001$, 95% CI [1.03, 1.29]). The mediation effect from child maltreatment severity to increased sexual revictimization risk via depressive symptoms and number of sexual partners was not significant ($\beta = -.02$, $p > .05$, 95% CI [−0.09, 0.06]) but the respective path for alcohol use frequency was significant ($\beta = .07$, $p < .05$, 95% CI [0.002, 0.14]). Nearly one-third of the variance in sexual revictimization was explained by the model (30.40%). See Figure 6 for a statistical model.

Aim 4: Positive Parenting as a Moderator

Positive parenting was added to the model as a moderator of the effects of alcohol use frequency and number of sexual partners on sexual revictimization. Separate models for the moderation of number of sexual partners and alcohol use frequency were conducted. Sexual revictimization was regressed onto positive parenting in both models. Positive parenting was regressed onto child maltreatment severity in both models.

Number of sexual partners. Model fit was good: ($\chi 2$ (16) = 17.80, $p = .34$; CFI = .97; RMSEA = .04; WRMR = .63). Positive parenting was significantly and negatively related to sexual revictimization such that an increase in positive parenting corresponded to a 16% decrease in sexual revictimization likelihood (OR = .84, $p < .05$, 95% CI [0.73, 0.97]). Despite no mean-level association between number of sexual partners and sexual revictimization, positive parenting also buffered the path from sexual partners to sexual revictimization (OR = 0.85, $p < .05$, 95% CI [0.74, 0.97]) such that for every one unit increase in positive parenting there was a corresponding 15% decrease in risk for sexual revictimization among women with more sexual partners . The model explained over half of the variance in sexual revictimization (59.80%). See Figure 7 for a statistical model and Figure 8 for a graphing of the moderation.

Alcohol use frequency. Model fit was good: ($\chi 2$ (16) = 17.67, p = .34; CFI = .98; RMSEA = .04; WRMR = .63). Positive parenting had a negative direct effect on sexual revictimization such that a one-unit increase in positive parenting reduced the risk of sexual revictimization by 14% (OR = .86, p < .05, 95% CI [0.74, 0.99]). Positive parenting also buffered the effect of alcohol use frequency on sexual revictimization (= 0.86, p < .01, 95% CI [0.75, 0.98]) such for every one unit increase in positive parenting there was a corresponding 14% decrease in sexual revictimization risk for women with more frequent alcohol use. The model explained over half of the variance in sexual revictimization (57.60%). See Figure 9 for a statistical model and Figure 10 for a graphing of the moderation. Also, see Table 2 for model estimates from all analyses.

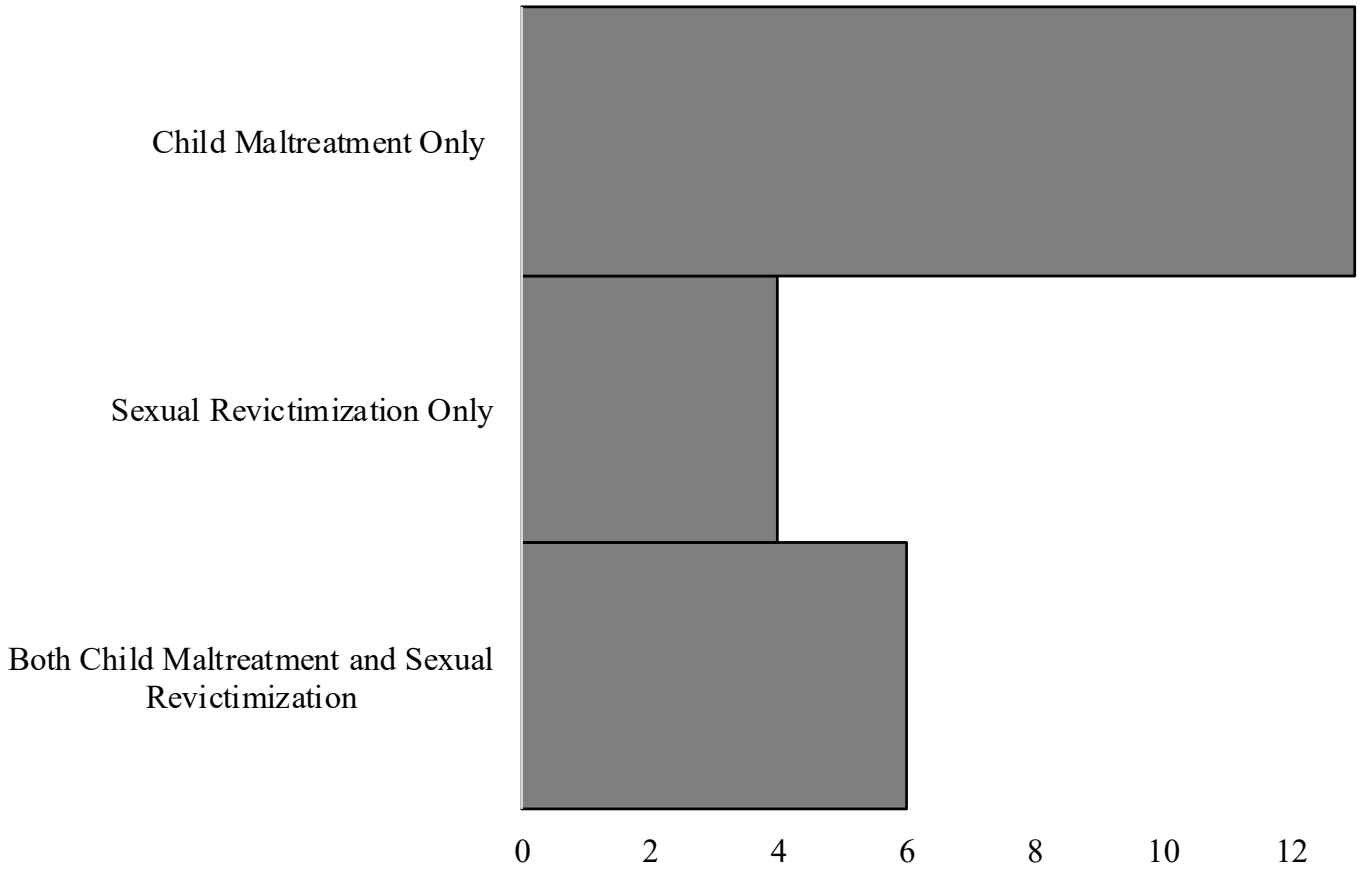

Figure 3. Bar Graph of Child Maltreatment and Sexual Revictimization Rates ($N = 59$).

Note. The *moderate* cutoff from the Childhood Trauma Questionnaire scoring manual was used to calculate child maltreatment rates. The cutoff was not used in statistical analyses and rates are shown here for display purposes only.

Table 1. Bivariate Correlations, Means, and Standard Deviations of the First Study ($N = 59$).

	1	2	3	4	5	6	7	8	9
1. Child maltreatment severity	—								
2. Depressive symptoms	.31*	—							
3. Alcohol use frequency	−.18*	.21	—						
4. Number of sexual partners	.15	.24	.40**	—					
5. Sexual revictimization	.15	.13	.34*	.09	—				
6. Positive parenting	−.57***	−.04	.11	.08	−.29	—			
7. Age	−.08	−.16	−.24	−.15	−.16	.02	—		
8. Minority status	.14	.03	−.15	−.01	.25	.08	.37**	—	
9. Yearly income	.05	.04	−.10	−.03	−.10	.21	.41**	.32*	—
Mean/Frequency	54.51	10.27	3.64	1.40	10	10.07	21.02	19	15.08
SD/Percentage	16.87	6.18	3.02	0.85	16.90%	3.27	2.55	32.20%	14.52

Note. Means and standard deviations reported for continuous variables. Frequency and percentage reported for sexual revictimization and youth minority status. Sexual revictimization coded as 0 (*no sexual revictimization in past 12 months*) and 1 (*sexual revictimization occurred in past 12 months*). Child minority status coded as 0 (*white*) and 1 (*racial minority*). Youth yearly income reported in $1,000 increments (e.g., 15 = $15,000).
* $p < .05$, ** $p < .01$, *** $p < .001$.

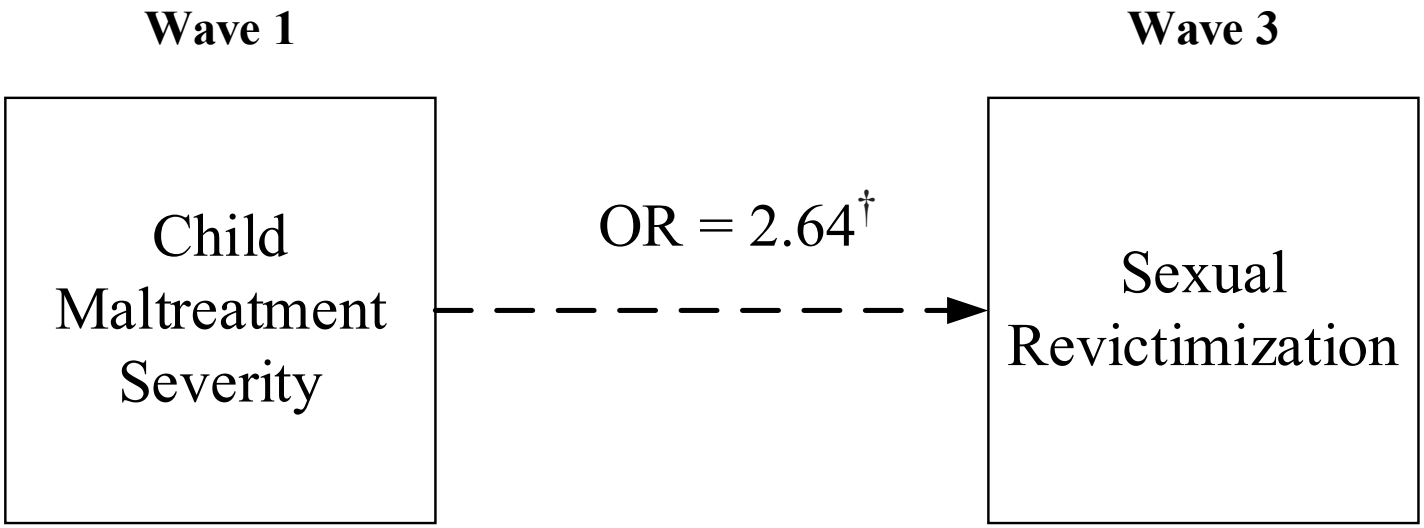

Figure 4. The Direct Effect from Child Maltreatment Severity to Sexual Revictimization ($N = 59$).

Note. Model fit was just identified: (χ^2 (1) = .53, p = .47; CFI = 1.00; RMSEA = .00; WRMR = .29). Dotted line indicates non-significant pathway. Age, minority status, and income were controlled for. OR = Odds ratio.
† $p < .1$.

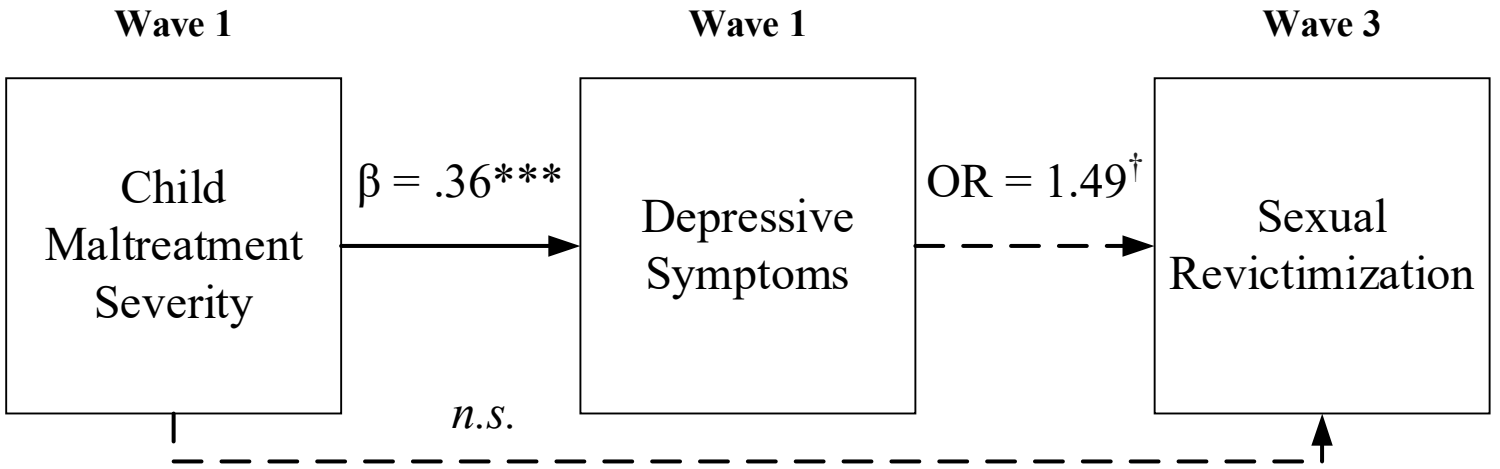

Figure 5. The Indirect Effect from Child Maltreatment Severity to Sexual Revictimization via Depressive Symptoms ($N = 59$).

Note. Model fit was good: (χ^2 (1) = 1.36, $p = .24$; CFI = .97; RMSEA = .08; WRMR = .37). Age, minority status, and income were controlled for. OR = Odds ratio.
† $p < .1$, *** $p < .001$.

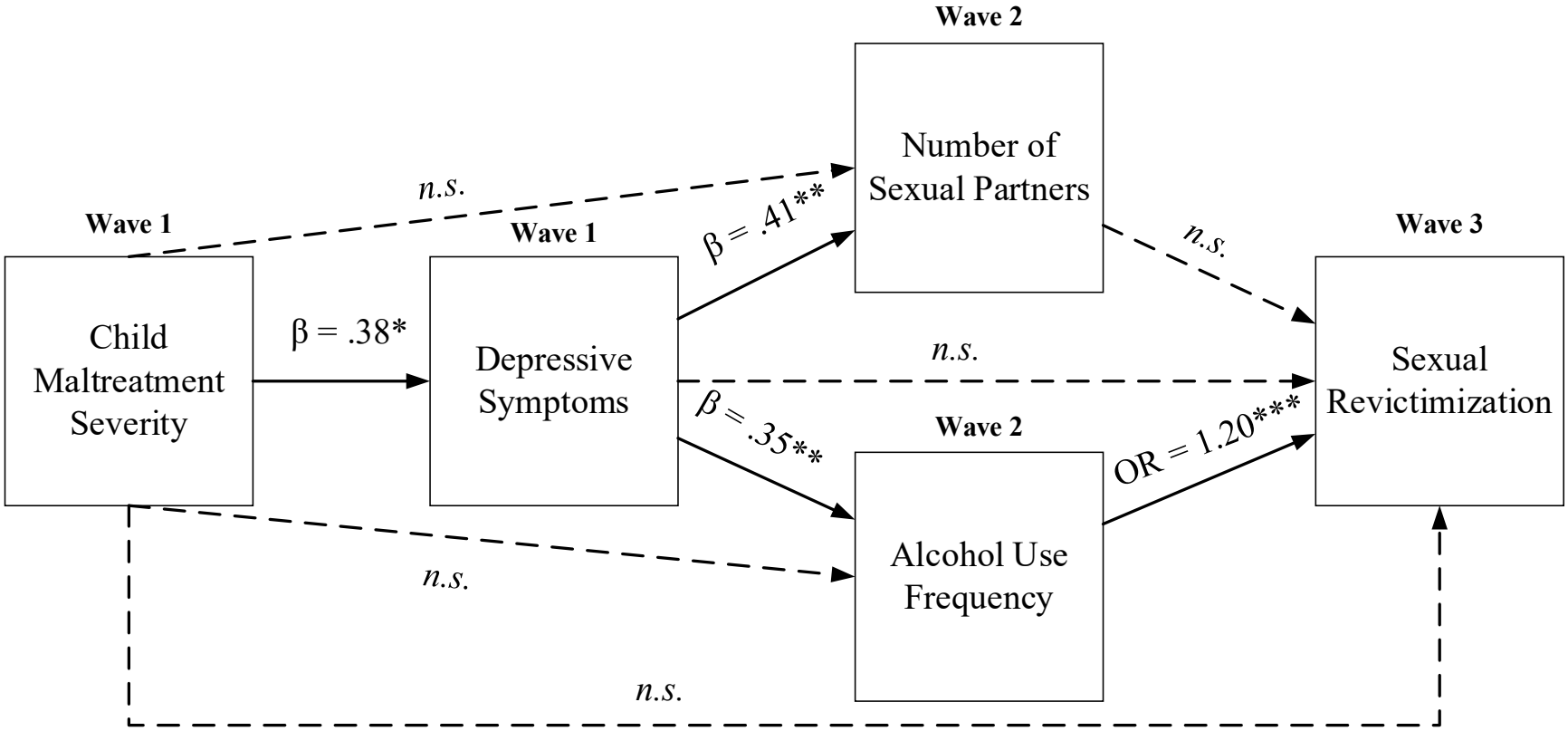

Figure 6. The Indirect Effect from Child Maltreatment Severity to Sexual Revictimization via Depressive Symptoms, Number of Sexual Partners, and Alcohol Use Frequency ($N = 59$).

Note. Model fit was good: (χ^2 (7) = 11.40, $p = .12$; CFI = .92; RMSEA = .10; WRMR = .67). The indirect effect from child maltreatment severity to sexual revictimization via depressive symptoms and alcohol use frequency was significant ($p < .05$). Dotted line indicates non-significant pathway. Age, minority status, and income as well as previous reports of alcohol use frequency and number of sexual partners were controlled for. OR = Odds ratio.
* $p < .05$, ** $p < .01$, *** $p < .001$.

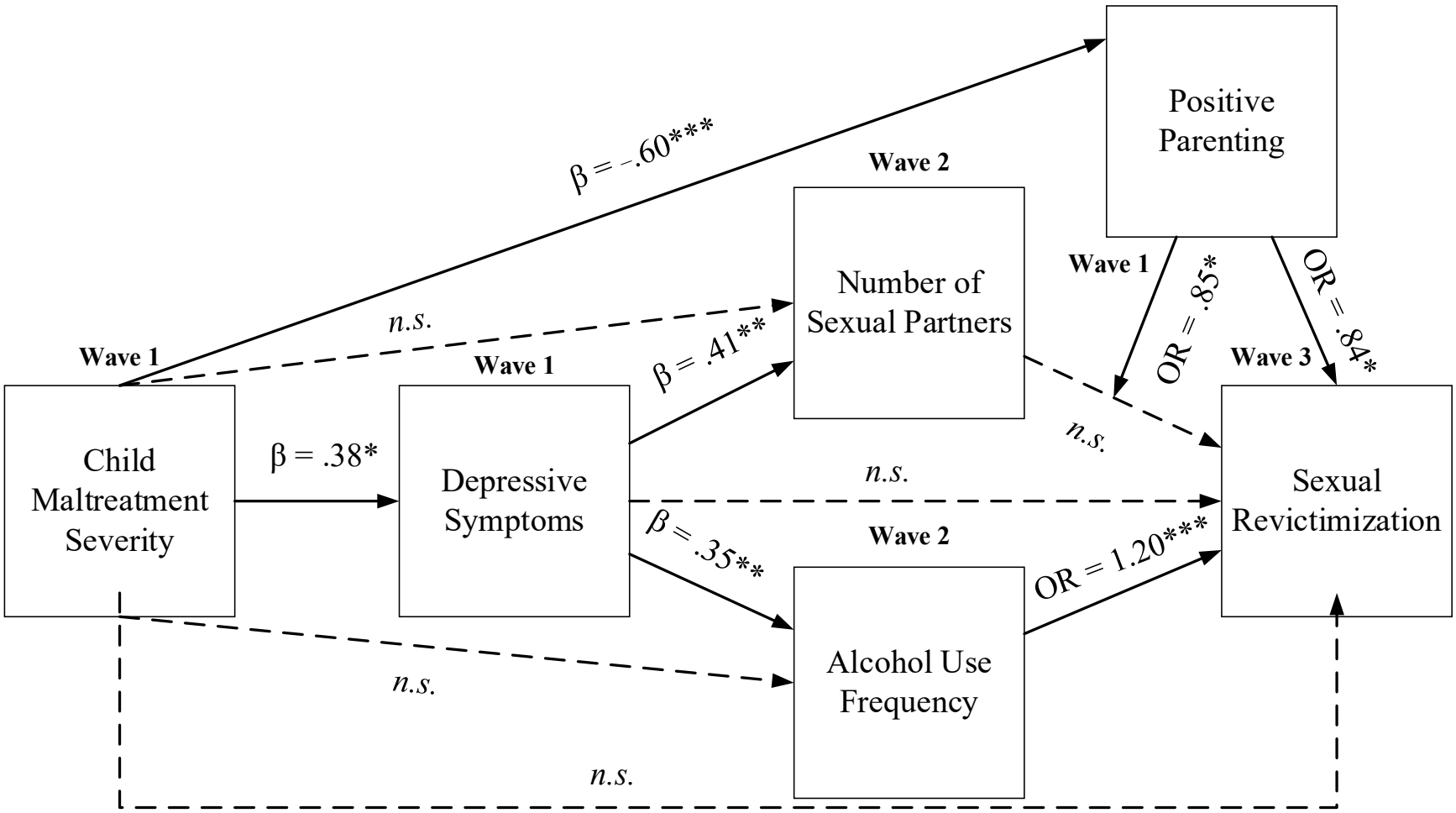

Figure 7. The Moderating Effect of Positive Parenting on the Link between Number of Sexual Partners and Sexual Revictimization ($N = 59$).

Note. Model fit was good: (χ^2 (16) = 17.80, $p = .34$; CFI = .97; RMSEA = .04; WRMR = .63). Dotted line indicates non-significant pathway. Age, minority status, and income as well as previous reports of alcohol use frequency and number of sexual partners were controlled for. OR = Odds ratio.

* $p < .05$, ** $p < .01$, *** $p < .001$.

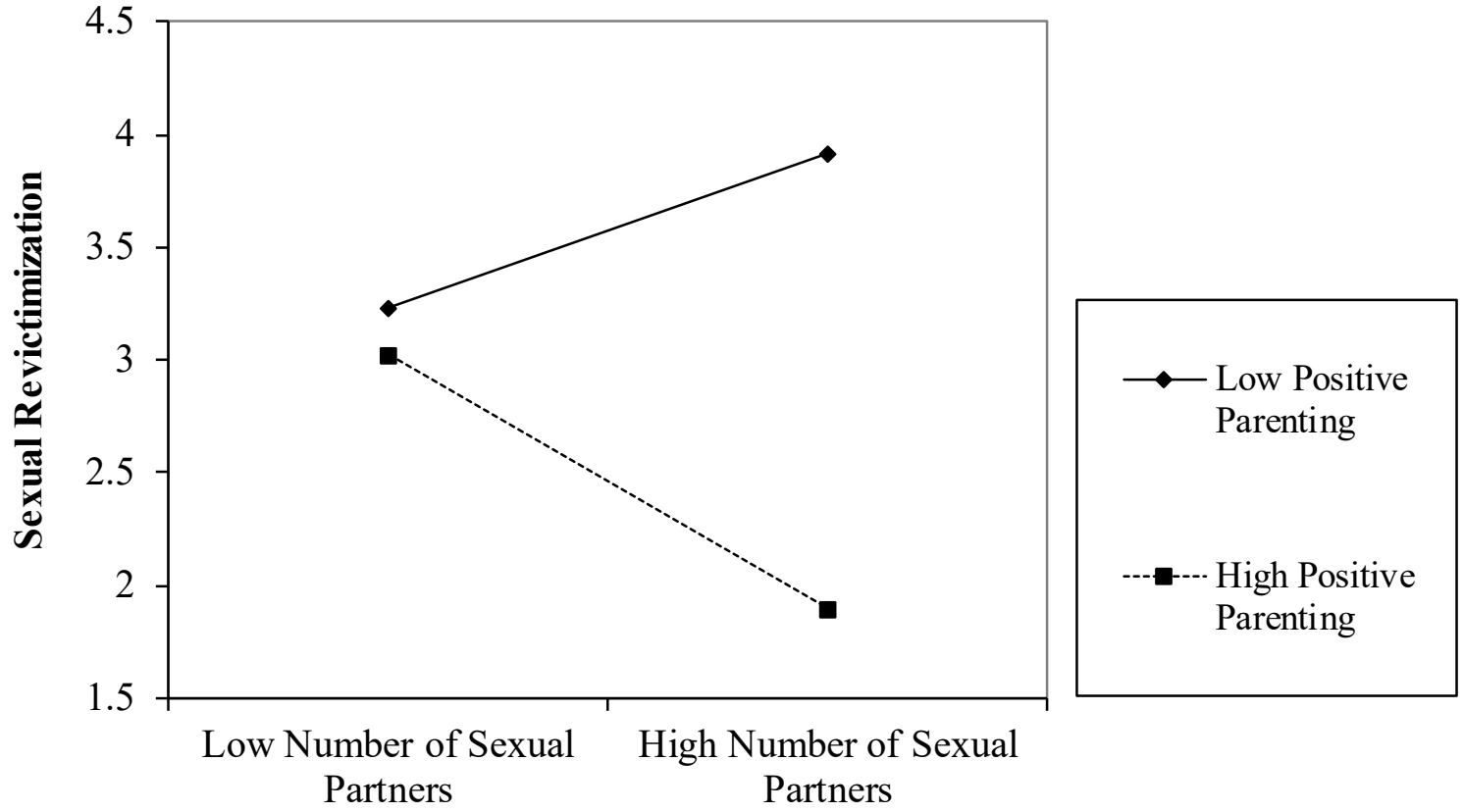

Figure 8. Probing of the Moderation of the Link between Number of Sexual Partners and Sexual Revictimization by Positive Parenting ($N = 59$).

Note: The Y-axis values are the logit estimates from the logistic regression path resulting from sexual revictimization being regressed on the number of sexual partners × positive parenting interaction term.

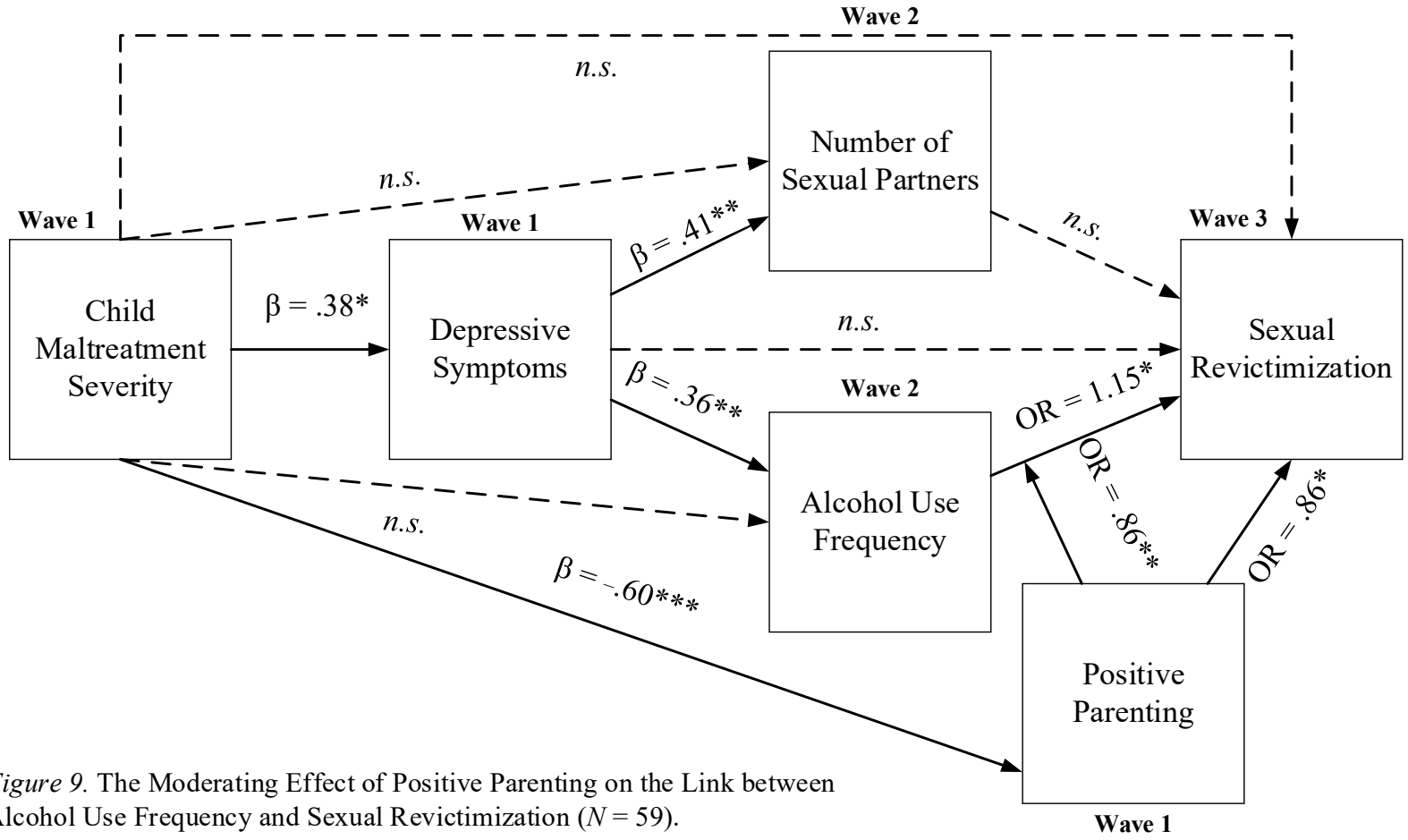

Figure 9. The Moderating Effect of Positive Parenting on the Link between Alcohol Use Frequency and Sexual Revictimization (N = 59).

Note. Model fit was good: (χ^2 (16) = 17.67, p = .34; CFI = .98; RMSEA = .04; WRMR = .63). Dotted line indicates non-significant pathway. Age, minority status, and income as well as previous reports of alcohol use frequency and number of sexual partners were controlled for. OR = Odds ratio.

* p < .05, ** p < .01, *** p < .001.

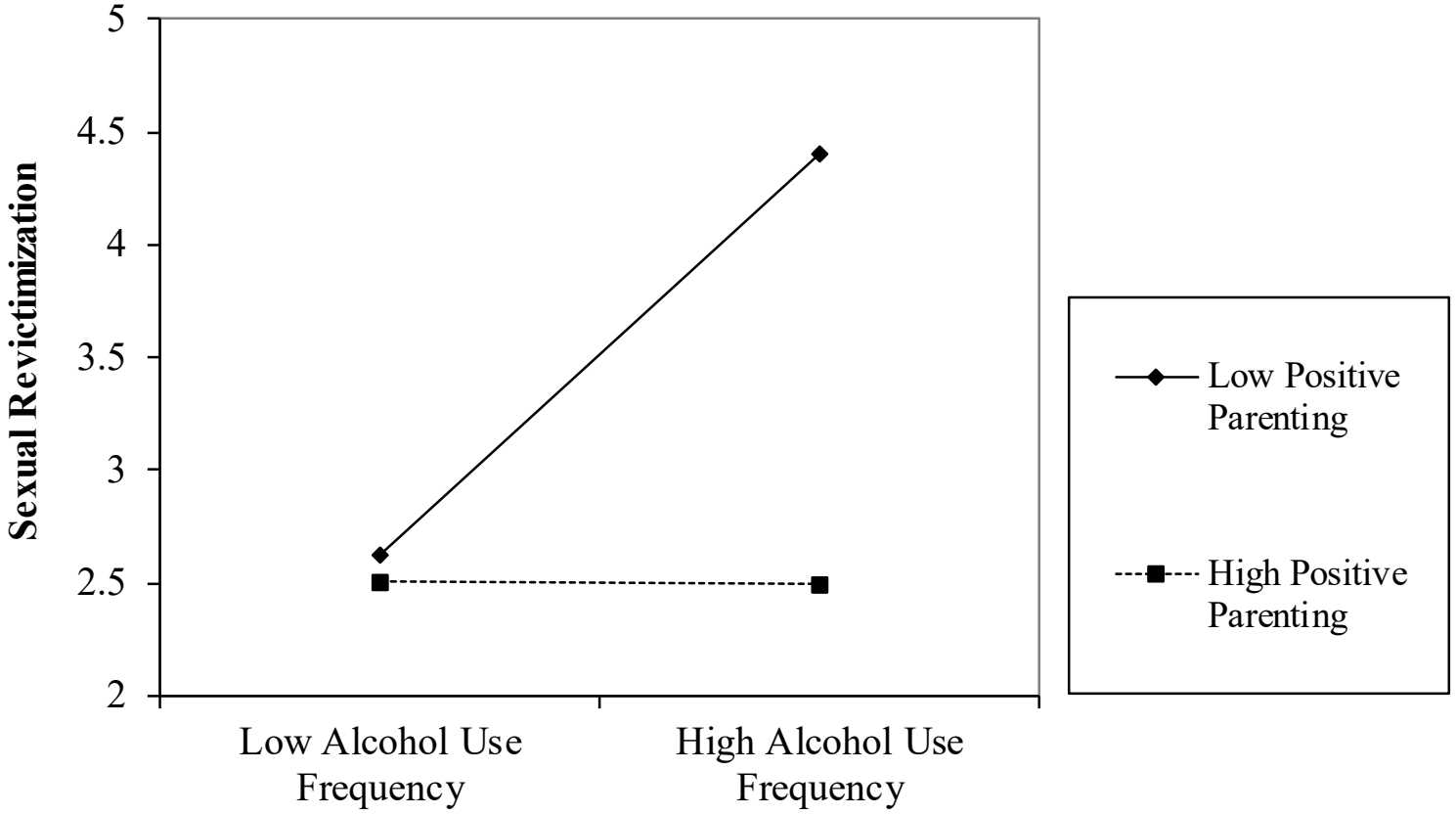

Figure 10. Probing of the Moderation of the Link between Alcohol Use Frequency and Sexual Revictimization by Positive Parenting ($N = 59$).

Note: The Y-axis values are the logit estimates from the logistic regression path resulting from sexual revictimization being regressed on the alcohol use frequency × positive parenting interaction term.

Table 2. Parameter Estimates of Direct and Indirect Effects of the First Study ($N = 59$)

Direct effect	**B (SE)**	**β/OR**	**B/OR 95% CI**
CM → SR	0.97 (0.57)	2.64	[0.86, 8.09]†
Depressive Symptoms			
CM → DEP	0.33 (0.09)	0.36	[0.17, 0.56]***
DEP → SR[a]	0.40 (0.23)	1.49	[0.95, 2.33]†
CM → DEP → SR	0.13 (0.09)	0.12	[−0.32, 0.54]
Sexual Partners and Alcohol Use			
CM → DEP	0.18 (0.06)	0.38	[0.12, 0.64]**
DEP → SEX	0.06 (0.02)	0.41	[0.22, 0.59]**
DEP → ALC	0.18 (0.06)	0.35	[0.13, 0.58]**
SEX → SR[a]	−0.14 (0.31)	0.87	[0.47, 1.59]
ALC → SR[a]	0.18 (0.05)	1.20	[1.10, 1.32]***
CM → DEP → SEX → SR	−0.001 (0.002)	−0.02	[−0.09, 0.06]
CM → DEP → ALC → SR	0.004 (0.002)	0.07	[0.002, 0.14]*
Moderation of Alcohol Use			
PP → SR[a]	−0.15 (0.08)	0.86	[0.74, 0.99]*
ALC × PP → SR[a]	−0.05 (0.01)	0.86	[0.75, 0.98]**
Moderation of Sexual Partners			
PP → SR[a]	−0.17 (0.07)	0.84	[0.73, 0.97]*
SEX × PP → SR[a]	−0.16 (0.07)	0.85	[0.74, 0.97]*

Note. CM = Child maltreatment severity. SR = Sexual revictimization. DEP = Depressive symptoms. ALC = Alcohol use frequency. SEX = Number of sexual partners. PP = Positive parenting. OR = Odds ratio. a = Odds ratios displayed. Covariate effects not shown for clarity.

† $p < .1$, * $p < .05$; ** $p < .01$; *** $p < .001$.

Discussion

The current study tested the direct and indirect links from child maltreatment severity to sexual revictimization via depressive symptoms and risk-taking behaviors. Also, positive parenting was tested as a moderator of the effects of risk-taking behaviors on sexual revictimization. Findings indicated that greater child maltreatment severity increased the probability of sexual revictimization via heightened depressive symptoms and alcohol use frequency. Additionally, positive parenting directly reduced sexual revictimization likelihood and buffered paths from alcohol use frequency to sexual revictimization.

Aim 1: Child Maltreatment Severity and Sexual Revictimization

The first aim of the current study was to statistically test the association between child maltreatment severity and risk for sexual revictimization. The present findings indicated that child maltreatment severity had some impact on sexual revictimization but the link was statistically insignificant. These findings are in contradiction to emerging research that has shown that child maltreatment predicts sexual revictimization occurrences (Fargo, 2009; Finkelhor et al., 2007b; Wager, 2013). In light of the magnitude of the non-significant effect, it is likely that the low sample size prohibited the direct association from being detected at the level of significance.

Aim 2: Child Maltreatment Severity, Depressive Symptoms, and Sexual Revictimization

The second aim of this study was to examine the mediating role of depressive symptoms in the link between child maltreatment severity and probability of sexual revictimization. Existing research identified that child maltreatment leads to the development of psychopathology such as depressive symptoms (Cutajar et al., 2010; Nelson et al., 2002; Turner, Finkelhor, & Ormrod, 2010) and that this symptomology places women at risk for sexual revictimization (Cuevas et al., 2010; Dietrich, 2007; Krahe & Berger, 2017; Ullman & Vasquez, 2015). Thus

and in the current study, it was hypothesized that elevations in depressive symptoms would underlie the indirect pathway from child maltreatment severity to sexual revictimization. The results did not provide support for this hypothesis. While child maltreatment severity significantly predicted depressive symptoms, the association between depressive symptoms and sexual revictimization was only of marginal statistical significance. This finding corroborates previously documented links between child maltreatment and depressive symptoms (Nanni et al., 2012; Vranceanu et al., 2007). However, this result is in contrast with emerging research showing that depressive symptoms underlie the path from child maltreatment to sexual revictimization among college students (Miron & Orcutt, 2014).

There are several potential explanations for this null finding. First, the small sample size used in the current study incurred limitations on power, which could have undermined the detection of an effect. A larger sample may have identified an association between depressive symptoms and sexual revictimization at the level of statistical significance. Second, it is also possible that a moderator may be playing a role in the current findings. Depressed women who have a strong support network may find that they have an equivalent sexual revictimization risk compared to non-depressed women (Littleton, 2010). Alternatively, depressed women who live in a dangerous neighborhood might have heightened sexual revictimization likelihood compared to depressed women living in less hazardous areas (East, Chien, Adams, Hokoda, & Maier, 2010). Further investigation into the link between depressive symptoms and probability for sexual revictimization is needed to clarify these possibilities.

Aim 3: Child Maltreatment Severity, Depressive Symptoms, Risk Behaviors, and Sexual Revictimization

Number of sexual partners. The next aim was to examine risk-taking behaviors as mechanisms that underlie the path from depressive symptoms to sexual revictimization. The current findings identified that depressive symptoms were significantly and positively related to number of sexual partners. This finding is consistent with previous research that has found that depressed youth engaged in increased sexual risk-taking, including having sexual relations with multiple persons (Hessler & Katz, 2010). Youth feel increased positive emotions and decreased negative emotions when engaging in sexual intercourse (Shrier et al., 2012, 2010), which may explain why depressed youth engage in sexual risk-taking more often than non-depressed youth (Dawson et al., 2008; Hahn, Simons, & Simons, 2016). Maltreated youth could also be seeking out more sexual partners for reasons other than simple affect management via sexual activity. They might be desiring an attachment partner and seeking emotional support, which could also explain the association between depressive symptoms and number of sexual partners (Ethier et al., 2006).

The next step was to examine youths' number of sexual partners as a mediator of the path between depressive symptoms and sexual revictimization. The hypothesis was that having more sexual partners would increase the risk for sexual revictimization. The current findings indicated that there was no significant path between number of sexual partners and sexual revictimization. This result contends with previous literature that has indicated that sexual risk-taking increases the risk for sexual revictimization (Fargo, 2009; Fergusson, Horwood, & Lynskey, 1997; Ullman & Vasquez, 2015). However, this finding corroborates other studies that found the link between number of sexual partners and sexual revictimization to be non-significant (Miner et al., 2006).

It is possible that some forms of sexual risk-taking such as having sex while intoxicated (Franklin, 2010) increase women's risk for sexual revictimization more so than other forms of sexual risk-taking such as having sex with multiple partners. Accordingly, emerging research is indicating that intoxicated sexual activity is a potent risk factor for sexual revictimization (Fargo, 2009; Walsh et al., 2013), and this may be an important area of future research.

Alcohol use frequency. The next aim of the current study was to examine the mediating role of alcohol use frequency in the path from depressive symptoms to sexual revictimization. Previous research identified that depressive symptoms are linked to increased alcohol use (Hussong & Chassin, 1994; Katon et al., 2010; Marmorstein, 2009). The current study corroborated this research by finding a positive and significant link between depressive symptoms and alcohol use frequency. According to an affective hypothesis of substance use, youth experiencing symptoms of depression such as increased negative affect and reduced positive affect use alcohol to counter these symptoms (Hussong et al., 2001; Simons et al., 2005).

The next aim was to examine whether alcohol use frequency served as a mechanism in the link from depressive symptoms to sexual revictimization occurrence. The hypothesis was that alcohol use frequency would underlie the path from depressive symptoms to risk for sexual revictimization. The current findings suggested that alcohol use frequency mediated the longitudinal association between depressive symptoms and sexual revictimization in young adulthood. Also, the indirect effect of child maltreatment on sexual revictimization via depressive symptoms and alcohol use frequency was significant. These findings corroborate previous research that found alcohol use frequency to directly lead to increased risk for sexual revictimization (Combs-Lane & Smith, 2002; Corbin et al., 2001; Gidycz et al., 2007), mediate the link between child maltreatment and sexual revictimization (Testa, Hoffman, & Livingston,

2010), and underlie associations between child maltreatment, forms of psychopathology, and sexual revictimization (Walsh et al., 2014). Future research can examine the mechanisms by which alcohol use frequency is linked to sexual revictimization such as reduced risk perception (Gidycz et al., 2007).

Aim 4: Positive Parenting as a Moderator

Direct effect on sexual revictimization. The first part of the fourth aim was to examine the direct effect of positive parenting on sexual revictimization. Studies have documented that contextual factors such as the family environment impact sexual revictimization likelihood (Grauerholz, 2000; Pittenger et al., 2016). Accordingly, familial factors similar to positive parenting reduce the risk for future sexual revictimization occurrences (Folger & Wright, 2013; Jankowski, Leitenberg, Henning, & Coffey, 2002; Reid & Sullivan, 2009; Stermac, Reist, Addison, & Millar, 2002). The current study corroborated these findings by showing that positive parenting directly reduced youths' sexual revictimization probability.

Moderation effect on the link between number of sexual partners and sexual revictimization. The next aim was to examine the moderating role of positive parenting on the link between number of sexual partners and sexual revictimization. Research revealed that beneficial family factors such as positive parenting reduce sexual risk-taking, including number of sexual partners (Hadley, Houck, Barker, & Senocak, 2015; O'Donnell et al., 2008; Parkes et al., 2011; Rodgers & McGuire, 2012). The hypothesis was that positive parenting would moderate the link between number of sexual partners and sexual revictimization. The findings indicated that positive parenting moderated the link between number of sexual partners and sexual revictimization such that youth with more sexual partners and increased positive parenting had reduced revictimization risk compared to youth with more sexual partners and decreased

positive parenting. It is possible that maltreated youth who experienced positive parenting maintained their interpersonal effectiveness and refusal strategies, thus enabling them to have sex with multiple partners while not consequently increasing their sexual revictimization likelihood (Ullman & Vasquez, 2015; Walsh et al., 2013). More research is needed to understand why positive parenting decreases the link between number of sexual partners and sexual revictimization.

Moderation effect on the link between alcohol use frequency and sexual revictimization. The current study also aimed to test the buffering effect of positive parenting on the path from alcohol use frequency to sexual revictimization. Studies examining the role of family factors in the direct prevention of risk-taking behaviors found support for the reduction of alcohol use (Bronte-Tinkew et al., 2006; Cleveland et al., 2005; Perkins & Jones, 2004; Perkins et al., 2002) via increased self-regulation (Fagan et al., 2013) and decreased susceptibility to peer pressure (Parker & Benson, 2004). Based on the existing research and context-focused theories of sexual revictimization (Cicchetti & Valentino, 2006; Grauerholz, 2000; Pittenger et al., 2016), the hypothesis was that positive parenting would buffer paths from alcohol use frequency to sexual revictimization. The current study found that positive parenting significantly reduced the influence of alcohol use frequency on sexual revictimization. Maltreated youth exposed to positive parenting may still drink alcohol but avoid riskier behaviors that are specifically predictive of sexual revictimization such as substance-involved sex (George et al., 2014) and heightened levels of alcohol impairment (McCauley, Calhoun, & Gidycz, 2010; Testa, Hoffman, & Livingston, 2010). This finding is in line with ecological-transactional perspectives that purport that the risks imposed by negative behavioral factors can be counterbalanced by positive resources within the youths' proximal environment (Cicchetti & Valentino, 2006). More

research is needed to ascertain the specific benefit of positive parenting in the path from alcohol use frequency to sexual revictimization.

Implications

Policy. The current study found that youth with more severe child maltreatment histories are at increased risk for sexual revictimization compared to non-maltreated youth. Policymakers can make use of these findings by being instrumental in contending for resources to provide maltreated youth with supports such as evidence-based interventions, thus reducing their likelihood of experiencing sexual violence later in life. Additionally, the current investigation found that positive parenting had a protective effect on the link between alcohol use frequency and sexual revictimization. Intervening with the maltreating family members is a critical part of assisting with youths' recovery from child maltreatment and the prevention of risk-inducing behaviors such as risky sex and substance use. Maltreating families that can still be supportive towards their youth by providing a setting that allows them to explicitly address previous maltreatment experiences with their children, which can lead to better adaptation among youth (Gewirtz, Forgatch, & Wieling, 2008). However, policies are needed to support the reunification of maltreating families with protective aspects that are critical to youth development. Policymakers can ensure that maltreating families are provided with opportunities to continue to positively influence their youth as well as with interventions that help families reduce maltreating behaviors and increase positive caregiving practices.

Prevention and intervention. The current study found that depressive symptoms among severely maltreated youth increased their risk-taking behavior engagement and led to heightened sexual revictimization likelihood. Interventionists working with maltreated youth can target depressive symptomology in order to alter cascades of risk that abused and neglected youth

experience. Specifically, therapists should look for maladaptive self-regulation strategies (e.g., using risky sex and substance use as coping mechanisms) among depressed youth as these behaviors may be an indicator of early sexual revictimization risk development. The current study found that greater alcohol use frequency increased youths' sexual revictimization likelihood and that positive parenting served as a protective buffer in that pathway. Interventions with maltreating families can bolster caregivers' positive parenting strategies to reduce youths' probability of sexual revictimization. Accordingly, existing interventions previously targeted positive parenting as a means of reducing their likelihood of future involvement with child protective services (Sanders, 1999; Zhou et al., 2017), and these programs may have reduced sexual revictimization risk among youth as well though this is currently unclear.

Limitations and Strengths

Limitations. This investigation is not without some limitations. First, all variables used in the current analyses were self-reported measures, which are susceptible to reporting biases (Edwards et al., 2001). Self-reported data are not necessarily so flawed that they are dismissible (Hardt & Rutter, 2004) and self-reported measures of abuse and neglect often capture maltreatment occurrences that were never reported to authorities (Everson et al., 2008; Negriff, Schneiderman, & Trickett, 2017). However, measures completed by other reporters (e.g., official documentation of maltreatment history, clinician report of depressive symptomology) would further bolster confidence in the current findings.

Second, the current study used a sample of females to test the current hypotheses, but emerging research suggested that males are also at risk for sexual revictimization (French, Tilghman, & Malebranche, 2015; Krahe & Berger, 2017). A post hoc analysis of young adult male data from the dataset used for this study was conducted, and findings indicated that the

strength of the bivariate link between child maltreatment and sexual revictimization ($r = .14$, $p > .05$) was similar to that among females ($r = .17$, $p > .05$). However, the base rate of sexual revictimization among men ($n = 3$) was prohibitively low compared to women ($n = 22$) and proved unstable in subsequent structural equation modeling analyses. This result is unsurprising as young adult women experience sexual victimization at higher rates than men (Hines, 2007; Z. D. Peterson, Voller, Polusny, & Murdoch, 2011). However, men are indeed sexually victimized (Weiss, 2010), and new research is showing that sexual revictimization rates among men are comparable to respective rates among women (Aosved et al., 2011), which is consistent with the previously mentioned post hoc analyses. Future research can utilize datasets with greater sample sizes to test the current hypotheses specifically among young adult men.

Third, this study utilized prospective data from a difficult-to-reach population, although the current sample size was limited in size. Statistical recommendations advise having at least a ratio of 1:10 between the number of parameters assessed in a model and the number of cases in the data (Brown, 2014). Although statistically significant findings were identified, the current study utilized complex models that exceeded this recommended ratio, which may have implications on the stability of the reported parameter estimations from these data. Some statisticians have cast doubt on the use of these "rules of thumb" in structural equation modeling frameworks (L. K. Muthén & Muthén, 2002), allowing the use of complex models with smaller sample sizes. Regardless, more research is needed to re-test and establish the results of the current study.

Strengths. Despite the limitations above, the current has several strengths. First, data were collected from community young adult women who did not go to college after high school. This group is understudied compared to their counterparts who went to college, and they are

likely at greater risk due to socioeconomic differences. Second, there were repeated assessments over the course of two years. The longitudinal nature of the data is important as many studies utilize cross-sectional designs, which can incur doubts on claims of the temporal ordering among study variables.

Conclusion

The current study examined the links between child maltreatment severity and sexual revictimization via depressive symptoms and risk behaviors as well as the protective benefits of positive parenting among youth adult women. Findings suggested that greater child maltreatment severity led to increased depressive symptomology, which in turn increased number of sexual partners and alcohol use frequency. Youth who drank more alcohol were at greater risk for sexual revictimization. Positive parenting directly reduced sexual revictimization risk and buffered the path from alcohol use frequency to sexual revictimization. Future investigations can test the protective utility of positive parenting with other risk mechanisms on paths to sexual revictimization. Policymakers can ensure that maltreated youth have access to the resources needed to psychologically recover from abuse and neglect as well as avoid sexual revictimization in young adulthood. Interventionists can increase the protective capacities of maltreating families.

CHAPTER 3

CHILD SEXUAL ABUSE HISTORY AS A RISK FACTOR FOR SEXUAL REVICTIMIZATION AMONG MALTREATED YOUTH: THE ROLE OF COMMUNITY CONTEXTS AND DEMOGRAPHIC FACTORS[3]

[3] Carlson, M. W. & Oshri, A. To be submitted to *American Journal of Community Psychology*.

Abstract

Objectives

The current study aimed to examine the impact of child sexual abuse history compared to other forms of maltreatment on youths' risk for sexual revictimization in late childhood and adolescence. The aims of the study also included testing the moderating influence of community disadvantage and engagement on the link between child sexual abuse history and sexual revictimization. Comparisons between boys and girls as well as children and adolescents were conducted to assess for gender and age differences in the aforementioned associations.

Methods

The data used in this study were drawn from a longitudinal, nationally representative sample of youth (N = 5,501; M_{age} = 5.70, SD_{age} = 4.81; 50.30% female; 51.2% Caucasian, 33.80% African American) and their families who were involved with child protective services due to child abuse and neglect allegations. Case details were obtained from government records and used to operationalize youths' child maltreatment experiences. Caseworkers and parents reported on sexual revictimization occurrences among youth following the closure of initial investigation by child protective services at baseline data collection. Structural equation modeling was used to test the study hypotheses.

Results

Sexually abused children were significantly more likely to experience sexual revictimization than youth with other forms of maltreatment (OR = 1.58, $p < .01$, 95% CI [1.16, 2.16]). This effect was significantly reduced among engaged communities (OR = 0.41, $p < .001$, 95% CI [0.28, 0.58]). In these more supportive communities, sexually abused children compared

to sexually abused adolescents were significantly more likely to experience a reduction in sexual revictimization risk ($\Delta\chi^2 = 6.10$, $p < .05$).

Conclusions

The current findings suggested that sexually abused children and adolescents are at greater risk of being sexually revictimized before adulthood compared to youth with other forms of child abuse and neglect. Among youth with sexual abuse histories, those living in engaged communities showed reduced risk for sexual revictimization. Sexually abused youth may benefit from tailored preventive intervention programs and public health policies that are designed to reduce the risk for sexual revictimization by targeting protective factors at the community-level such as community engagement.

Introduction

Existing Gaps in Research and Rationale for the Current Study

Previous studies found that youth with sexual abuse histories are at risk for sexual revictimization (Fargo, 2009; Filipas & Ullman, 2006; Hébert, Moreau, Blais, Lavoie, & Guerrier, 2017; Maker et al., 2001; Messman-Moore & Long, 2002; Oshima et al., 2014; Ullman & Vasquez, 2015), but the influence of sexual abuse on sexual revictimization over and above other forms of child maltreatment is less well understood. Additionally, the role of contextual and demographic factors in the development of sexual revictimization risk is largely unknown. First, sexual abuse history is a risk factor for becoming sexually revictimized (Messman-Moore & Brown, 2004), but some studies showed that experiencing any form of abuse or neglect is a general risk factor for future sexual revictimization events (Finkelhor et al., 2007b; Stermac et al., 2002). Whether sexual abuse is a greater risk factor for sexual revictimization compared to other forms of child abuse and neglect is not well-documented. The empirical literature on sexual abuse suggests that sexually abused youth are at particular risk for subsequent sexual violence due to learned helplessness towards sexual coercion (C. Peterson & Seligman, 1983), pathological sexual attitudes (Browne & Finkelhor, 1986), and the normalization of sexual exploitation (Messman & Long, 1996). However, it is unclear if mechanisms such as these place sexually abused youth at uniquely heightened risk for sexual violence compared to youth who suffered other forms of maltreatment. More studies utilizing prospective sexual revictimization data and clear differentiation of child maltreatment subtypes are needed to clarify this.

Second, very little about the community context's influence on sexual revictimization is understood, which is concerning. Past studies documented that community poverty places youth at substantial risk for child sexual abuse, which is a risk factor for sexual revictimization (Drake

& Pandey, 1996; Finkelhor, 1993). These factors can be framed by the ecological-transactional model which purports that individual risks contribute to developmental outcomes (e.g., subsequent sexual violence) but are modified by a balance of contextual resources and risks in the youth's environment (Cicchetti & Valentino, 2006). Few studies have used this perspective in studies of sexual revictimization.

Lastly, individual demographic factors such as child gender (Aosved et al., 2011) and age (Steinberg, 2005) may also influence links between sexual abuse, sexual revictimization, and contextual factors. Associated research documented that girls versus boys (Briere & Elliott, 2003; Finkelhor et al., 2014; Pereda, Guilera, Forns, & Gomez-Benito, 2009) and children versus adolescents (Finkelhor, 1993) are at increased risk for child sexual abuse. However, it is unclear if girls and children would evince an equivalent elevated risk for sexual revictimization vis-à-vis the demographic risks that have been identified in the sexual abuse literature. In contrast, rates of sexual revictimization are quite high among older youth (Arata, 2000; Fargo, 2009), and emerging research has shown that sexually abused boys are also at risk for sexual revictimization (Aosved et al., 2011). More research is needed to understand whether girls compared to boys and children compared to adolescents are at greater sexual revictimization risk.

The current study aimed to address the aforementioned gaps in sexual revictimization research. Sexual abuse is a risk factor for sexual revictimization, but the unique effect of sexual abuse on sexual revictimization over and above the effects of other forms of child abuse and neglect has yet to be tested. Contextual factors such as community disadvantage and engagement have been documented to influence rates of sexual abuse (Drake & Pandey, 1996; Finkelhor, 1993), though little research has investigated links between community factors and sexual revictimization. Lastly, child factors such as age and gender have gone untested in

associations between sexual abuse, the community environment, and sexual revictimization, though some research suggests demographically diverse youth are not at comparable risk for sexual revictimization (Arata, 2000; Briere & Elliott, 2003; Fargo, 2009; Finkelhor et al., 2014; Pereda et al., 2009). This second study targets these gaps with the following aims: (a) to examine the link between child sexual abuse compared to other forms of child maltreatment and sexual revictimization, (b) to test the direct and moderating effects of community disadvantage and engagement on sexual revictimization, and (c) to inspect how these associations vary by child age and gender.

A Developmental-Ecological Perspective on Youth Sexual Revictimization

Child sexual abuse and the development of sexual revictimization risk. Child sexual abuse sets in motion a downstream cascade of developmental risks that place abused youth at risk for being sexual revictimized (Finkelhor, Ormrod, & Turner, 2009; Maker et al., 2001). Due to the developmentally inappropriate nature of child sexual abuse, victims' suffer dramatically altered perceptions of what is healthy and normative sexuality (Finkelhor, 1987). Additionally, sexually abused youth report feeling a low sense of agency over their ability to avoid sexual violence (C. Peterson & Seligman, 1983) and become acquiescent to others' attempts at sexual coercion (Messman & Long, 1996). These developmental maladaptations lead to heightened sexual risk-taking behaviors (Das & Otis, 2016), which ultimately increase the risk for sexual revictimization (Cuevas et al., 2010; Fargo, 2009; Ullman & Vasquez, 2015). However, children with other forms of maltreatment are also at risk for sexual revictimization (Finkelhor et al., 2007b; Stermac et al., 2002), and little research has compared the influence of sexual abuse against other maltreatment types on increased sexual revictimization risk.

The community ecology of sexual revictimization. The ecological-transactional model (Cicchetti & Valentino, 2006) purports that maltreated youth develop within a contextual framework of proximal (e.g., child demographics) and distal (e.g., community environment) risk and protective factors. These influences compose a balance of vulnerability and protection that affects youths' likelihood of attaining healthy developmental outcomes such as reaching adulthood without experiencing sexual violence (Cicchetti & Valentino, 2006; Grauerholz, 2000). For example, community social structures such as schools and neighborhoods provide opportunities for interactions between the youth and other community members. Among socioeconomically impoverished communities, youth and their families are exposed to harmful social exchanges such as community violence, which decreases their likelihood of accessing supports within the community during times of need (Coulton, Korbin, & Su, 1999; Gapen et al., 2011; Lynch & Cicchetti, 1998; Overstreet & Mazza, 2003). In engaged communities, exchanges are often positive which promotes healthy development and buffers youth risk outcomes, ultimately leading to successful and uninhibited transitions to young adulthood (Greenberg et al., 2003). However, the role of distal risk and protective community factors such as community disadvantage and engagement on the link between child sexual abuse and sexual revictimization are not well documented despite the numerous calls made to encourage this line of research (Campbell, Dworkin, & Cabral, 2009; Classen et al., 2005; Grauerholz, 2000; Pittenger et al., 2016).

For sexually abused youth, community disadvantage may compound their risk of sexual revictimization for several reasons. Families who live in disadvantaged communities experience harsh environments and excessive daily stress (Kiser & Black, 2005). Under these conditions, stressors often gradually outweigh supports, increasing the probability of negative events

(Belsky, 1993) such as sexual revictimization. For example, parents in low-income areas lack vital resources such as quality childcare (Burchinal, Nelson, Carlson, & Brooks-Gunn, 2008), which can undermine families' efforts to maintain the supervision of their children. There is consistent evidence that community environments influence the likelihood of maltreatment occurrence including forms of child abuse such as sexual abuse (Drake & Pandey, 1996; Turner, Finkelhor, & Ormrod, 2007; Turner, Shattuck, Hamby, & Finkelhor, 2013). These data suggest that sexual revictimization risk may also be modulated by environmental factors. Furthermore, studies show that resource-poor neighborhoods evince higher rates of sexual crimes (Turner et al., 2013) and contain more convicted sexual offenders (Tewksbury & Mustaine, 2008). Furthermore, related influences such as familial economic disadvantage are documented risk factors for sexual revictimization (Fergusson et al., 1997; Oshima et al., 2014). Based on this evidence and an existing theoretical framework (Cicchetti & Valentino, 2006; Grauerholz, 2000), the current study examines the influence of community disadvantage on youths' vulnerability to sexual revictimization.

Community engagement is the level of connectedness within a community. It includes members' informal and formal participation in public activities and community support (Greenwald, Pearson, Beery, & Cheadle, 2006), and community engagement may also impact sexual revictimization rates (Banyard, 2008; Banyard & Cross, 2008; Banyard, Plante, & Moynihan, 2004). Strong engagement within a community maximizes the potential of sexual violence prevention efforts (Casey & Lindhorst, 2009; Jennings, Parra-Medina, Hilfinger Messias, & McLoughlin, 2006). For example, bystander interventions, where community members identify and interrupt rape events (Banyard et al., 2004), are more likely to be successfully implemented in supportive and engaged communities (Banyard, 2008). Engaged

communities also provide interpersonal and emotional support to sexually abused youth, fostering their recovery from the abuse (Banyard & Cross, 2008) and potentially reducing their likelihood of sexual revictimization. Despite the plausibility of community engagement incurring a protective influence on youths' likelihood of sexual revictimization, this has yet to be empirically tested.

Child Sexual Abuse, Child Gender and Age, and Risk for Sexual Revictimization

Gender. Whether sexually abused girls or boys are at greater risk for sexual revictimization is not well understood. Studies previously documented that girls are at higher risk for child sexual abuse than boys (Briere & Elliott, 2003; Finkelhor et al., 2014; Pereda et al., 2009). Perhaps due to the higher rate of child sexual abuse among girls versus boys, most studies examining the link between child sexual abuse and sexual revictimization utilized samples of girls only (Arata, 2002; Bramsen et al., 2013; Messman-Moore & Long, 2003), and little research examined the link between child sexual abuse and sexual revictimization among boys. The existing findings suggested that sexually abused boys experience sexual revictimization at twice the rate of non-sexually abused boys (Aosved et al., 2011). Sexually abused boys may be at similar risk for sexual revictimization compared to sexually abused girls due to the psychological and behavioral sequelae of sexual abuse (e.g., depressive symptoms, risk-taking behaviors) that place sexually abused girls at risk for sexual revictimization (Fargo, 2009; Testa, Hoffman, & Livingston, 2010). However, more research is needed to understand how gender influences sexual revictimization risk.

Age. Little is understood about the influence of child age on risk for sexual revictimization among sexually abused youth, though developmental research can be used to inform the current investigation's hypotheses. Sexually abused children, compared to sexually

abused adolescents, may be more susceptible to sexual revictimization for several reasons. Younger youth are less likely to perceive sexual advances as threatening (Ruggiero et al., 2000) and are more vulnerable to perpetrators who take advantage of burdened caregivers' inability to provide sufficient protective strategies such as parental monitoring (Fleming et al., 1997). Furthermore, younger youth are not physically mature enough to defend themselves from perpetrators (Finkelhor, 1993). Thus, children appear to be at risk for sexual revictimization. Adolescence also may comprise a critical period of vulnerability to sexual revictimization due to several normative developmental factors. Compared to children, adolescent youth engage in more risk-taking behaviors (Steinberg, 2005), seek increased autonomy from their parents, exhibit greater sexual awareness, and gain more access to drugs and alcohol (Steinberg & Morris, 2001). Behaviors such as sexual risk-taking and substance abuse increase the risk of sexual revictimization in adulthood (Arata, 2000; Fargo, 2009). However, the exact relations between child age and sexual revictimization rates among sexually abused youth are not well understood.

The Aims of the Second Study

Child sexual abuse is linked with increased likelihood of sexual revictimization later in life (Krahe, 2000; Nelson et al., 2002; Rich et al., 2005; Roodman & Clum, 2001; Siegel & Williams, 2003; Smith et al., 2003; Ullman & Vasquez, 2015). The current study aims to generate knowledge on sexual revictimization by examining sexual revictimization rates among sexually abused youth compared to youth with other forms of child maltreatment. Based on past work on sexual abuse (Browne & Finkelhor, 1986; Messman & Long, 1996; C. Peterson & Seligman, 1983), it was hypothesized that sexual abuse, compared to other maltreatment types, would lead to increased sexual revictimization probability. Furthermore, the present

investigation also seeks to fill knowledge gaps in the sexual revictimization literature by examining the role of contextual factors. Community disadvantage (Turner et al., 2013) and engagement (Banyard, 2008) have been identified to influence rates of sexual violence. Thus, these community factors are expected to have respectively similar effects on sexual revictimization risk. Lastly, the associations between sexual abuse, sexual revictimization, and community factors are compared among girls versus boys as well as children versus adolescents. Based on research showing that girls (Briere & Elliott, 2003; Finkelhor et al., 2014; Pereda et al., 2009) and children (Finkelhor, 1993) are at increased risk for sexual abuse compared to boys and adolescents, it was anticipated that girls and children would evince the greatest levels of risk for sexual revictimization. The specific aims and respective hypotheses of this study are outlined below (see Figure 11 for a conceptual model):

Aim 1: To study the unique influence of child sexual abuse on sexual revictimization in childhood and adolescence compared to other forms of maltreatment among youth involved with child protective services.

Hypothesis 1: Sexually abused youth compared to youth with other forms of maltreatment will be at increased risk for sexual revictimization.

Aim 2: To study the direct effect of community disadvantage on sexual revictimization as well as the exacerbating effect of community disadvantage on the link between child sexual abuse and sexual revictimization.

Hypothesis 2a: Maltreated youth in communities in areas of greater disadvantage will evince increased risk for sexual revictimization compared to maltreated youth in areas of lesser disadvantaged communities.

Hypothesis 2b: Sexually abused youth in areas of greater disadvantage will evince increased risk for sexual revictimization compared to sexually abused youth in areas of lesser disadvantaged communities.

Aim 3: To study the direct effect of community engagement on sexual revictimization as well as the buffering effect of community engagement on the link between child sexual abuse and sexual revictimization.

Hypothesis 3a: Maltreated youth in communities with greater engagement will evince decreased risk for sexual revictimization compared to maltreated youth in communities with lesser engagement.

Hypothesis 3b: Sexually abused youth in communities with greater engagement will evince decreased risk for sexual revictimization compared to sexually abused youth in communities with lesser engagement.

Aim 4: To examine the gender differences in the associations between sexual abuse, sexual revictimization, and community factors.

Hypothesis 4: Female youth will be at higher risk for sexual revictimization compared to boys in all associations.

Aim 5: To examine the differences between children versus adolescents in the associations between sexual abuse, sexual revictimization, and community factors.

Hypothesis 5: Younger youth will be at higher risk for sexual revictimization compared to older youth in all associations.

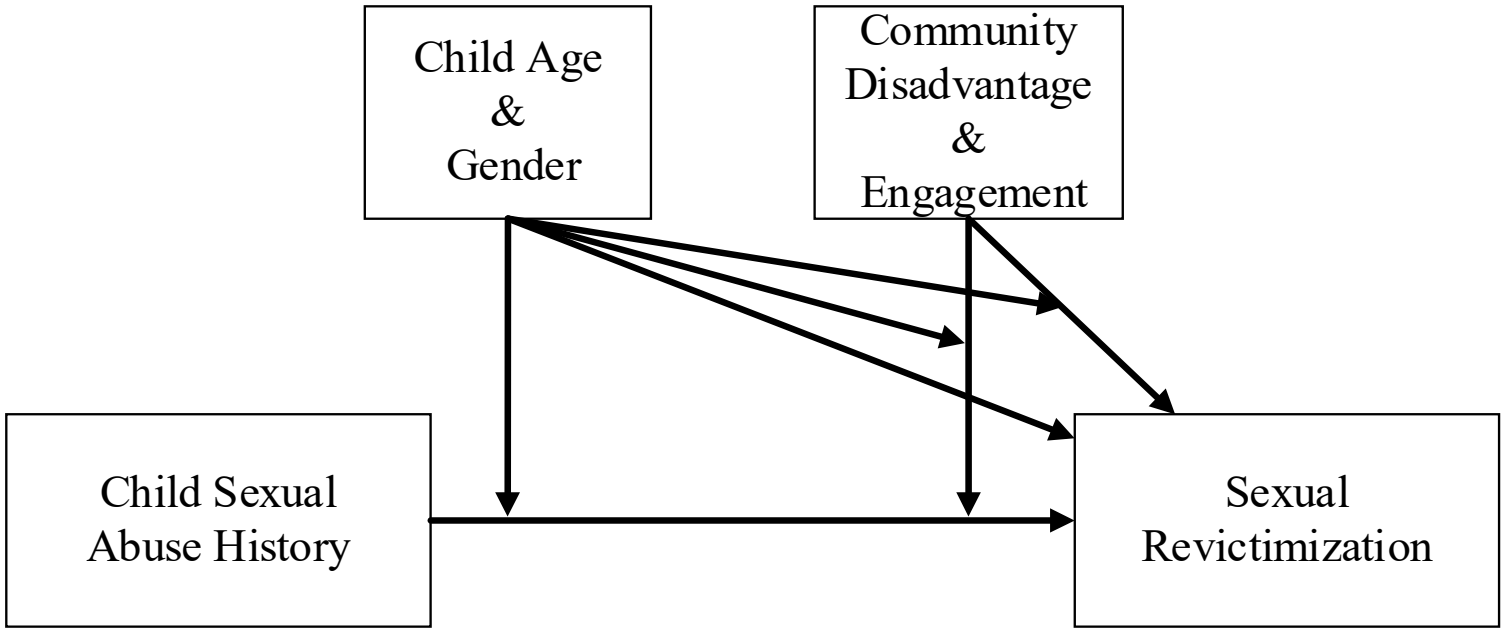

Figure 11. Conceptual Framework for the Second Study.

Methods

Sample

The current investigation used data from the National Survey of Child and Adolescent Well-being (NSCAW-I), a nationally representative, longitudinal dataset of children and families investigated for child maltreatment. The sample included 5,501 youth (50.30% female; 51.20% Caucasian) from predominantly low-income families (60.30% of families earned less than $25,000 annually). Data were taken from four waves: baseline (M_{ageW1} = 5.70, SD_{ageW1} = 4.81), 18 months post-baseline (M_{ageW2} = 6.96, SD_{ageW1} = 4.88), 36 months post-baseline (M_{ageW3} = 8.26, SD_{ageW3} = 4.83), and 72 months post-baseline (M_{ageW4} = 11.67, SD_{ageW4} = 5.31). The Institutional Review Board approved this study of secondary data (ID#STUDY00000954 and MOD00005888).

Measures

Sexual abuse history (Wave 1). Sexual abuse history was assessed at baseline by caseworkers via the Modified Maltreatment Classification System (English & LONGSCAN Investigators, 1997; Manly et al., 1994). The Maltreatment Classification System was developed to use official documentation of child welfare investigations to obtain maltreatment details. For the NSCAW-I project, formally trained research assistants used the Modified Maltreatment Classification System to code child protective services notes into specific maltreatment variables. For the current study, documented child sexual abuse cases were coded as 1 and cases of other forms of maltreatment (e.g., physical abuse, emotional abuse, neglect) were coded as 0. For the current sample, the investigations into child maltreatment were closed sometime between October 1, 1999 and December 31, 2000 (NSCAW Research Group et al., 2002).

Community disadvantage (Wave 1). Data on community disadvantage were obtained for the NSCAW-I sampling clusters from the 2000 US Census. A *z*-score composite was created using the percentage of families under 150% of the poverty line, the percentage of single-headed households, and the percentage of children living in poverty per each census tract. Higher values reflected greater community disadvantage. In the current study, reliability was excellent (α = .91).

Community engagement (Wave 1). Data on community engagement were also taken from the 2000 US Census. The respondents for each census tract answered questions about their community's engagement and supportiveness (e.g., *I worked on a community service project in the last year, I think that most people in the community are honest, I entertained people in the home in the last year*). Responses ranged from one to four with lower responses indicating lesser agreement and higher responses indicating greater agreement. The responses were averaged across census tracts. In the current study, reliability was good (α = .70).

Demographic factors (Wave 1). Older youth self-reported their gender and age. Caregivers reported this information for younger youth. For multiple group comparison analyses, age was categorized as the following: childhood (ages 0-12) and adolescence (ages 13-15). The continuous reports of child age in years were used as controls in other analyses.

Covariates (Wave 1). In the present study, minority status and familial use of economic supports were covaried with the main variables. Older youth self-reported their minority status while younger youth had reports supplied by their caregiver (0 = white, 1 = minority

race/ethnicity). Caregivers reported the number of economic supports (e.g., TANF, food stamps, disability) utilized by the family household.

Sexual revictimization (Waves 2 – 4). Caregivers and caseworkers reported sexual revictimization occurrences at each post-baseline wave. Parents answered the following two items on the Sexual Abuse subscale of the Parent-Child Conflict Tactics Scale (Straus, Hamby, Finkelhor, Moore, & Runyan, 1998): *In the past 12 months, has your child been touched in a sexual way by an adult or older child when they did not want to be touched that way? Or has your child been forced to touch an adult or older child in a sexual way including anyone who was a member of your family, or anyone outside the family?* Caseworkers reported if additional reports of child sexual abuse had been made since the initial investigation at each post-baseline wave via the modified Maltreatment Classification System (Manly et al., 1994). Cases where parents and/or the caseworker made reports of sexual revictimization were coded as 1 (*sexual revictimization occurred*), and cases where neither the parents nor the caseworker made a report of sexual revictimization were coded as 0 (*no sexual revictimization occurred*). This variable was treated as a dichotomous outcome in all analyses. To account for sexual revictimization cases that were instances of repeated sexual abuse by the same perpetrator, all youth who were reported for post-baseline sexual revictimization with the same perpetrator type (e.g., father, mother, uncle, friend) that was documented for the baseline sexual abuse perpetration were coded as not having experienced sexual revictimization (n = 14). Thus, the remaining cases of sexual revictimization were committed by perpetrators other than those who committed the baseline sexual abuse.

Analytic Plan

Data inspection procedures.

Normality. Data were inspected for non-normality issues prior to running multivariate analyses to test the current hypotheses. Variables' skewness and kurtosis values were examined to determine the need for logarithmic transformation to meet underlying statistical assumptions of data normality (Bland & Altman, 1996a, 1996b). Study variables fell within the acceptable range of −2 to +2 (Field et al., 2013; Gravetter & Wallnau, 2011; Trochim, 2006). Outliers were also examined to ensure data normality. However, no variables consistently evinced stark outliers ($3\times SD \geq M$). Thus, no changes were made to the data to address outliers.

Missing data. The average rate of missing data across study variables was 1.51% at baseline and 15.57% at post-baseline waves. Attrition post-baseline was 18.74% at Wave 2, 21.95% at Wave 3, and 24.85% at Wave 4. Older youth ($r = .08$, $p < .001$), Caucasian youth ($r = .14$, $p < .001$), and youth from families accessing multiple economic supports ($r = .16$, $p < .001$) were more likely to have missing data. Missingness was unrelated to gender ($r = -.02$, $p > .05$) and sexual abuse history ($r = -.01$, $p > .05$). Since there was evidence that missingness was related to child age, a missing-at-random assumption was adopted (Little & Rubin, 2002). Thus, missing data were estimated using full-informative maximum likelihood algorithm (Enders & Bandalos, 2001).

Offending estimates. The results of statistical models were reviewed for offending estimates such as negative residual variances and standardized coefficients larger than one (Brown, 2014). No offending estimates were present when testing study hypotheses.

Model fit. For the current study, model fit was evaluated using statistical criteria set by Hu and Bentler (Hu & Bentler, 1999), including absolute fit indices such as the Chi-Square Test

of Model Fit and Root Mean Square Error Of Approximation (RMSEA) (Steiger, 1990) as well as relative fit indices such as the Comparative Fit Index (CFI) (Bentler, 1990) and the Weighted Root Mean Square Residual (WRMR) (B. O. Muthén, 2004). Significant values of the Chi-Square Test of Model Fit indicate poor fit. The RMSEA is bound by 0 and 1 with values above .08 indicating poor fit. The CFI ranges from 0 to 1 with higher values indicating better fit. Values of the WRMR that approach 1 indicate good fit (Hu & Bentler, 1999).

Dataset-specific information. Sampling weights were included in the current statistical models to account for initial participant nonresponse and attrition as well as the oversampling of families with maltreated infants, sexual abuse allegations, and ongoing services in the NSCAW-I sample. Oversampling was intentionally conducted to supply ample power for statistical analyses that would specifically examine those targeted subgroups. The NSCAW-I sample evinced a two-stage stratified sample design, and stratification and clustering weights were included in all models to control for the unique effects of the nine sampling strata and the 92 clustered primary sampling units. Controlling for these dataset characteristics allowed for the findings to be representative of children and families investigated for child maltreatment at the national level (NSCAW Research Group et al., 2002). Interclass correlations (ICC) were examined to assess whether analyses needed to control for the interdependencies between observations within sampling clusters. Further information on NSCAW-I sampling procedures and analytic recommendations can be found elsewhere (Dowd et al., 2007). There was information for 86 census tracts in the current dataset.

Analyses. Mplus version 7.4 (L. K. Muthén & Muthén, 2017) was used to test study hypotheses via logistic regression analyses within a structural equation modeling framework. Odds ratios are presented as the sexual revictimization outcome was modeled as a dichotomous

variable. The weighted least squares mean- and variance-adjusted estimation (B. O. Muthén, 1993) was used as the model estimator.

Statistical models. Several statistical models were used to test each of the current study hypotheses.

Direct effect model. The first model established the direct effect of child sexual abuse history on sexual revictimization with sexual abuse being compared against other forms of maltreatment. This model was run with the full sample, and then the sample was split into groups to test differences among children versus adolescents and boys versus girls.

Observed moderation by community disadvantage. A moderation model tested the direct and moderating effects of community disadvantage on sexual revictimization. Community disadvantage was used as an observed moderator. This model was run with the full sample in addition to two multiple group comparisons to test differences by child age and gender.

Observed moderation by community engagement. A moderation model tested direct and moderating effects of community engagement on sexual revictimization. Community engagement was used as an observed moderator. This model was run with the full sample as well as with two multiple group comparisons to test differences by child age and gender.

Multiple group moderations by age and gender. The full sample models at each stage were split into multiple-group models to show differences in associations among sexual abuse history, sexual revictimization, and community factors by age and gender. Comparisons were between boys and girls as well as between children (ages 0 to 12) and adolescents (ages 13 to 15). Less restrictive (i.e., unconstrained) and more restricted (i.e., constrained) versions were modeled, and the chi-squared difference between the nested multiple-group models was used to

compare the effects of age and gender (Asparouhov & Muthén, 2006). Standard significance levels ($\Delta\chi^2$ (1) = 3.84, p = .05) were used as the cutoff for significant group differences.

Results

Preliminary Analyses

Descriptive statistics and bivariate associations. Of the total sample, 12.5% of youth (n = 688) were sexually abused at baseline and 7.7% of youth (n = 424) were sexually revictimized post-baseline. See Figures 12, 13, and 14 for bar graphs of sexual abuse and sexual revictimization rates. Bivariate correlations showed that sexual abuse was significantly and positively related to sexual revictimization (r = .11, p < .01), older child age (r = .22, p < .01), and female child gender (r = .15, p < .01) as well as significantly and negatively related to minority status (r = −.05, p < .01) and family economic supports (r = −.09, p < .01). Community disadvantage was significantly and positively associated with minority status (r = .20, p < .01) and family economic supports (r = .09, p < .01) as well as significantly and negatively associated with community engagement (r = −.27, p < .01). Community engagement was significantly and negatively associated with minority status (r = −.04, p < .05) as well as significantly and positively associated with family economic supports (r = .04, p < .01). See Table 3 for information on correlations, means, and standard deviations of study variables.

Inter-class correlations. To address the potential for non-independent observations due to clustered sampling methods, interclass correlations for sexual revictimization were computed. First, the between-level variance for the outcome variable was examined. Analyses revealed that the between-level variance for sexual revictimization was low but significant (σ^2 = .005, p < .01). Second, the interclass correlation was computed with the following equation:

$$\rho = \sigma^2/(\pi^2/3 + \sigma^2)$$

$\rho = .005/(9.86/3 + .005)$

$\rho = .005/(3.29 + .005)$

$\rho = .005/3.291$

$\rho = .0015$

Third, the design effect was computed with the following equation where m is the average cluster size:

$D_{\text{eff}} = 1 + (m - 1)\,\rho$

$D_{\text{eff}} = 1 + (60 - 1)\,.0015$

$D_{\text{eff}} = 1 + (59)\,.0015$

$D_{\text{eff}} = 1 + .089\; D_{\text{eff}} = 1.089$

The design effect was lower than the commonly used cutoff ($D_{\text{eff}} < 2$) (B. O. Muthén, Satorra, & Muthén, 1995), which suggested that the sexual revictimization data did not violate basic statistical assumptions of observation independence due to the sampling methodology. Thus, multilevel modeling was not deemed necessary to control for data non-independence due to variations between sample clusters.

Sexual Abuse History and Sexual Revictimization

Predictors and outcomes were modeled in a structural equation modeling framework to test the link between child sexual abuse history and sexual revictimization. The paths from minority status and family economic supports to sexual revictimization were non-significant and, therefore, were subsequently trimmed out of statistical models. Due to the temporally parallel nature of the child maltreatment investigation and the census data, no regression paths from sexual abuse history to community disadvantage and engagement were freed though these variables were allowed to covary. The initial model was just identified: (χ^2 (0) = 0.00, p = .00;

CFI = 1; RMSEA = .00; WRMR = .01). Sexual abuse history significantly increased sexual revictimization risk (OR = 1.58, $p < .01$, 95% CI [1.16, 2.16]) such that sexually abused youth were 58% more likely to be sexually revictimization compared to youth with other forms of child maltreatment. This effect remained significant and rose to 60% for children (OR = 1.60, $p < .01$, 95% CI [1.13, 2.28]) but was not significant for adolescents (OR = 1.47, $p > .05$, 95% CI [0.85, 2.56]). The difference in effects between children and adolescents was not statistically significant ($\Delta\chi^2$ (1) = 0.05, $p > .05$). This effect was significant for girls (OR = 1.49, $p < .05$, 95% CI [1.03, 2.16]) and nearly significant for boys (OR = 1.76, $p = .05$, 95% CI [0.99, 3.13]) who evinced a 49% and 75% increase in sexual revictimization likelihood, respectively, compared to youth with other forms of maltreatment. The difference in effects between girls and boys was not statistically significant ($\Delta\chi^2$ (1) = 1.22, $p > .05$). See Figure 15 for a statistical model.

Community Disadvantage as a Moderator

Community disadvantage and the interaction term *community disadvantage × sexual abuse history* were added to the model. Model fit was good: (χ^2 (4) = 5.76, $p = .22$; CFI = .95; RMSEA = .01; WRMR = .53). Community disadvantage was significantly and negatively related to sexual revictimization (OR = 0.96, $p < .05$, 95% CI [0.93, 0.99]), reducing the likelihood of sexual revictimization by 4% per each unit of community disadvantage. Community disadvantage significantly moderated the link between sexual abuse history and sexual revictimization (OR = 1.11, $p < .01$, 95% CI [1.04, 1.19]) such that for each one-unit increase in community disengagement there was a corresponding 11% increase in sexual revictimization risk. This moderation effect was significant for girls (OR = 1.12, $p < .001$, 95% CI [1.06, 1.18]) but not boys (OR = 1.06, $p > .05$, 95% CI [0.91, 1.23]), though the difference

was not statistically significant ($\Delta\chi^2$ (1) = 1.53, $p > .05$). The moderation effect was significant for children (OR = 1.12, $p < .01$, 95% CI [1.03, 1.21]) but not adolescents (OR = 1.08, $p > .05$, 95% CI [0.97, 1.21]), though the difference was not statically significant ($\Delta\chi^2$ (1) = 0.17, $p > .05$). The moderations were probed, and results suggested that community disadvantage did not increase the risk of sexual revictimization. Instead, community disadvantage was negatively related to child sexual abuse history. See Figure 16 for a statistical model and Figure 17 for a graphing of the moderation. Also, see Figures 18 and 19 for gender and age comparisons of the moderation, respectively.

Community Engagement as a Moderator

Community engagement and the interaction term *community engagement × sexual abuse history* were added to the model after removing community disadvantage and the interaction term *community disadvantage × sexual abuse history*. Model fit was good: (χ^2 (5) = 8.17, $p = .14$; CFI = .96; RMSEA = .01; WRMR = .64). Community engagement was not significantly related to sexual revictimization (OR = 0.98, $p > .05$, 95% CI [0.79, 1.22]). Community engagement significantly moderated the link between sexual abuse history and sexual revictimization (OR = 0.41, $p < .001$, 95% CI [0.28, 0.58]) such that for each one-unit increase in community engagement there was a corresponding 59% reduction in sexual revictimization risk. This moderation effect was significant for boys (OR = 0.27, $p < .05$, 95% CI [0.09, 0.80]) and girls (OR = 0.54, $p < .05$, 95% CI [0.32, 0.91]), and the difference in effects was not statistically significant ($\Delta\chi^2$ (1) = 2.28, $p > .05$). The moderation was also significant for children (OR = 0.28, $p < .001$, 95% CI [0.18, 0.42]) but was not significant for adolescents (OR = 0.89, $p > .05$, 95% CI [0.36, 2.16]). Between children and adolescents, the difference in moderation effect by community engagement was statistically significant ($\Delta\chi^2$ (1) = 6.10, $p < .05$). The moderations

were probed, and results revealed that youth with sexual abuse histories who lived in highly engaged communities were less likely to experience sexual revictimization compared to youth with sexual abuse histories who lived in poorly engaged communities. See Figure 20 for a statistical model and Figure 21 for a graphing of the moderation. Also, see Figures 22 and 23 for comparisons of the moderation by gender and age, respectively. Lastly, see Table 4 for model estimates from all analyses.

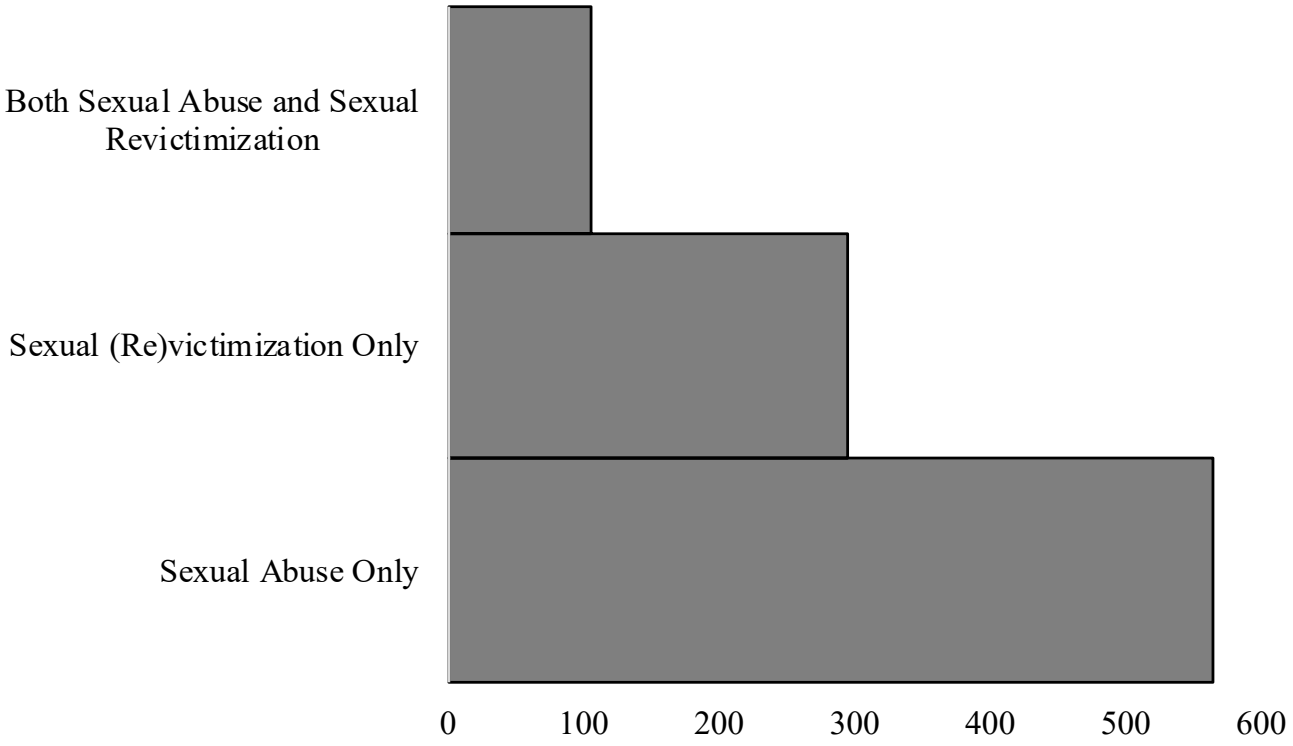

Figure 12. Bar Graph of Sexual Abuse and Sexual Revictimization Rates with Full Sample (N = 5,501).

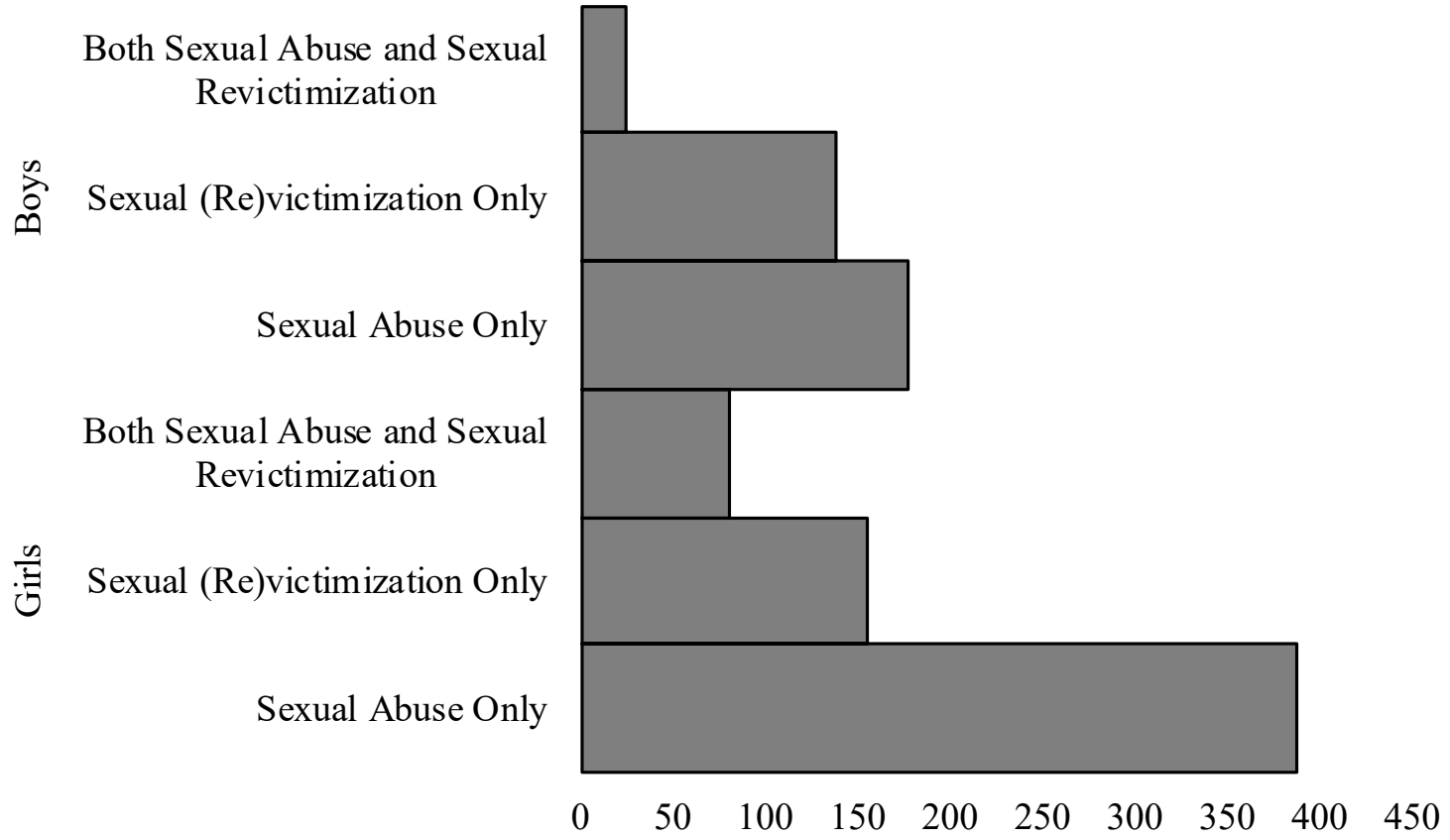

Figure 13. Bar Graph of Sexual Abuse and Sexual Revictimization Rates with Girls (n = 2,769) and Boys (n = 2,732).

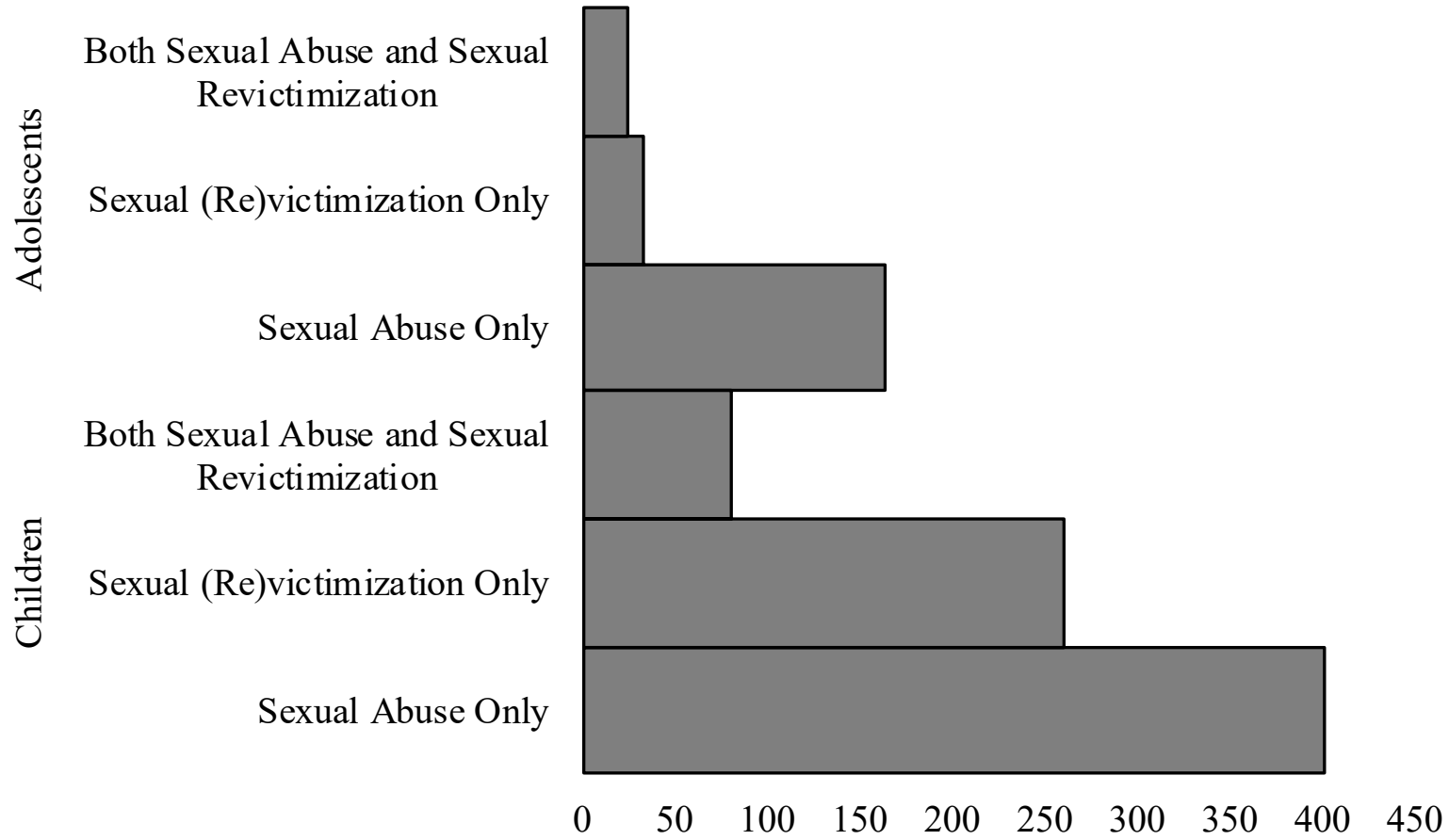

Figure 14. Bar Graph of Sexual Abuse and Sexual Revictimization Rates with Children (n = 4,590) and Adolescents (n = 910).

Table 3. Bivariate Correlations, Means, and Standard Deviations of the Second Study (N = 5,501).

	1	2	3	4	5	6	7	8
1. Sexual abuse history[A]	—							
2. Sexual revictimization[A, B]	.11**	—						
3. Community disadvantage[C]	−.02	−.02	—					
4. Community engagement[C]	.01	−.01	−.27**	—				
5. Child age[D]	.22**	.05**	.01	.01	—			
6. Child gender[D]	.15**	.05**	.01	.01	.07**	—		
7. Child minority status[D]	−.05**	−.04**	.20**	−.04*	−.06**	.01	—	
8. Family economic supports[B]	−.09**	.02	.09**	.04**	−.23**	−.01	.16**	—
Mean	—	—	.00	16.07	5.70	—	—	1.25
Standard deviation	—	—	2.76	.69	4.81	—	—	1.22
Frequency	688	424	—	—	—	2769	2681	—
Percentage	12.50%	7.70%	—	—	—	50.3%	48.70%	—

Note. [A] = Case worker report. [B] = Parent report. [C] = Census data. [D] = Child report. Sexual abuse is coded as 1 = sexual abuse, 0 = other maltreatment. Child age reported in years here but used as a categorical variable in multiple group analyses. Child gender coded as 1 = male, 2 = female. Child minority status coded as 0 = white, 1 = racial minority. Means and standard deviations reported for continuous variables; frequencies and percentages reported for categorical variables. The mean of community disadvantage is zero as the variable is a z-score composite of the percentage of families under 150% of the poverty line, the percentage of single-headed households, and the percentage of children living in poverty per each census tract.
* $p < .05$, ** $p < .01$.

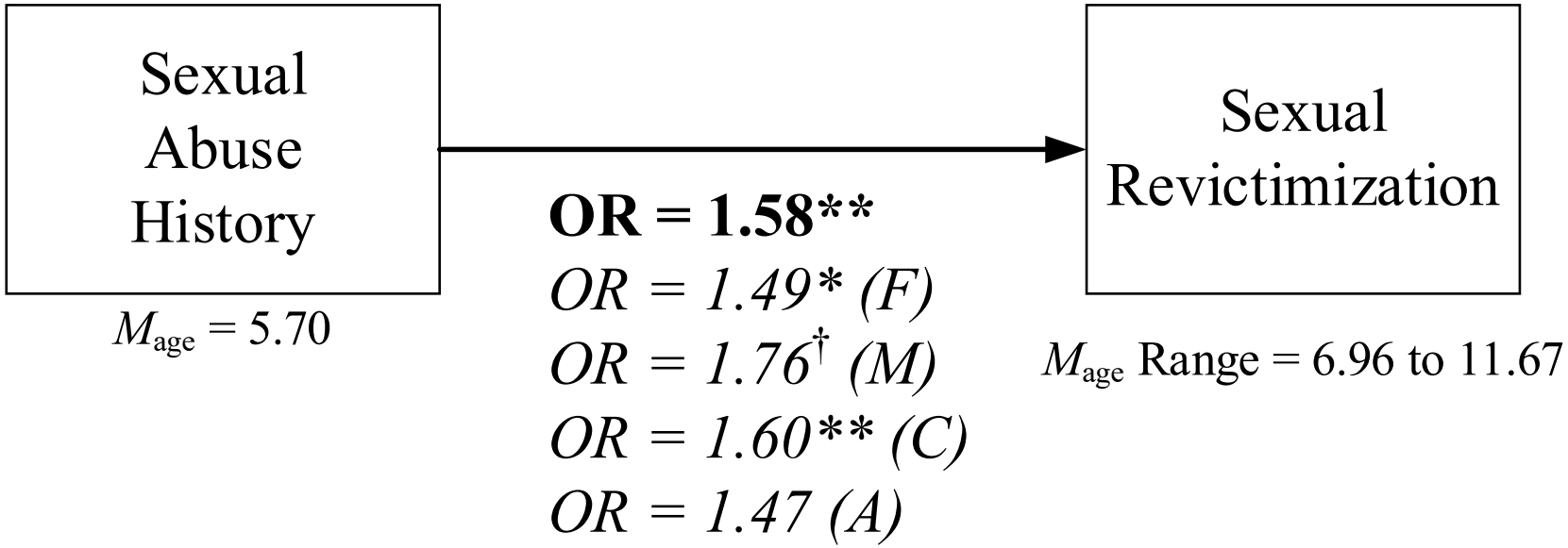

Figure 15. The Direct Link between Sexual Abuse History and Sexual Revictimization (N = 5,501).

Note. Sexual abuse history compared to other forms of child maltreatment. The odds ratio for the entire sample is reported in bold. The odds ratios for females (F), males (M), children (C), and adolescents (A) are reported in italics. Age, gender, minority status, and family economic supports were controlled for. OR = Odds ratio.

† $p < .1$, * $p < .05$, ** $p < .01$.

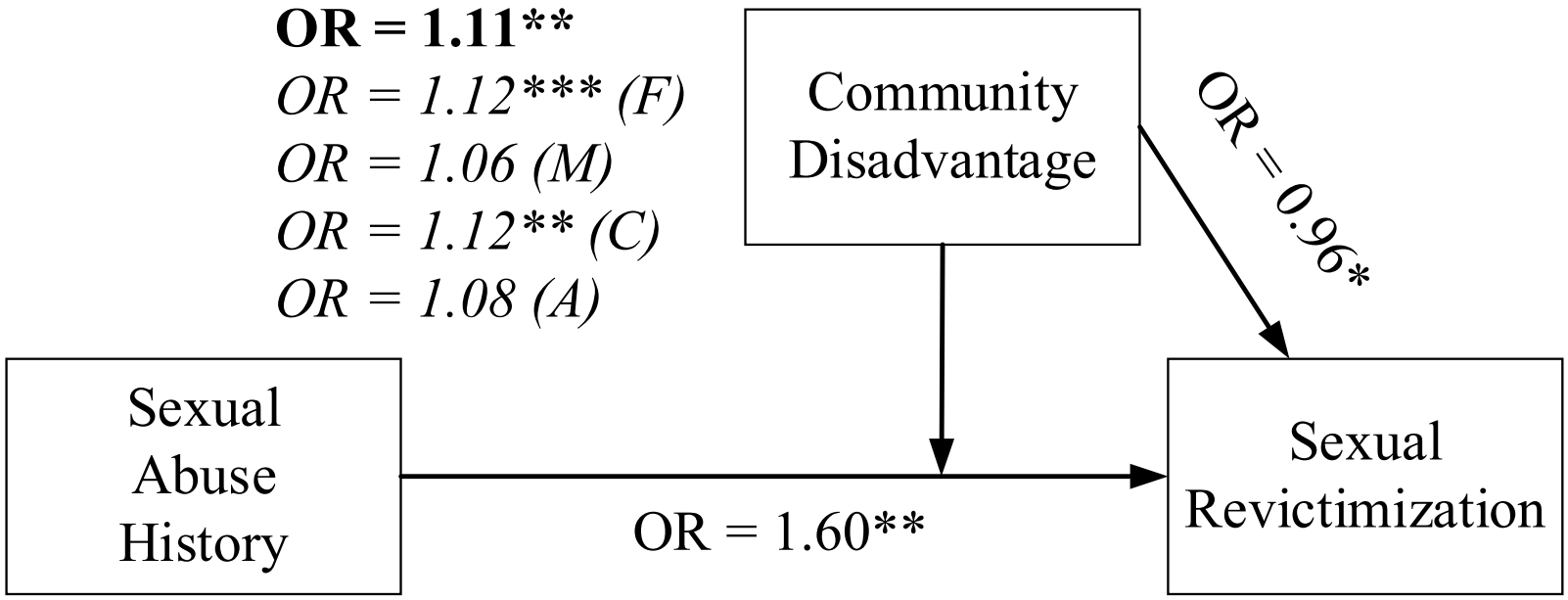

Figure 16. The Moderating Effect of Community Disadvantage (*N* = 5,501).

Note. Sexual abuse history compared to others forms of child maltreatment. The odds ratio for the entire sample is reported in bold. The odds ratios for females (F), males (M), children (C), and adolescents (A) are reported in italics. Age, gender, minority status, and family economic supports were controlled for. Investigations into child maltreatment claims were conducted between October 1, 1999 and December 31, 2000. Census data on community disadvantage were obtained from the 2000 census. OR = Odds ratio.

* $p < .05$, ** $p < .01$, *** $p < .001$.

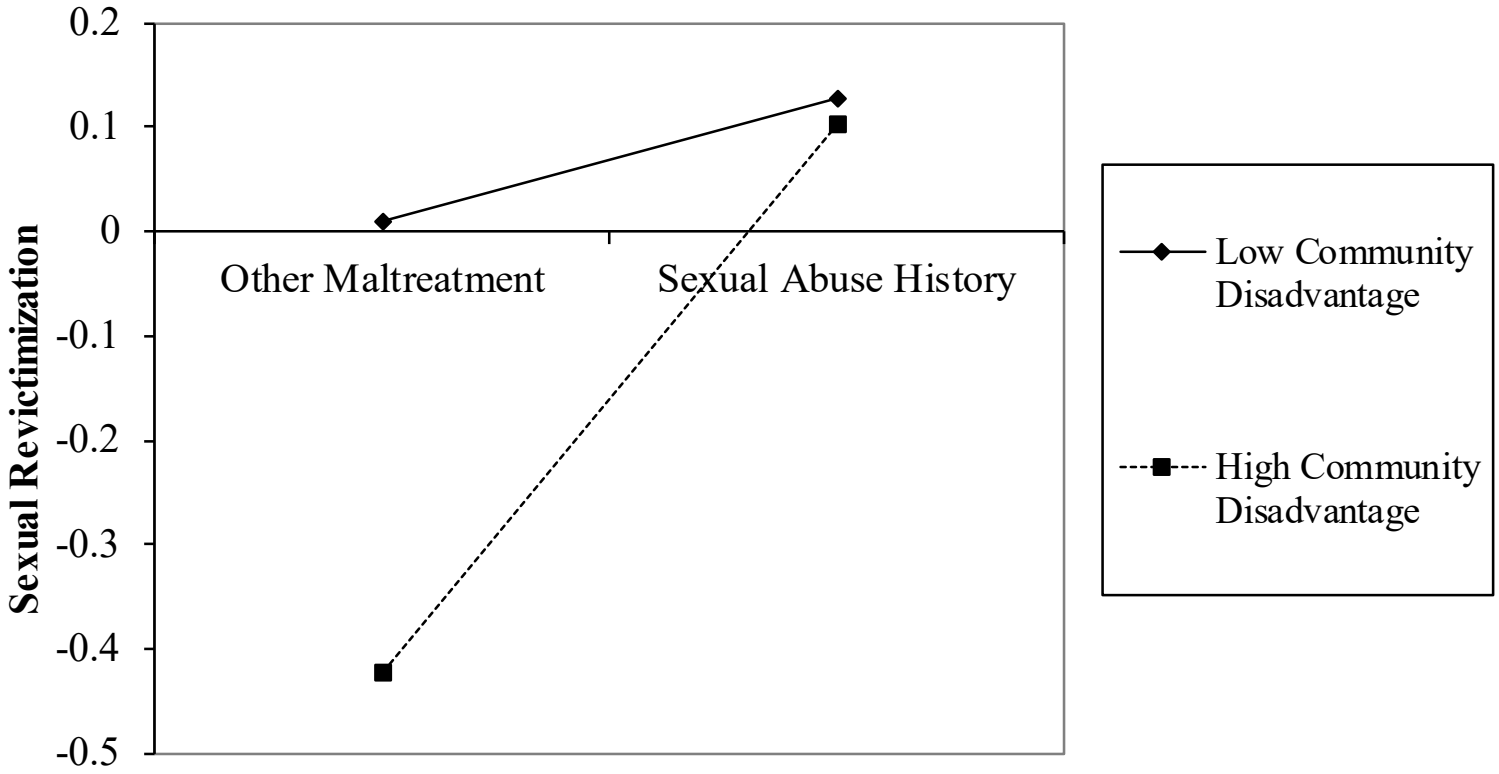

Figure 17. Moderation of the link between Sexual Abuse and Sexual Revictimization by Community Disadvantage (N = 5,501).

Note: The Y-axis values are the logit estimates from the logistic regression path resulting from sexual revictimization being regressed on the sexual abuse history × community disadvantage interaction term.

Figure 18. Gender Differences in the Moderation of the Link between Sexual Abuse History and Sexual Revictimization by Community Disadvantage (N = 5,501).

Note: The Y-axis values are the logit estimates from the logistic regression path resulting from sexual revictimization being regressed on the sexual abuse history × community disadvantage interaction term.

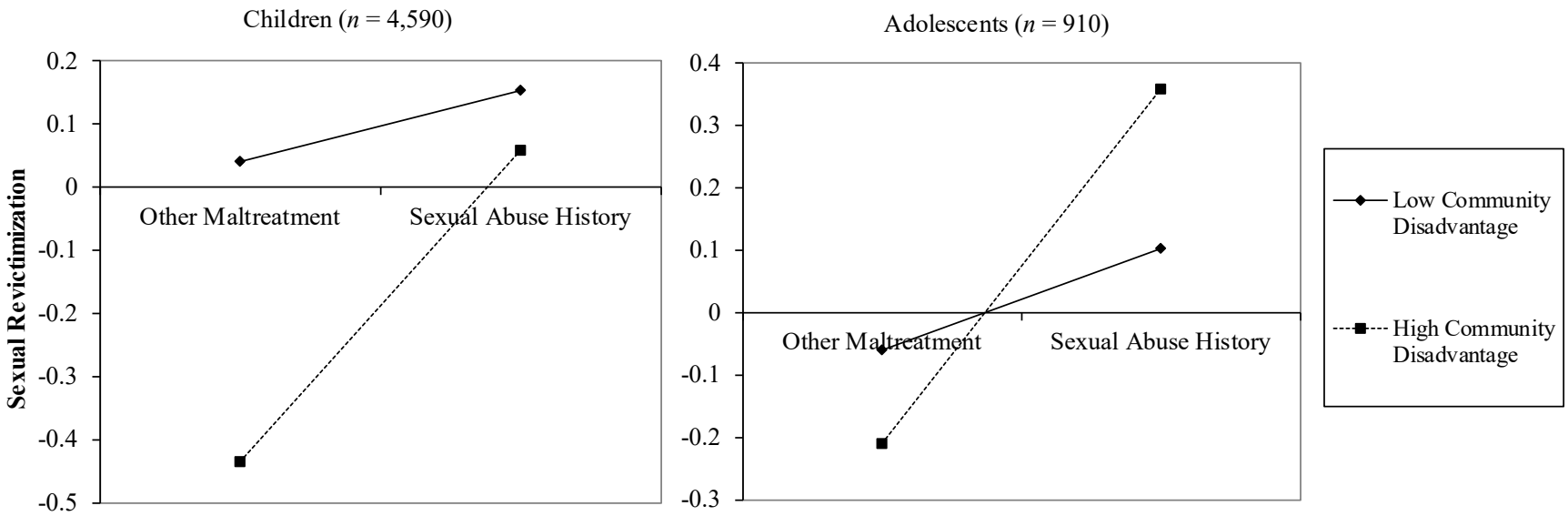

Figure 19. Age Differences in the Moderation of the link between Sexual Abuse History and Sexual Revictimization by Community Disadvantage (N = 5,501).

Note: The Y-axis values are the logit estimates from the logistic regression path resulting from sexual revictimization being regressed on the sexual abuse history × community disadvantage interaction term.

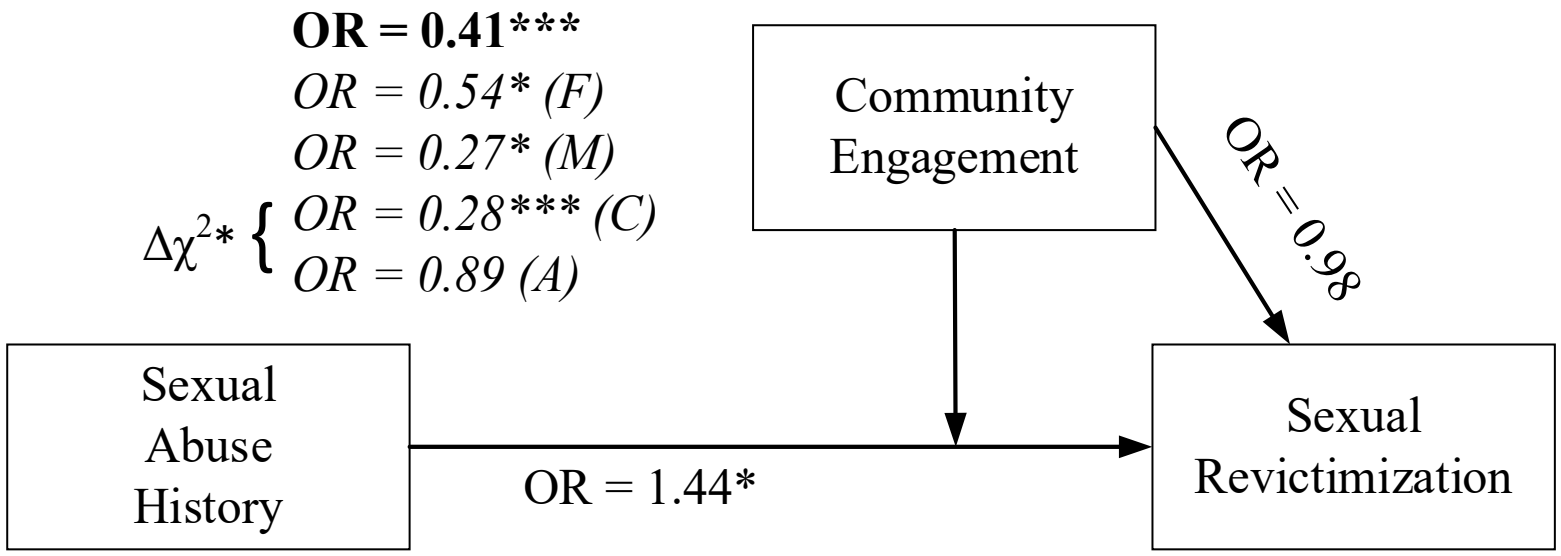

Figure 20. The Moderating Effect of Community Engagement (*N* = 5,501).

Note. Sexual abuse history compared to other forms of child maltreatment. The odds ratio for the entire sample is reported in bold. The odds ratios for females (F), males (M), children (C), and adolescents (A) are reported in italics. Age, gender, minority status, and family economic supports were controlled for. Investigations into child maltreatment claims were conducted between October 1, 1999 and December 31, 2000. Census data on community engagement were obtained from the 2000 census. OR = Odds ratio.

† $p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$.

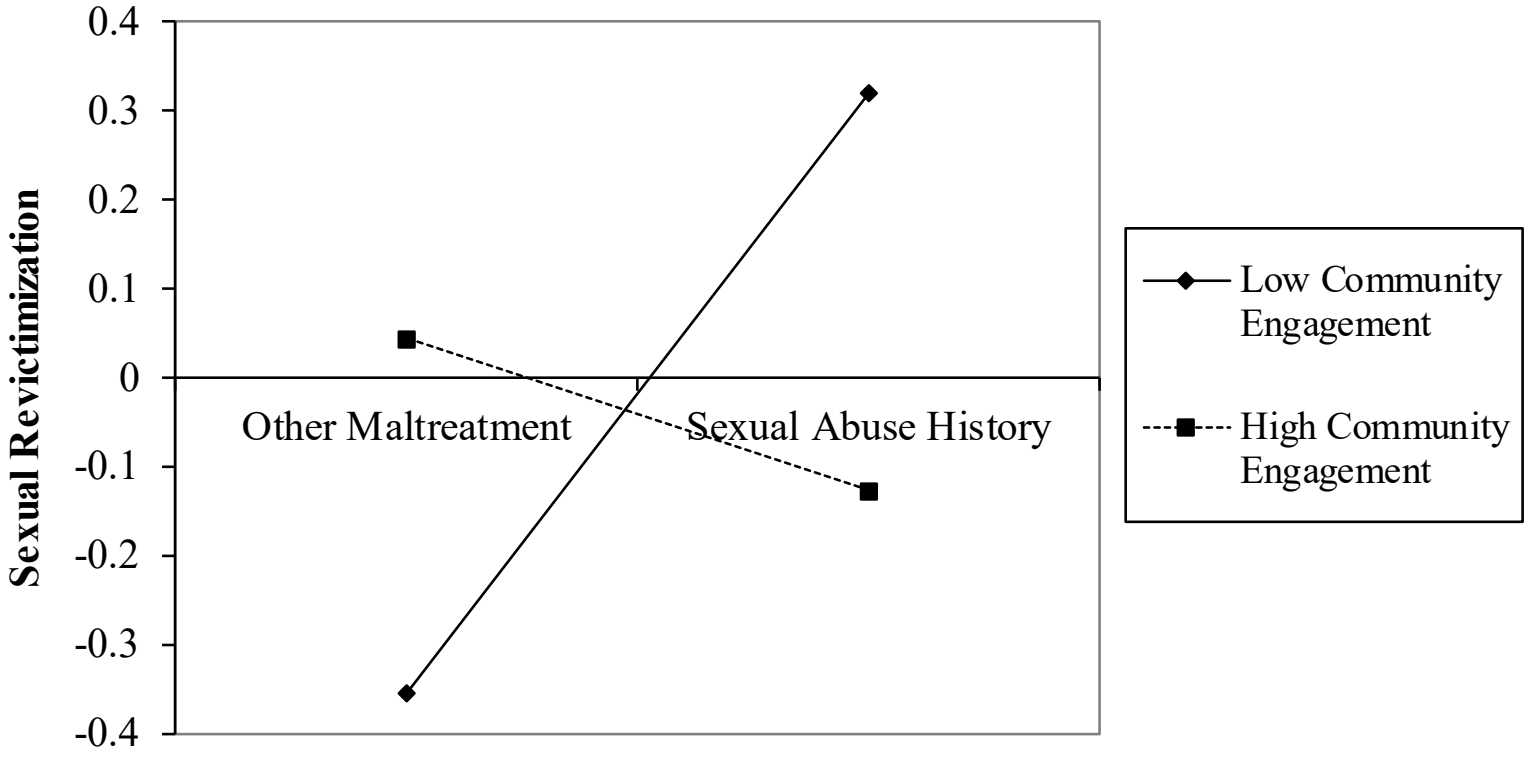

Figure 21. Moderation of the link between Sexual Abuse History and Sexual Revictimization by Community Engagement (N = 5,501).

Note: The Y-axis values are the logit estimates from the logistic regression path resulting from sexual revictimization being regressed on the sexual abuse history × community engagement interaction term.

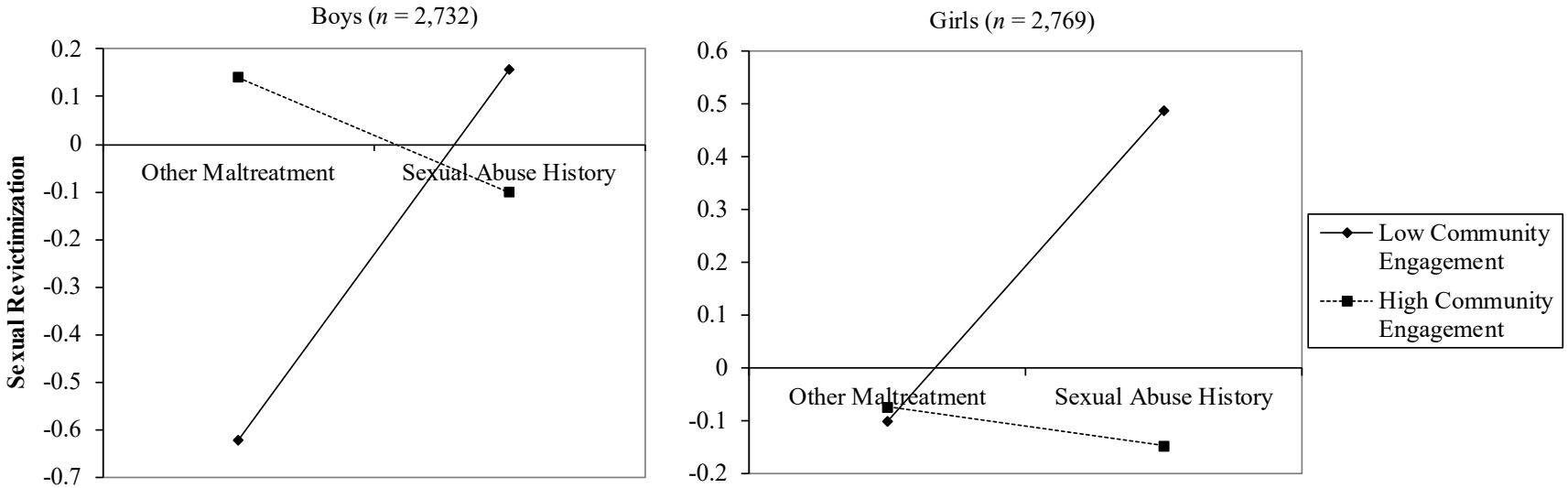

Figure 22. Gender Differences in the Moderation of the Link between Sexual Abuse History and Sexual Revictimization by Community Engagement (N = 5,501).

Note: The Y-axis values are the logit estimates from the logistic regression path resulting from sexual revictimization being regressed on the sexual abuse history × community engagement interaction term.

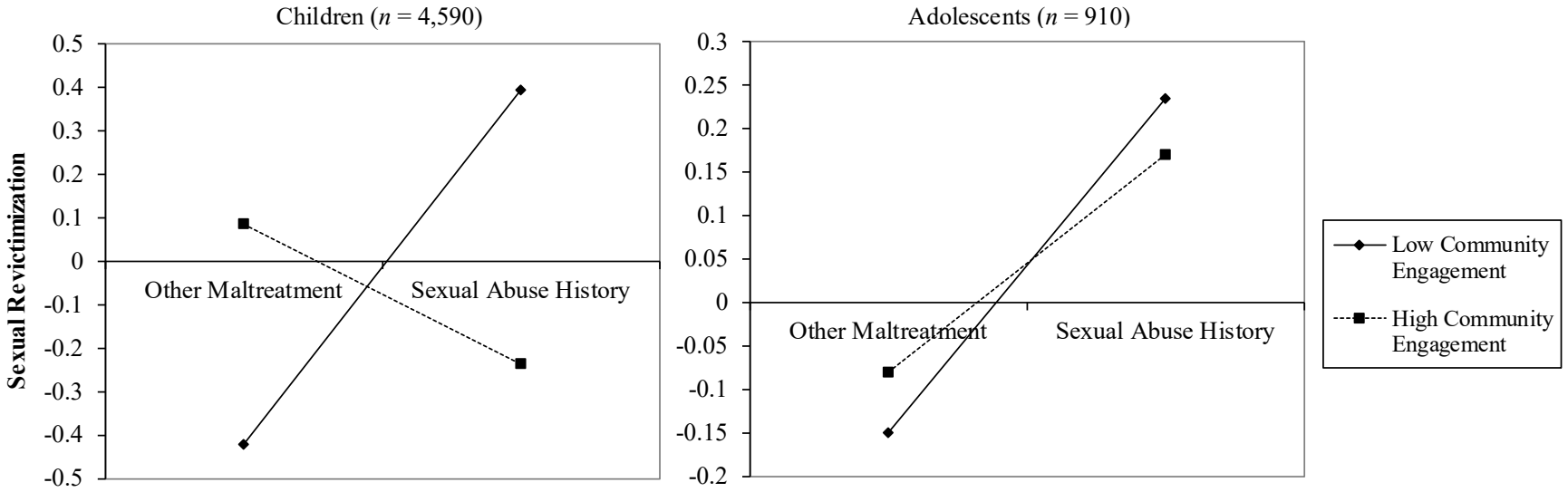

Figure 23. Age Differences in the Moderation of the Link between Sexual Abuse History and Sexual Revictimization by Community Engagement (N = 5,501).

Note: The Y-axis values are the logit estimates from the logistic regression path resulting from sexual revictimization being regressed on the sexual abuse history × community engagement interaction term.

Table 4. Parameter Estimates of Direct and Moderation Effects of the Second Study (N = 5,501).

Sexual Abuse History and Sexual Revictimization	**Logit (SE)**	**OR**	**OR 95% CI**
CSA → SR (N = 5,501)	**0.46 (0.16)**	**1.58**	**[1.16, 2.16]****
For children (n = 4,590)	*0.47 (0.18)*	*1.60*	*[1.13, 2.28]***
For adolescents (n = 910)	*0.40 (0.19)*	*1.47*	*[0.85, 2.56]*
For girls (n = 2,769)	*0.35 (0.19)*	*1.49*	*[1.03, 2.16]**
For boys (n = 2,732)	*0.56 (0.29)*	*1.76*	*[0.99, 3.13]* †
Community Disadvantage	**Logit (SE)**	**OR**	**OR 95% CI**
CD → SR (N = 5,501)	**−0.41 (.02)**	**0.96**	**[0.93, 0.99]***
CSA × CD → SR (N = 5,501)	**0.11 (0.03)**	**1.11**	**[1.04, 1.19]****
For children (n = 4,590)	*0.11 (0.04)*	*1.12*	*[1.03, 1.21]****
For adolescents (n = 910)	*0.08 (0.06)*	*1.08*	*[0.97, 1.21]*
For girls (n = 2,769)	*0.11 (0.03)*	*1.12*	*[1.06, 1.18]****
For boys (n = 2,732)	*0.06 (0.08)*	*1.06*	*[0.91, 1.23]*
Community Engagement	**Logit (SE)**	**OR**	**OR 95% CI**
CE → SR (N = 5,501)	**−0.02 (.11)**	**0.98**	**[0.79, 1.22]****
CSA × CE → SR (N = 5,501)	**−0.90 (0.18)**	**0.41**	**[0.28, 0.10]****
For children (n = 4,590)	*−1.29 (0.21)*	*0.28*	*[0.18, 0.42]***[a]
For adolescents (n = 910)	*−0.12 (0.46)*	*0.89*	*[0.36, 2.16]*[a]
For girls (n = 2,769)	*−0.62 (0.27)*	*0.54*	*[0.32, 0.91]**
For boys (n = 2,732)	*−1.32 (0.56)*	*0.27*	*[0.09, 0.80]**

Note. Bolded test and coefficients refer to the entire sample. Italicized text and coefficients refer to the specified subsamples. Model fit was good for the baseline model with the full sample: $\chi 2$ (1) = 0.04, p = .85; CFI = 1; RMSEA = .00; WRMR = .09. OR = Odds ratio. CSA = Child sexual abuse. SR = Sexual revictimization. CD = Community disadvantage. CE = Community engagement. Covariate effects not shown for clarity.

[a] Significant chi-square difference at the $p < .05$ level.

† $p < .1$, * $p < .05$; ** $p < .01$; *** $p < .001$.

Discussion

The current study aimed to examine the link between child sexual abuse history, compared to other forms of child maltreatment, and sexual revictimization among a sample of youth and their families involved with child protective services. The study also tested the influences of community factors (i.e., engagement, disadvantage) on the association between child sexual abuse history and sexual revictimization. Variations in associations between past sexual abuse, sexual revictimization, and community factors by child gender and age were inspected. It was hypothesized that documented sexual abuse, compared to other forms of child maltreatment, would significantly increase sexual revictimization probability. Additionally, it was expected that community disadvantage would amplify the relation between sexual abuse history and sexual revictimization as well as that community engagement would buffer the link between sexual abuse history and sexual revictimization. Compared to boys, girls were anticipated to evince greater associations between child sexual abuse history and sexual revictimization as well as be more susceptible to the negative influence of community disadvantage and benefit less from the protective effect of community engagement. Similarly, children compared to adolescents were expected to evince an increased link between child sexual abuse history and sexual revictimization. Children were also hypothesized to be more negatively affected by community disadvantage and experience less of a protective effect from community engagement. Findings supported the initial hypothesis that sexual abuse history, compared to other forms of child maltreatment, was significantly related to sexual revictimization risk. Results also indicated that community engagement significantly reduced the link between past sexual abuse and sexual revictimization. This environmental buffering effect was significantly stronger among children compared to adolescents. Results did not find support for the

hypothesis regarding the amplifying role of community disadvantage on the link between sexual abuse history and sexual revictimization risk. Also, there were no statistical gender differences in any models.

Aim 1: The Link between Child Sexual Abuse History and Sexual Revictimization

The present study extended research on the links between history of unique maltreatment types and risk for sexual revictimization prior to young adulthood. Past research showed that sexual abuse, compared to no sexual abuse, is a risk factor for sexual revictimization among adult (Siegel & Williams, 2003) and young adult women (Filipas & Ullman, 2006). Findings from the present study indicated that sexual abuse history was significantly associated with sexual revictimization occurrences in late childhood and adolescence over and above other forms of maltreatment such as physical abuse, emotional abuse, and neglect. Previous research failed to generate a clear understanding of the risk for sexual revictimization among distinct maltreatment types. For example, some studies found that sexually abused youth are at greater risk for sexual revictimization compared to non-sexually abused youth (Fergusson et al., 1997; Oshima et al., 2014). Other research indicated that youth with child maltreatment histories of any type evinced an increased risk for sexual revictimization via heightened mechanistic risk pathways (e.g., greater sexual risk-taking and substance abuse) compared to non-maltreated youth (Fergusson et al., 2008; Lewis, McElroy, Harlaar, & Runyan, 2016). The findings of this investigation suggest that child sexual abuse history is a particularly potent risk factor for sexual revictimization compared to other forms of child maltreatment.

There are several potential explanations for why sexual abuse history increased sexual revictimization risk over and above other forms of maltreatment. Some research documented that learned helplessness plays a role in the link between child sexual abuse and sexual

revictimization (C. Peterson & Seligman, 1983). Sexually abuse youth may see themselves as having deserved the sexual abuse and do not believe they have the power to stop future sexual victimizations from occurring. These feelings of self-blame and lack of agency can place them at greater risk for the same form of victimization (i.e., sexual) in the future (C. Peterson & Seligman, 1983). It is possible that other forms of maltreatment (e.g., physical abuse) do not incur this kind of learned helplessness towards sexual violence but perhaps place youth at heightened risk for forms of violence similar to their maltreatment history (e.g., physical violence) (Hlavka, 2014; Renner & Slack, 2006). Thus, youth with non-sexual forms of maltreatment would show decreased risk for sexual revictimization compared to sexually abused youth. Other explanations emphasized that sexual abuse has negative downstream influences on children's ideas about sexuality, creating an association between the trauma and sexuality. This sexualization of trauma leads to sexually inappropriate behaviors that incur greater sexual revictimization probability compared to other non-sexual adversities (Browne & Finkelhor, 1986). Lastly, child sexual abuse also involves the normalization of sexual coercion and violence such that victims view forced sex as normative and not something to be avoided (Messman & Long, 1996). Youth who experienced emotional or physical abuse may see future emotional and physical victimizations as an acceptable part of life (Dunlap, Golub, Johnson, & Benoit, 2009; Valdez, Lim, & Lilly, 2013) but seek to avoid future sexual victimizations in ways that sexually abused youth do not. More research is needed to determine whether these proposed mechanisms explain the heightened risk for sexual revictimization among sexually abused youth compared to youth with other forms of child abuse and neglect.

Aim 2: The Amplifying Role of Community Disadvantage

The second aim of the current study was to examine the direct and moderating effects of community disadvantage on increased sexual revictimization risk. Previous research on sexual revictimization chiefly focused on individual-level risk behaviors that place individuals at risk for sexual revictimization (Fargo, 2009; Macy, 2008). The present study sought to complement existing knowledge by examining community risk and protective factors. Although investigations have documented that community disadvantage leads to higher rates of child sexual abuse (Mustaine, Tewksbury, Huff-Corzine, Corzine, & Marshall, 2014), its influence on sexual revictimization is not well understood. The current study found that higher levels of community disadvantage significantly and directly decreased sexual revictimization probability, which was in contrast to the study's hypothesis. However, community disadvantage significantly moderated the link between sexual abuse history and sexual revictimization such that sexually abused youth within communities with more disadvantage were at higher risk of sexual revictimization compared to sexually abused youth within communities with more advantage. Surprisingly, probing of the moderation revealed that there were substantial differences in sexual abuse rates between communities with more and less disadvantage such that advantaged communities had more cases of child sexual abuse compared to disadvantaged communities. Other research also documented unintuitive findings showing that neighborhood disadvantage can be a protective factor against youth maladaptation, including participation in risk-taking behaviors (Duprey, Oshri, & Caughy, 2017).

The negative association between community disadvantage and sexual abuse rates may be due to characteristics of the sample. The NSCAW dataset was chiefly comprised of families involved with child protective services due to child maltreatment reports, and the current

analyses compared sexual abuse to other forms of maltreatment. Research previously found that poverty is related to neglect and physical abuse more so than to sexual abuse (Drake & Pandey, 1996; Jonson-Reid et al., 2013). The current study may have correctly identified that forms of maltreatment other than sexual abuse are more strongly related to community disadvantage among the NSCAW sample. However, this does not negate that community disadvantage appears to be related to the association between sexual abuse history and sexual revictimization for sexually abused youth. Greater housing density and number of registered sex offenders, both of which are common characteristics of disadvantaged communities, are associated with higher sexual abuse rates (Mustaine et al., 2014). Comparison samples of non-maltreated youth can be used in future studies to clarify these associations.

Aim 3: The Protective Effect of Community Engagement

The third aim of the current study was to examine the direct and moderating effects of community engagement on sexual revictimization. Based on previous research showing the protective potential of community engagement on risk for sexual violence (Casey & Lindhorst, 2009; Jennings et al., 2006), the hypothesis was that community engagement would reduce the association between child sexual abuse history and sexual revictimization. The current findings showed that community engagement significantly reduced the path from child sexual abuse to sexual revictimization. Probing of the moderation revealed that sexually abused youth in engaged communities were less likely to be sexually revictimized than their counterparts in communities with reduced engagement. Despite the presence of a protective effect (i.e., moderation), there was no promotive effect (i.e., direct link) of community engagement on sexual revictimization. Though surprising, a post-hoc investigation into the descriptive statistics of community engagement revealed that there was little variation in values of community

engagement. This implies that most communities had a relatively similar (and generally elevated) sense of community engagement. This finding may be due to a ceiling effect where by reports of community engagement clustered around the upper possible values and prevented a normative distribution of responses from being created. Alternatively, the communities included in the NSCAW study may exhibit generally higher levels of community engagement due to a selection effect (e.g., engaged communities may have been more likely to respond to invitations to the study). More research on the direct, promotive effect of community engagement is needed to parse between true effects and methodological noise.

The protective effect of community engagement on the link between sexual abuse history and sexual revictimization corroborates previous investigations (Barron & Topping, 2009; Casey & Lindhorst, 2009; Finkelhor, 2009; Jennings et al., 2006). First, existing research suggested that community engagement negatively related to forms of violence towards young people (Miao, Umemoto, Gonda, & Hishinuma, 2011; Nation, Bess, Voight, Perkins, & Juarez, 2011), such as sexual abuse (Barron & Topping, 2009; Finkelhor, 2009) and sexual assault (Casey & Lindhorst, 2009; Jennings et al., 2006). For example, interruptions of sexual assault by bystanders are more likely to occur in engaged communities compared to disengaged communities (Banyard, 2008). Additionally, families that are engaged in therapeutic services that were organized by child protective services are less likely to evince future maltreatment reports (Fuller & Zhang, 2017). Engaged communities amongst the NSCAW sample may have maintained a non-adversarial relationship with child protective service agencies and, in turn, maximized the benefits of interventions arranged by caseworkers. Second, common practices in supportive communities such as informal childcare may also explain the current findings. The provision of informal childcare support is more common in more engaged communities (Griggs,

Casper, & Eby, 2013), and a lack of available, appropriate childcare is a documented risk factor for sexual violence against youth (Moulden, Firestone, & Wexler, 2007). Third, studies showed that sexual abuse survivors who can access a supportive community evince reductions in psychopathology resulting from the abuse (Greenfield & Marks, 2010; Hébert, Lavoie, & Blais, 2014). Accordingly, positive changes in mental health status may lead to reduced sexual revictimization risk as mental health problems are documented to mediate the link between child sexual abuse and sexual revictimization (Kearns & Calhoun, 2010; Marx et al., 2005; Miron & Orcutt, 2014). Future investigations can further inspect the mechanistic pathways through which community engagement reduces sexual revictimization risk.

The presently identified buffering effect of community engagement also supports the ecological-transactional model of child maltreatment (Cicchetti & Valentino, 2006). The community environment represents a distal context in which youths' developmental pathways are modified through interactions with the community. Community support adds to the collection of protective factors that – when outweighing the contribution of developmental risks (e.g., sexual abuse history) – culminate into adaptive outcomes (e.g., sexual revictimization avoidance). Despite the distal nature of protections from community engagement, sexually abused youth in these neighborhoods were able to surmount their risk for subsequent sexual violence and continue to develop uninhibited.

Aim 4: Gender Differences in Sexual Revictimization Risk

The fourth aim of the current study was to investigate how child gender is related to risk for sexual revictimization. Past studies consistently identified that sexually abused girls are at greater risk for sexual revictimization compared to girls with no sexual abuse history (Arata, 2002; Bramsen et al., 2013; Messman-Moore & Long, 2003). However, the relation between

gender and risk for sexual revictimization is unclear. Most studies exclude male samples, though emerging data suggested that sexual revictimization occurs among boys as well (Aosved et al., 2011). Based on the increased risk for sexual abuse among girls (Briere & Elliott, 2003; Finkelhor et al., 2014; Pereda et al., 2009), the hypothesis was that girls would be at greater risk for sexual revictimization compared to boys. The results showed a significant link between child sexual abuse history and sexual revictimization among girls only. However, the difference in effects between girls and boys was not statistically significant. Thus, the data did not support the hypothesis. Additionally, the findings showed that boys experienced a significant buffering effect from community engagement on the path from child sexual abuse history to sexual revictimization while girls did not, but the difference in gender effects was also not statistically significant.

More research on sexual revictimization among boys is needed. The topic of males experiencing sexual assault is only a recently identified public health issue (Weiss, 2010) and few studies on male sexual revictimization have been conducted. The absence of investigations may in part be due to social norms about male sexuality. It is commonly believed that men cannot be sexually victimized or that experiencing sexual violence does not negatively affect them (Coxell & King, 1996). Contrary to these popular beliefs, recent evidence shows that men indeed are sexually victimized (Weiss, 2010) and suffer increased psychopathology such as depressive symptoms as a result of sexual revictimization (Aosved et al., 2011). The current study found that girls and boys did not significantly differ in their sexual revictimization risk, though more research is needed to support this finding.

Aim 5: Differences in Sexual Revictimization Risk between Children and Adolescents

The fifth aim of the current study was to investigate how child age influences the risk for sexual revictimization. In the past, preadolescent youth were considered to be at the greatest risk for child sexual abuse compared to school-age children and adolescents (Finkelhor, 1993), though the role of child age in probability for sexual revictimization occurrence is not currently well understood. The current hypothesis was that children would be at greater risk for sexual revictimization than adolescents due to children's heightened risk for sexual abuse (Finkelhor, 1993). The findings suggested that sexually abused children were significantly at risk for sexual revictimization while adolescents were not. However, the difference was not statistically significant. Also, results suggested that children benefited from the buffering power of community engagement such that sexually abused children in engaged communities were at decreased risk for sexual revictimization compared to sexually abused children in disengaged communities. Adolescents did not evince any protective effect from community engagement on the link between sexual abuse history and sexual revictimization. The difference in effects between children and adolescents was statistically significant.

More research is needed to clarify the risk for sexual revictimization among children and adolescents. Adolescents are often at risk for sexual violence due to their engagement in risk behaviors (Arata, 2000; Fargo, 2009) while younger youth are vulnerable due to their reliance on adults for safety from victimization (Fleming et al., 1997) as well as their immature threat detection (Ruggiero et al., 2000) and avoidance abilities (Finkelhor, 1993). The current results suggested that community engagement was a significantly greater protective factor among children compared to adolescents. The benefits provided by an engaged community such as informal childcare (Griggs et al., 2013), emotional support (Greenfield & Marks, 2010; Hébert et

al., 2014), and bystanders who are willing to stop sexual crimes (Banyard, 2008) may prove to reduce the risk factors for sexually abused younger children while not providing a similar reduction of risk for sexually abused adolescents. More research is needed to understand the mechanisms underlying the protective effect of community engagement on risk for sexual revictimization among sexually abused children.

Implications

Policy. The current results have implications for policy work regarding sexually abused youth. First, the findings indicated that sexually abused youth are at greater risk for sexual revictimization compared to youth with other maltreatment types. Policymakers can be informed about sexually abused youths' increased risk for sexual revictimization and allocate additional resources to ensure that these youth have a reasonable opportunity to avoid additional sexual victimization. Second, the results indicated that community engagement buffered pathways to sexual revictimization. Existing local and federal preventative policies are overly focused on the victim and perpetrator, giving little attention to the community environments in which perpetration occurs (Finkelhor, 2009). Policies regarding the surveillance and targeting of sexual violence can take this finding into account and provide prevention programs with accurate information on rates of sexual revictimization among various communities (Freyd et al., 2005).

Prevention and intervention. The results of the current study have implications for interventionists seeking to reduce sexual revictimization risk among victims of child maltreatment. First, the current findings showed that sexually abused children and adolescents are at increased risk of being sexually revictimized compared to youth with other forms of maltreatment. Interventionists can be aware of the maltreatment histories of at-risk youth as distinctions in abuse and neglect experiences may alter downstream risks, making them

susceptible to sexual revictimization. Second, the current findings showed that community contexts are influential in paths to sexual revictimization. Current sexual assault prevention programs target women's refusal skills (Simpson Rowe, Jouriles, Mcdonald, Platt, & Gomez, 2012), unhealthy relationship dynamics, risky sexual behaviors (DePrince, Chu, Labus, Shirk, & Potter, 2015), alcohol use (Gilmore, Lewis, & George, 2015), and lack of sexual education (C. Y. Senn et al., 2013). The current findings provide complementary information to these programs by adding that the community context must also have a focus on the prevention of sexual revictimization. Interventions that target contextual risks and seek to promote community-level protective factors are necessary to individual well-being and sexual violence avoidance among youth. However, few investigations into environment-focused interventions have been conducted, likely due in part to the dearth of research on these contextual factors (Lalor & McElvaney, 2010).

Limitations and Strengths

Limitations. There are some limitations to the current findings. The limitations of the current study include the potential for bias in self-reporting of sexual revictimization data, the lack of generalizability of the current findings to populations not involved with child protective services, the absence of a non-maltreated group and inability to detect whether child maltreatment is a general risk factor for sexual revictimization, the lack of data on sexual revictimization outcomes in young adulthood, and the absence of self-reported sexual revictimization data. The implications of these limitations on the validity and implications of the current findings are detailed below.

Bias in sexual revictimization data. First, the current study utilizes data from caregivers who are under investigation for child maltreatment who may not have been transparent in

reporting sexual revictimization occurrences. Families involved with child protective services face scrutiny and stigmatization (Gilbert et al., 2009; Lietz & Strength, 2011), and parents might be hesitant to disclose additional negative events that could lead to further involvement with caseworkers. It is possible that these caregivers were biased in their responses (i.e., not reporting sexual revictimization events) because of the social pressures of being involved with child protective services. Other reporters (i.e., caseworkers) were utilized in the assessment of sexual revictimization to address this potential limitation. It is likely that this bias would make the current findings more difficult to detect yet analyses still identified significant effects.

Lack of generalizability. Second, the current study utilized a sample of children and families involved with child protective services, but less than 20% of all cases of abuse and neglect are reported to child protective services (Everson et al., 2008; MacMillan, Jamieson, & Walsh, 2003). The current analyses are generalizable to families who are involved with child protective services at the national-level but may not be fully applicable to maltreating families who do not become involved with child protective services. There are consistent differences between maltreating families involved with child protective services and maltreating families who are not involved with child protective services that may impact the transferability of these results. For example, families who are poor are more likely to be reported for and investigated because of child maltreatment claims compared to maltreating but non-poor families (Jonson-Reid, Drake, & Kohl, 2009). The current sample likely reflects this systematic economic distinction among other differences. Exercising caution when making inferences beyond this study's population is recommended. Nevertheless, it is essential to study families involved with child protective services as they are generally at higher risk than populations not involved with the child welfare system (Connell, Bergeron, Katz, Saunders, & Tebes, 2007).

Absence of non-maltreated comparison group. Third, the current study utilized a large sample of youth investigated for child maltreatment and compared child sexual abuse to other forms of maltreatment in regards to sexual revictimization risk. However and due to the nature of the dataset, the current study was unable to compare these effects against a non-maltreated sample. Thus, it is not possible to confirm if child maltreatment is a general risk factor for sexual revictimization, which previous research has suggested (Finkelhor et al., 2007b; Stermac et al., 2002). Future research can examine sexual revictimization risk among sexually abused youth, youth with other forms of maltreatment, and youth without child maltreatment histories.

Limited data on young adulthood. Fourth, the current study followed youth throughout late childhood and adolescence but lacked data on young adulthood. Previous research documented that sexual revictimization frequently occurs during young adulthood and adulthood (Walker et al., 2017; Walsh et al., 2014). Less research examined sexual revictimization in childhood or adolescence despite that many youth experience sexual revictimization before reaching young adulthood (Fargo, 2009). Thus, there is a specific need to study sexual revictimization before young adulthood, though it would have been best to be able to follow youth through young adulthood to see if sexual revictimization continued to occur across developmental stages.

No self-reported sexual violence data. Fifth, the current study utilized reports from caregivers and caseworkers to assess for sexual revictimization but did not obtain self-reported sexual revictimization data from youth. Previous research primarily utilized self-reports of sexual revictimization, and the current results are needed to corroborate past findings with self-report data. However, it would be preferential to also use youths' self-report of sexual revictimization in the analyses as many instances of sexual revictimization do not come to the

attention of parents or officials (Everson et al., 2008; Negriff et al., 2017). Unfortunately, these self-reported sexual revictimization data were not available in the dataset used for the current study. Future research can utilize a multi-reporter approach and include self-reported data to capture a broader assessment of sexual revictimization as well as investigate if and why reports from parents, caseworkers, and youth differ.

Strengths. The current results are bolstered by several methodological strengths. First, the current study utilized a large, nationally representative sample of youth and their families involved with child protective services. Due to the intentional oversampling of sexually abused youth, this investigation was able to analyze the risk of sexual revictimization among youth with sexual abuse histories compared to youth with histories of physical abuse, emotional abuse, and neglect. Second, the sexual revictimization data for this investigation were taken across three waves that spanned nearly nine years of youths' development. This extended period of data collection allowed for enough time to pass so that sexual revictimization events could occur in a great enough frequency to prove stable in statistical analyses. Third, the current study used data from multiple sources (e.g., child, caregiver, caseworker, census records), adding further trustworthiness to the results compared to studies with one data collection source.

Conclusion

The current study showed that sexually abused youth are at heightened risk for sexual revictimization compared to youth with other forms of maltreatment. The protective effects of community engagement buffered the link from sexual abuse history to sexual revictimization, particularly so for children. Future studies can examine the mechanisms that explain why sexually abused youth are at increased risk for sexual revictimization compared to youth with other forms of child maltreatment as well as why community engagement buffered the pathway

from child sexual abuse to sexual revictimization, particularly for children. Policymakers can target sexually abused youth as a group needing special resources and intervention efforts to reduce the burden of sexual revictimization on greater society. Preventative interventions can enlist engaged community members to prevent sexually abused youth from being sexually revictimized.

CHAPTER 4

INTEGRATIVE DISCUSSION AND CONCLUSION

Discussion

Review of Overarching Aims, Studies, and Findings

The current dissertation aimed to examine how family and community contextual factors influenced pathways from child maltreatment to sexual revictimization among youth. The first overarching aim was to examine the influence of child maltreatment on increased sexual revictimization likelihood via risk mechanisms as well as to study the buffering role of protective parenting in those paths. To test this aim, the first study used a small sample of community young adult women without college education. Findings indicated that depressive symptoms served as a mechanism in the path from child maltreatment severity to risk behaviors, indirectly linking child maltreatment severity to sexual revictimization via alcohol use frequency. Positive parenting directly reduced sexual revictimization risk and buffered paths from alcohol use frequency to sexual revictimization. Thus, the first hypothesis was supported. The second overarching aim was to test paths from child sexual abuse history to sexual revictimization in late childhood and adolescence with sexual abuse being compared to other forms of maltreatment as well as examine the modulating effects of community disadvantage and engagement on those associations. To test this aim, a second study was conducted with data from a large sample of maltreated youth involved with child protective services. The results suggested that sexual abuse history was a unique risk factor for sexual revictimization over and above the influences of other kinds of maltreatment such as physical and sexual abuse as well as neglect. The findings additionally showed that community engagement buffered paths from sexual abuse history to increased sexual revictimization probability such that sexually abused youth living in engaged and supportive communities were at reduced risk for sexual revictimization compared to sexually abused youth living in disengaged, unsupportive

communities. This protective effect was significantly stronger among children compared to adolescents. The second overarching hypothesis was partially supported as community disadvantage did not exert an amplifying effect on the link between sexual abuse history and sexual revictimization but community engagement did evince a buffering influence on that pathway.

Scientific Contributions of the Current Findings and Future Directions for Research

The indirect path from child maltreatment severity to sexual revictimization via depressive symptoms. The first study identified the role of depressive symptoms in paths from child maltreatment severity to increased sexual revictimization risk, which extends work on the affect-management and self-medication perspectives on risk-taking behaviors (Cooper et al., 2000; Khantzian, 1985). These frameworks purport that youth exposed to adversity often lack positive feelings and continuously have negative feelings. Youth find themselves unable to deal with these symptoms with their undeveloped coping skills (Thapar et al., 2012) so they seek out exterior sources of coping (e.g., risk-taking behaviors) that increase positive feelings and reduce negative affect (Hussong et al., 2001; Shrier et al., 2012, 2010; Simons et al., 2005). This project is one of the first to apply this hypothesis to the study of sexual revictimization. Future research can examine factors that buffer the development of depressive symptoms among maltreated youth to understand how to prevent the emergence of risk-taking behaviors that place youth at heightened probability for sexual revictimization. Some potential buffering mechanisms include supportive peers (Young, Berenson, Cohen, & Garcia, 2005), the development of healthy coping skills (Horwitz, Hill, & King, 2011), and early attainment of developmental milestones (e.g., employment) (Mossakowski, 2009).

Positive parenting as a protective factor. The first study revealed that positive parenting reduced sexual revictimization risk following youths' engagement in risky behaviors. This finding extends previous research on the ability of families to impact youths' downstream likelihood for experiencing violence such as sexual revictimization (Folger & Wright, 2013; Jankowski et al., 2002; Reid & Sullivan, 2009; Stermac et al., 2002). Future studies can examine the mechanisms that underlie the protective effects of positive parenting on paths from risk-taking behaviors to sexual revictimization. For example, it is possible that positive parenting may have increased girls' self-concept and sexual refusal strategies (Dittus, Miller, Kotchick, & Forehand, 2004; Santa Maria, Markham, Bluethmann, & Mullen, 2015) as well as heightened their attentiveness to risky scenarios (Testa, Hoffman, Livingston, & Turrisi, 2010). Alternatively, women who experienced more positive parenting in childhood may have entered into healthier romantic relationships (Kan, McHale, & Crouter, 2008) and peer networks (Cook, Buehler, & Fletcher, 2012) in which alcohol consumption is present but not a risk factor for being sexually revictimized. Identifying the reasons why positive parenting reduced the probability of sexual revictimization is critical for future preventive interventions seeking to decrease maltreated girls' risk for sexual violence.

The current findings some evidence that positive adult-child relationships have protective influences on youth adaptation, and future research can examine how other forms of positive adult support might have implications on sexual revictimization risk. For example, non-parental mentors have been previously examined as promotive factors among at-risk youth and have been found to reduce youths' engagement in substance use (Beier, Rosenfeld, Spitalny, Zansky, & Bontempo, 2000) and risky sex (Beier et al., 2000; Zimmerman, 2010) as well as their experience of psychopathology symptoms (Zimmerman, 2010). Further exploration of the role

of non-parental mentors is paramount, particularly for youth with child maltreatment histories as they are less likely to experience interpersonal support from their parents than youth without child maltreatment histories (C. Cyr, Euser, Bakermans-Kranenburg, & Van Ijzendoorn, 2010). In addition to the role of the non-parental mentor, researchers can examine how youths' engagement in broader social networks such as school settings and religious communities may also be a mechanism for behavioral change among youth with child maltreatment histories such that it reduces their sexual revictimization risk. Previous research has found that social obligations to such networks decreases rates of adolescents delinquency (Herrenkohl, Tajima, Whitney, & Huang, 2005), though much more work is needed to understand the role of these communities in youth adaptation and avoidance of sexual revictimization risk.

Sexual abuse history as a unique risk factor. The second study identified that sexual abuse, compared to other forms of maltreatment, was linked with increased risk for sexual revictimization. This finding extends research on sexual revictimization among youth with distinct abuse and neglect types. Previous research showed that maltreated youth are at greater risk for sexual revictimization compared to non-maltreated youth (Finkelhor et al., 2007b; Stermac et al., 2002) and that sexually abused youth are at risk for sexual revictimization compared to non-sexually abused youth (Messman-Moore & Brown, 2004). The current study found that sexually abused youth, compared to youth with other forms of maltreatment, were at increased likelihood for sexual revictimization. Future research can examine the mechanisms that underlie this increased risk among sexually abused youth compared to youth with other forms of maltreatment. Past theoretical and scientific work has suggested that learned helplessness (Hlavka, 2014; C. Peterson & Seligman, 1983; Renner & Slack, 2006), maladaptive sexual attitudes (Browne & Finkelhor, 1986; T. E. Senn, Carey, & Vanable, 2008), and

normalization of sexual violence (Dunlap et al., 2009; Messman & Long, 1996; Valdez et al., 2013) are possible explanations for this link, but more empirical examinations are needed to support these hypotheses.

Community engagement as a protective factor. The second study also extended research on the community factors that influence sexual revictimization by showing that community engagement buffered the link between sexual abuse history and sexual revictimization. Previous research identified that community factors influenced associated outcomes such as rates of child sexual abuse (Drake & Pandey, 1996; Turner et al., 2007, 2013) and sexual violence (Tewksbury & Mustaine, 2008; Turner et al., 2013). However, this is one of the first studies to document that the community context influenced sexual revictimization risk. Future studies on sexual revictimization can examine other aspects of youths' context such as peer networks. Delinquent peers have begun to be studied as a risk factor for sexual revictimization (Stogner, Miller, Fisher, Stewart, & Schreck, 2014). Accordingly, prosocial peers may have the potential to prevent vulnerable youth from encountering developmental risks such as early exposure to sexual activity or substance use (Van Hoorn, Crone, & Van Leijenhorst, 2017; Van Hoorn, Van Dijk, Meuwese, Rieffe, & Crone, 2016). Should future research show that healthy peer relationships are a reliable mechanism for reducing sexual revictimization risk, prevention efforts could focus on targeting peer networks to reduce sexual revictimization likelihood.

It is worth noting that community engagement was a more integral component of the youths' ecology vis-à-vis sexual revictimization risk compared to community disadvantage. Previous research has highlighted that neighborhood economic deprivation is more linked with instances of neglect and physical abuse than with occurrences of sexual abuse (Drake & Pandey,

1996; Jonson-Reid et al., 2013). It is possible that merely examining community economic disadvantage without noting the sense of engagement and support within a broad social network misses some crucial components to understanding the impact of youth ecology on developmental adaptation. Future research on the role of economic factors on sexual revictimization rates should take into account that sexual abuse is not as strongly tied to income as other forms of child maltreatment, and this may have important implications on prevention and intervention work.

An Empirical Basis for an Ecological-Transactional Model of Sexual Revictimization

Findings from both studies support the ecological-transactional framework (Cicchetti & Valentino, 2006), showing that maltreated youths' developmental adaptation (e.g., sexual revictimization risk) is dependent on the balance of risk and protective factors in varying levels of the youths' ecology (e.g., individual, family, community). Individual factors (e.g., severity of child maltreatment history, risk-taking behaviors) are often the most impactful on developmental outcomes (Cicchetti & Valentino, 2006), which is evidenced by the large body of research on the role of abuse and neglect (Krahe, 2000; Krahe & Berger, 2017; Nelson et al., 2002; Rich et al., 2005; Roodman & Clum, 2001; Siegel & Williams, 2003; Smith et al., 2003) as well as risk-taking behaviors in pathways to increased sexual revictimization probability (Abbey, 2002; Bramsen et al., 2013; Combs-Lane & Smith, 2002; Fargo, 2009; Franklin, 2010; Mohler-Kuo et al., 2004; Testa, Hoffman, & Livingston, 2010; Ullman & Vasquez, 2015).

Family facets compose the next level of the youth ecology, and potential benefits in the family system (e.g., positive parenting) bear positive influences on the viability of youths' healthy adaptation (e.g., avoiding sexual violence). According to the ecological-transactional model, these contributions to youth development can have short-term (i.e., *transient*) or long-

term (i.e., *enduring*) effects (Cicchetti & Valentino, 2006). The current findings suggest not only that positive parenting is a protective factor but also that it is an enduring protective factor. Though young adults' experiences of positive parenting occurred early in their development (i.e., during childhood while they lived with their parents), the protective capacity of positive parenting buffered the culmination of downstream young adult risk-taking behaviors into sexual revictimization risk. This finding is striking as young adult alcohol use frequency was more recent and proximal than past experiences of supportive caregiving.

Community factors, the next level in the youths' developmental context, also played a distinct role in the network of challenging and supporting influences on adaptation. Among supportive and engaged communities, sexually abused youth evinced reduced sexual revictimization likelihood. According to the ecological-transactional model (Cicchetti & Valentino, 2006), distal factors such as community supportiveness influence the balance of developmental risks and protections and alter youths' chances of positive adaptation. The social supports inherent to engaged communities rebalanced the risk of child sexual abuse history and promoted healthy adaptation (i.e., decreased sexual revictimization risk). Thus, the current investigation's findings supported an ecological-transactional view of sexual revictimization probability development.

The current findings provide an impetus for using the ecological-transactional model (Cicchetti & Valentino, 2006) in further study of other socio-contextual factors that may influence sexual revictimization risk. Socio-cultural factors among families and communities were not the focus of nor examined in the current study but may have an impact on sexual revictimization rates. For example, immigrant parents are largely unaware of and hesitant to access the legal system in the United States (Erez & Hartley, 2003), which may mean their youth

are at heightened risk for sexual abuse due to lack of legal involvement. Furthermore and after sexual victimization has occurred, parents with a vulnerable social and legal status (e.g., lack of immigration documentation) may choose to not involve legal authorities in investigating sexual crimes, which can further put children at risk (Fontes, 2002). Future research can use an ecological-transactional perspective to explore how emerging socio-cultural factors impact sexual revictimization rates.

Policy and Intervention Implications of the Current Findings

Target mental health issues. The first study demonstrated that maltreated youth need mental health services to treat depressive symptomology in order to prevent downstream developmental maladaptations such as engaging in risk-taking behaviors that increase sexual revictimization likelihood. Clinicians can utilize this information by teaching abused and neglected youth how to better use coping skills to manage the psychopathological sequelae of abuse and neglect (i.e., depressive affect). Policymakers can seek to raise awareness for the importance of such treatments as well as allocate funding for programs that target affective mechanisms in pathways to sexual revictimization. Furthermore, political advocates can destigmatize maltreated youth who become sexually revictimized due to engagement in risk behaviors by pointing at the mental health problems that drive their engagement in risky sex and alcohol use.

Utilize and maximize the protective capacities of maltreating families. The current findings corroborate recent research suggesting that maltreating families can use existing strengths to help their youth develop appropriately despite family members' abusive and neglectful parenting practices (Haskett, Nears, Sabourin Ward, & McPherson, 2006). Additionally, families that have maltreated their children can change and learn more positive

parenting skills (Howell, Graham-Bermann, Czyz, & Lilly, 2010) and use warm parent-child relations (Graham-Bermann, Gruber, Howell, & Girz, 2009; Spaccarelli & Kim, 1995) to help their children achieve resilient outcomes. The potential for maltreating families to have protective capacities for their youth is further emphasized by successful reunifications of maltreated youth and their families. By being committed to the family system, removing themselves from unhealthy contexts, and utilizing appropriate social supports, families are able to return to healthy patterns of interactions and cease maltreating behaviors (Lietz & Strength, 2011).

Interventionists can facilitate families' efforts to provide their youth with protective relational influences despite previous maltreating parenting behaviors. By using resilience-based models that focus on families' existing protective factors, clinicians can help families avoid committing child maltreatment again (Thomas, Chenot, & Reifel, 2005) (Flaherty & Stirling, 2010). Additionally, clinicians increase the positive effect of families' strengths with family-based interventions (e.g., family therapy) that have been identified as powerful tools for preventing the development of youth problem behaviors (Danielson et al., 2010; Kumpfer & Alvarado, 2003). Interventionists targeting sexual revictimization risk can encourage families to provide important relational resources (i.e., positive parenting) to their youth in hopes that it will decrease their developmental risk for sexual revictimization. Clinicians can sensitively talk about the risks of developmental maladaptations such as sexual revictimization to engage otherwise disinterested parents in establishing positive caregiving practices in their family.

Lawmakers can also help to maximize the impact of maltreating families' strengths by supporting the creation of policies that allow families to have contact with their children while under investigation by child protective services. Many families who engage in abusive or

neglectful parenting practices experience the removal of their child, which can prevent youth from gaining valuable and helpful relational experiences with their parents. Policies that provide intervention services to maltreating families to bolster their caregiving strengths can help parents avoid committing future instances of maltreatment. Additionally, laws allowing for healthy, structured parent-child contact while an investigation by child protective services is underway can buffer the impact of risk-taking behaviors on sexual revictimization risk development among these youth. It is important to note that many parents who are investigated by child protective services have many positive parenting qualities. Several scholars have noted that decision-making processes among child welfare workers are sometimes wanting due to the excessive stress experienced by many case workers (Munro, 2010; Rzepnicki & Johnson, 2005). Researchers can examine how contextual factors such as job stress influences social workers capacities to recognize and utilizes families' strengths, and interventionists can work alongside child welfare workers to ensure that families are given every chance to succeed in creating familial environments that are safe for youth.

Use tailored primary preventive interventions for sexually abused youth. The findings of the second study suggested that sexually abused youth need targeted primary prevention programming to buffer the particular risks associated with experiencing sexual violence during childhood. Many maltreated children receive similar treatment modalities following abuse and neglect occurrences, which are not aimed at reducing sexual revictimization risk (Skowron & Reinemann, 2005) and are unlikely to prevent sexual revictimization (Massetti et al., 2011). Sexually abused youth need primary sexual revictimization prevention approaches that are person-centered (Moore & Moore, 2011; Norcross & Wampold, 2011) and focused on the unique struggles that accompany sexual abuse experiences such as distorted views and

behaviors regarding sexuality (Finkelhor, 1987), helplessness towards sexual violence (C. Peterson & Seligman, 1983), and normalization of sexual offences (Messman & Long, 1996). Lawmakers can fund the development and implementation of these specialized treatments to disrupt the link between child sexual abuse and sexual revictimization.

In addition to primary prevention, specialized secondary prevention programs are also needed to attend to the immediate needs of sexual revictimization survivors as well as programs that target intergenerational transmission of child sexual abuse. Sexually revictimized youth struggle with severely heightened psychopathology (Casey & Nurius, 2005; Kimerling et al., 2007), though few targeted secondary prevention interventions have been created for this at-risk population (Foshee et al., 2004). Sexual revictimization survivors can additionally benefit from tertiary programs such as specialized support groups. Research shows that protective factors such as social support buffer the impact of sexual violence on downstream mental health outcomes (Coker et al., 2002). In addition to meeting the unique needs of sexual revictimization survivors, interventionists need to be aware of intergenerational child sexual abuse trends and attend to them. Previous research has shown that parents who were sexually abused as children are more likely to see their own children become sexually abused due to maladaptive parenting and monitoring strategies (DiLillo & Damashek, 2003; Leifer, Kilbane, & Kalick, 2004). Future research can examine protective factors that can be used to stop the intergenerational cycle of sexual victimization, and interventionists can use these findings to leverage their work with at-risk families. **Engage the community.** The community context is a needed component in programmatic sexual revictimization risk reduction. It is not without reason that one of the main suggestions for new prevention programs is to engage the local community members in the development and execution of interventions (Casey & Lindhorst, 2009; Miao et al., 2011).

Establishing ties within the community involves their participation in the creation and implementation of programs (Brenner & Manice, 2011). The historical disconnect between communities and scholarly institutions must be bridged for the well-being of community members (O'Mara-Eves et al., 2013). Steps to do this include identifying communities that are viable for this kind of intervention, finding the stakeholders who best represent that community, and beginning the trust-building process (Sapienza, Corbie-Smith, Keim, & Fleischman, 2007). Preventionists seeking to maximize the impact of their sexual revictimization risk reduction programs ought to collaborate with the communities in which they will intervene and can plan for a lengthy process of allowing trust to form. Among communities that are ready for community-based interventions, clinicians can hold workshops on ways to reduce sexual violence, such as bystander interventions (Banyard et al., 2004). Policymakers are also key players in the development and implementation of these kinds of programs, particularly for community-based interventions that require high-profile stakeholders to help unify the community on a specific initiative. Programs that promote community engagement and support are likely to have preventative effects for youth with sexual abuse histories.

In addition to understanding that community engagement can reduce sexual revictimization rates, practitioners and policymakers can recognized that community settings can also be a source of sexual perpetration. Recent surveillance work has brought attention to institutional sexual abuse cases that, although rare, often have numerous victims (Gallagher, 2000; McAlinden, 2006). Many such institutions have prevented these crimes from coming to the attention of authorities in the past to the detriment of the victims and their families (White & Terry, 2008). Though familial protective factors may buffer negative sequela from sexual abuse, these protective effects may not take full effect if youth are convinced by perpetrators not to tell

adults what they have experienced. Though sexual abuse has been more publically addressed in recent years, many of the perpetrators of institutional sexual abuse have been out of reach of the legal system due to statues of limitations and/or death via old age. Interventionists can note that, while gaining voice for victims can be a powerful tool for coping with the effects of sexual abuse, many victims will not see legal justice carried out against their perpetrators, which may have psychological implications that can be targeted via thoughtful interventions.

Target more than women's risk-taking behaviors. Many interventions targeting sexual victimization and revictimization risk primarily seek to alter potential victims' patterns engagement in risk-taking behaviors, mainly alcohol use among women (C. Y. Senn et al., 2013). This predominate focus on substance use is not without purpose. Web-based (Gilmore et al., 2015) and in-person sexual victimization prevention trainings (Marx, Calhoun, Wilson, & Meyerson, 2001) that targeted young women's alcohol use evinced lower sexual victimization rates in their treatment groups compared to controls in the months following the interventions. These beneficial effects were even stronger among women who were previously victims of sexual violence (Gilmore et al., 2015; Marx et al., 2001). Clearly, the data show that risk-taking behaviors such as alcohol use need to be targeted to reduce sexual revictimization risk.

In addition to risk-taking behaviors, there are other factors that interventionists could target to reduce sexual revictimization risk among potential victims. One study demonstrated this by examining two distinct approaches to sexual revictimization likelihood reduction. One intervention group received information on the negative impact of sexism and egalitarian beliefs about relationships while the second intervention group focused on executive function abilities related to detecting and responding to risky situations. Both intervention groups saw reductions in sexual revictimization rates compared to the control group, and the two intervention groups

did not significantly differ in sexual revictimization reduction rates (DePrince et al., 2015). Other sexual assault prevention programs have targeted factors such as assessment of risky scenarios, refusal strategies, self-defense abilities, and healthy attitudes towards sexuality (C. Y. Senn et al., 2013), evincing significant reductions in sexual victimizations among the intervention group compared to controls at one-year (C. Y. Senn et al., 2015) and two-year (C. Y. Senn et al., 2017) follow-ups. These findings suggest that programmatic approaches to sexual revictimization prevention can target more than alcohol consumption among potential victims.

The predominant focus on adjusting women's risky behaviors to reduce sexual revictimization risk, though arguably effective in the short-term, is also questionable. This interventive emphasis can be seen as based in victim-blaming rationale, and solely targeting potential victims' behavioral vulnerabilities is unlikely to change sexual violence rates in the long-term (Yeater & O'Donohue, 1999). A sociopolitical inclination for privileging men over women fosters an environment for condoning sexual revictimization perpetration and places the burden of avoiding sexual violence on potential victims, most of whom are women (Hlavka, 2014). Men's victimizing behaviors, as well as the developmental and cultural antecedents of these behaviors (e.g., witnessing violence as a child, conflating violence with masculinity), need to have a focus in sexual violence prevention (Gidycz, Orchowski, & Berkowitz, 2011; E. Miller et al., 2012). Unfortunately, there are few universal and evidence-based prevention programs for sexual violence perpetration at this time (Pina, Gannon, & Saunders, 2009). Interventions for convicted perpetrators of sexual violence have also been created, though there is concern that these programs serve more as venues for perpetrators to publicly acknowledge their guilt rather than as treatments with discernable effects on the likelihood of future perpetration among convicted perpetrators (Pina et al., 2009). To achieve a society where girls are less likely to

grow up to become sexually victimized women, establishing a society where boys are less likely to grow up to become sexually perpetrating men is critical. Interventionists can note that activities outside of the therapy room (e.g., awareness-raising, advocacy, outreach) are required components to lasting social change (Vera & Speight, 2003), and they can consider collaborating with policymakers to attend to the sociopolitical forces that subtlety permit sexual violence to perpetuate (Jordan & Seponski, 2018). Future research can utilize an ecological-transactional lens to understand how sociopolitical factors influence paths to sexual revictimization and bolster the political efforts of advocacy-oriented clinicians and policymakers.

Conclusion

Sexual revictimization is a major public health problem. The findings of the current pair of studies suggest that the cycle of violence beginning at child maltreatment history and ending at sexual revictimization is not only affected by individual-level risk factors but that family and community contexts also influence this pathway. Protective environmental factors such as positive parenting and community engagement reduce sexual revictimization risk. Further examination of the context is needed to understand how to prevent sexual revictimization. Interventionists and policymakers can work together to help maltreating families make the most of and improve their existing protective parenting practices as well as form ties with supportive communities. After accounting for the benefits provided by supportive caregiving and engaged communities, change regarding sociopolitical attitudes about sexual violence towards women will likely be required to further surmount the public health issue of sexual revictimization.

References

Abbey, A. (2002). Alcohol-related sexual assault: A common problem among college students. *Journal of Studies on Alcohol, Supplement No. 14*, 118–128. https://doi.org/10.15288/jsas.2002.s14.118

Aosved, A. C., Long, P. J., & Voller, E. K. (2011). Sexual revictimization and adjustment in college men. *Psychology of Men & Masculinity*, *12*(3), 285–296. https://doi.org/10.1037/a0020828

Arata, C. M. (2000). From child victim to adult victim: A model for predicting sexual revictimization. *Child Maltreatment*, *5*(1), 28–38. https://doi.org/0803973233

Arata, C. M. (2002). Child sexual abuse and adult sexual revictimization. *Clinical Psychology: Science and Practice*, *9*(2), 135–164. https://doi.org/10.1093/clipsy.9.2.135

Arata, C. M., Langhinrichsen-Rohling, J., Bowers, D., & O'Farrill-Swails, L. (2005). Single versus multi-type maltreatment: An examination of the long-term effects of child abuse. *Journal of Aggression, Maltreatment & Trauma*, *11*(4), 29–51.

Arata, C. M., & Lindman, L. (2002). Marriage, child abuse, and sexual revictimization. *Journal of Interpersonal Violence*, *9*(9), 953–971.

Asparouhov, T., & Muthén, B. (2006). Robust chi square difference testing with mean and variance adjusted test statistics. In *Mplus Web Notes No. 10*. Retrieved from http://www.statmodel.com/download/webnotes/webnote10.pdf

Babor, T. F., Higgins-Biddle, J. C., Saunders, J. B., & Monteiro, M. G. (2001). The Alcohol Use Disorders Identification Test, guidelines for use in primary care. *World Health*

Organization. Geneva, Switzerland. https://doi.org/10.1177/0269881110393051

Balsam, K. F., Lehavot, K., & Beadnell, B. (2011). Sexual revictimization and mental health: A comparison of lesbians, gay men, and heterosexual women. *Journal of Interpersonal Violence*, *26*(9), 1798–1814. https://doi.org/10.1177/0886260510372946

Banyard, V. L. (2008). Measurement and correlates of prosocial bystander behavior: The case of interpersonal violence. *Violence and Victims*, *23*(1), 83–97. https://doi.org/10.1891/0886-6708.23.1.83

Banyard, V. L., & Cross, C. (2008). Consequences of teen dating violence: Understanding intervening variables in ecological context. *Violence Against Women*, *14*, 998–1013. https://doi.org/10.1177/1077801208322058

Banyard, V. L., Plante, E. G., & Moynihan, M. M. (2004). Bystander education: Bringing a broader community perspective to sexual violence prevention. *Journal of Community Psychology*, *32*(1), 61–79. https://doi.org/10.1002/jcop.10078

Barron, I. G., & Topping, K. J. (2009). School-based child sexual abuse prevention programmes: The evidence on effectiveness. *Journal of Children's Services*, *3*(3), 32–53.

Beier, S. R., Rosenfeld, W. D., Spitalny, K. C., Zansky, S. M., & Bontempo, A. N. (2000). The potential role of an adult mentor in influencing high-risk behaviors in adolescents. *Archives of Pediatrics and Adolescent Medicine*, *154*(4), 327–331. https://doi.org/10.1001/archpedi.154.4.327

Belsky, J. (1993). Etiology of child maltreatment: A developmental-ecological analysis. *Psychological Bulletin*, *114*(3), 413–434. https://doi.org/10.1037/0033-2909.114.3.413

Bentler, P. (1990). Comparative fit indices in structural models. *Psychological Bulletin*, *107*(2), 238–246.

Bernstein, D. P., Ahluvalia, T., Pogge, D., & Handelsman, L. (1997). Validity of the Childhood Trauma Questionnaire in an adolescent psychiatric population. *Journal of the American Academy of Child & Adolescent Psychiatry*, *36*(3), 340–348. https://doi.org/10.1097/00004583-199703000-00012

Bernstein, D. P., & Fink, L. (1998). *Childhood Trauma Questionnaire Manual*. *The Psychological Corporation*. San Antonio, TX.

Bernstein, D. P., Stein, J. A., Newcomb, M. D., Walker, E., Pogge, D., Ahluvalia, T., … Zule, W. (2003). Development and validation of a brief screening version of the Childhood Trauma Questionnaire. *Child Abuse and Neglect*, *27*(2), 169–190. https://doi.org/10.1016/S0145-2134(02)00541-0

Bland, J. M., & Altman, D. G. (1996a). Statistics Notes: Logarithms. *British Medical Journal*, *312*(7032), 700. https://doi.org/10.1136/bmj.312.7032.700

Bland, J. M., & Altman, D. G. (1996b). Statistics Notes: Transforming data. *British Medical Journal*, *312*(7033), 770.

Bramsen, R. H., Lasgaard, M., Koss, M. P., Shevlin, M., Elklit, A., & Banner, J. (2013). Testing a multiple mediator model of the effect of childhood sexual abuse on adolescent sexual victimization. *American Journal of Orthopsychiatry*, *83*(1), 47–54. https://doi.org/10.1111/ajop.12011

Brenner, B. L., & Manice, M. P. (2011). Community engagement in children's environmental health research. *Mount Sinai Journal of Medicine*, *78*(1), 85–97. https://doi.org/10.1002/msj.20231

Briere, J., & Elliott, D. M. (2003). Prevalence and psychological sequelae of self-reported childhood physical and sexual abuse in a general population sample of men and women.

Child Abuse and Neglect, *27*(10), 1205–1222. https://doi.org/10.1016/j.chiabu.2003.09.008

Bronte-Tinkew, J., Moore, K. A., & Carrano, J. (2006). The father-child relationship, parenting styles, and adolescent risk behaviors in intact families. *Journal of Family Issues*, *27*(6), 850–881. https://doi.org/10.1177/0192513X05285296

Brown, T. A. (2014). *Confirmatory Factor Analysis for Applied Research* (Second). New York, NY, NY: Guilford.

Browne, A., & Finkelhor, D. (1986). Impact of child sexual abuse: A review of the research. *Psychological Bulletin*, *99*(1), 66–77. https://doi.org/10.1037/0033-2909.99.1.66

Burchinal, M., Nelson, L., Carlson, M., & Brooks-Gunn, J. (2008). Neighborhood characteristics and child care type and quality. *Early Education and Development*, *19*(5), 702–725. https://doi.org/10.1080/10409280802375273

Campbell, R., Dworkin, E., & Cabral, G. (2009). An ecological model of the impact of sexual assault on women's mental health. *Trauma, Violence, & Abuse*, *10*(3), 225–246. https://doi.org/10.1177/1524838009334456

Campbell, R., Greeson, M. R., Bybee, D., & Raja, S. (2008). The co-occurrence of childhood sexual abuse, adult sexual assault, intimate partner violence, and sexual harassment: A mediational model of posttraumatic stress disorder and physical health outcomes. *Journal of Consulting and Clinical Psychology*, *76*(2), 194–207. https://doi.org/10.1037/0022-006X.76.2.194

Cangur, S., & Ercan, I. (2015). Comparison of model fit indices used in structural equation modeling under multivariate normality. *Journal of Modern Applied Statistical Methods*, *14*(1), 152–167. https://doi.org/10.22237/jmasm/1430453580

Casey, E. A., & Lindhorst, T. P. (2009). Toward a multi-level, ecological approach to the

primary prevention of sexual assault. *Trauma, Violence, & Abuse*, *10*(2), 91–114. https://doi.org/10.1177/1524838009334129

Casey, E. A., & Nurius, P. S. (2005). Trauma exposure and sexual revictimization risk: Comparisons across single, multiple incident, and multiple perpetrator victimizations. *Violence Against Women*, *11*(4), 505–530. https://doi.org/10.1177/1077801204274339

Chen, F. F. (2007). Sensitivity of goodness of fit indexes to lack of measurement invariance. *Structural Equation Modeling*, *14*(3), 464–504. https://doi.org/10.1080/10705510701301834

Christine, D. S., Stein, B., Asmundson, G. J. G., Mccrearyp, D. R., & Forde, D. R. (2001). The Childhood Trauma Questionnaire in a community sample: Psychometric properties and normative data. *Journal of Traumatic Stress*, *14*(4), 843–857.

Cicchetti, D., & Valentino, K. (2006). An ecological-transactional perspective on child maltreatment: Failure of the average expectable environment and its influence on child development. In D. Cicchetti & D. J. Cohen (Eds.), *Developmental psychopathology: Risk, disorder, and adaptation* (Second, Vol. 3, pp. 129–201). New York, NY: Wiley.

Classen, C. C., Palesh, O. G., & Aggarwal, R. (2005). Sexual revictimization: A review of the empirical literature. *Trauma, Violence, & Abuse*, *6*(2), 103–129. https://doi.org/10.1177/1524838005275087

Cleveland, M. J., Gibbons, F. X., Gerrard, M., Pomery, E. A., Brody, G. H., Cleveland, M. J., … Brody, G. H. (2005). The impact of parenting on risk cognitions and risk behavior: A study of mediation and moderation in a panel of African American adolescents. *Child Development*, *76*(4), 900–916. https://doi.org/10.1111/j.1467-8624.2005.00885.x

Coker, A. L., Smith, P. H., Thompson, M. P., McKeown, R. E., Bethea, L., & Davis, K. E.

(2002). Social support protects against the negative effects of partner violence on mental health. *Journal of Women's Health & Gender-Based Medicine*, *11*(5), 465–476. https://doi.org/10.1089/15246090260137644

Combs-Lane, A. M., & Smith, D. W. (2002). Risk of sexual victimization in college women: The role of behavioral intentions and risk-taking behaviors. *Journal of Interpersonal Violence*, *17*(2), 165–183. https://doi.org/10.1177/0886260502017002004

Connell, C. M., Bergeron, N., Katz, K. H., Saunders, L., & Tebes, J. K. (2007). Re-referral to child protective services: The influence of child, family, and case characteristics on risk status. *Child Abuse and Neglect*, *31*(5), 573–588. https://doi.org/10.1016/j.chiabu.2006.12.004

Cook, E. C., Buehler, C., & Fletcher, A. C. (2012). A process model of parenting and adolescents' friendship competence. *Social Development*, *21*(3), 461–481. https://doi.org/10.1111/j.1467-9507.2011.00642.x

Cooper, M. L., Agocha, V. B., & Sheldon, M. S. (2000). A motivational perspective on risky behaviors: The role of personality and affect regulatory processes. *Journal of Personality*, *68*(6), 1059–1088. https://doi.org/10.1111/1467-6494.00126

Cooper, M. L., Frone, M. R., Russell, M., & Mudar, P. (1995). Drinking to regulate positive and negative emotions: A motivational model of alcohol use. *Journal of Personality and Social Psychology*, *69*(5), 990–1005. https://doi.org/10.1037/0022-3514.69.5.990

Cooper, M. L., Shapiro, C. M., & Powers, A. M. (1998). Motivations for sex and risky sexual behavior among adolescents and young adults: A functional perspective. *Journal of Personality and Social Psychology*, *75*(6), 1528–1558. https://doi.org/10.1037//0022-3514.75.6.1528

Corbin, W. R., Bernat, J. A., Calhoun, K. S., McNair, L. D., & Seals, K. L. (2001). The role of alcohol expectancies and alcohol consumption among sexually victimized and nonvictimized college women. *Journal of Interpersonal Violence*, *16*(4), 297–311. https://doi.org/10.1177/088626001016004002

Coulton, C. J., Korbin, J. E., & Su, M. (1999). Neighborhoods and child maltreatment: A multi-level study. *Child Abuse and Neglect*, *23*(11), 1019–1040. https://doi.org/10.1016/S0145-2134(99)00076-9

Coxell, A. W., & King, M. B. (1996). Male victims of rape and sexual abuse. *Sexual and Marital Therapy*, *11*(3), 297–308. https://doi.org/10.1080/14681994.2010.518725

Cuevas, C. A., Finkelhor, D., Clifford, C., Ormrod, R. K., & Turner, H. A. (2010). Psychological distress as a risk factor for re-victimization in children. *Child Abuse and Neglect*, *34*(4), 235–243. https://doi.org/10.1016/j.chiabu.2009.07.004

Cutajar, M. C., Mullen, P. E., Ogloff, J. R. P., Thomas, S. D., Wells, D. L., & Spataro, J. (2010). Psychopathology in a large cohort of sexually abused children followed up to 43 years. *Child Abuse and Neglect*, *34*(11), 813–822. https://doi.org/10.1016/j.chiabu.2010.04.004

Cyr, C., Euser, E. M., Bakermans-Kranenburg, M. J., & Van Ijzendoorn, M. H. (2010). Attachment security and disorganization in maltreating and high-risk families: A series of meta-analyses. *Development and Psychopathology*, *22*(1), 87–108. https://doi.org/10.1017/S0954579409990289

Cyr, M., Wright, J., McDuff, P., & Perron, A. (2002). Intrafamilial sexual abuse: Brother-sister incest does not differ from father-daughter and stepfather-stepdaughter incest. *Child Abuse and Neglect*, *26*(9), 957–973. https://doi.org/10.1016/S0145-2134(02)00365-4

Dadds, M. R., Maujean, A., & Fraser, J. A. (2003). Parenting and conduct problems in children:

Australian data and psychometric properties of the Alabama Parenting Questionnaire. *Australian Psychologist*, *38*(3), 238–241. https://doi.org/10.1080/00050060310001707267

Danielson, C. K., McCart, M. R., de Arellano, M. A., Macdonald, A., Doherty, L. S., & Resnick, H. S. (2010). Risk reduction for substance use and trauma-related psychopathology in adolescent sexual assault victims: Findings from an open trial. *Child Maltreatment*, *15*(3), 261–268. https://doi.org/10.1177/1077559510367939

Das, A., & Otis, N. (2016). Sexual contact in childhood, revictimization, and lifetime sexual and psychological outcomes. *Archives of Sexual Behavior*, *45*(5), 1117–1131. https://doi.org/10.1007/s10508-015-0620-3

Dawson, L. H., Shih, M.-C., de Moor, C., & Shrier, L. (2008). Reasons why adolescents and young adults have sex: Associations with psychological characteristics and sexual behavior. *Journal of Sex Research*, *45*(3), 225–232. https://doi.org/10.1080/00224490801987457

DeLisi, M., Kosloski, A., Sween, M., Hachmeister, E., Moore, M., & Drury, A. (2010). Murder by numbers: Monetary costs imposed by a sample of homicide offenders. *Journal of Forensic Psychiatry & Psychology*, *21*(4), 501–513. https://doi.org/10.1080/14789940903564388

DePrince, A. P., Chu, A. T., Labus, J., Shirk, S. R., & Potter, C. (2015). Testing two approaches to revictimization prevention among adolescent girls in the child welfare system. *The Journal of Adolescent Health*, *56*(2), S33–S39. https://doi.org/10.1016/j.jadohealth.2014.06.022

Dietrich, A. (2007). Childhood maltreatment and revictimization: The role of affect dysregulation, interpersonal relatedness difficulties and posttraumatic stress disorder. *Journal of Trauma & Dissociation*, *8*(4), 25–51.

DiLillo, D., & Damashek, A. (2003). Parenting characteristics of women reporting a history of childhood sexual abuse. *Child Maltreatment*, *8*(4), 319–333. https://doi.org/10.1177/1077559503257104

Dittus, P., Miller, K. S., Kotchick, B. A., & Forehand, R. (2004). Why Parents Matter!: The conceptual basis for a community-based HIV prevention program for the parents of African American youth. *Journal of Child and Family Studies*, *13*(1), 5–20. https://doi.org/10.1023/B:JCFS.0000010487.46007.08

Donohew, L., Zimmerman, R., Cupp, P. S., Novak, S., Colon, S., & Abell, R. (2000). Sensation seeking, impulsive decision-making, and risky sex: Implications for risk-taking and design of interventions. *Personality and Individual Differences*, *28*(6), 1079–1091. https://doi.org/10.1016/S0191-8869(99)00158-0

Dowd, K., Kinsey, S., Wheeless, S., Thissen, R., Richardson, J., Suresh, R., … Smith, K. (2007). *The National Survey of Child and Adolescent Well-Being (NSCAW): Data file user's manual restricted release version*. Ithaca, NY: National Data Archive on Child Abuse and Neglect, Cornell University; 2012.

Drake, B., & Pandey, S. (1996). Understanding the relationship between neighborhood poverty and specific types of child maltreatment. *Child Abuse and Neglect*, *20*(11), 1003–1018. https://doi.org/10.1016/0145-2134(96)00091-9

Dubowitz, H., Papas, M. A., Black, M. M., & Starr, R. H. (2002). Child neglect: Outcomes in high-risk urban preschoolers. *Pediatrics*, *109*(6), 1100–1107.

Duncan, A. E., Sartor, C. E., Scherrer, J. F., Grant, J. D., Heath, A. C., Nelson, E. C., … Bucholz, K. K. (2008). The association between cannabis abuse and dependence and childhood physical and sexual abuse: Evidence from an offspring of twins design.

Addiction, *103*(6), 990–997. https://doi.org/10.1111/j.1360-0443.2008.02210.x

Dunlap, E., Golub, A., Johnson, B. D., & Benoit, E. (2009). Normalization of violence: Experiences of childhood abuse by inner-city crack users. *Journal of Ethnicity in Substance Abuse*, *8*(1), 15–34. https://doi.org/10.1080/15332640802683359

Duprey, E. B., Oshri, A., & Caughy, M. O. (2017). Childhood neglect, internalizing symptoms and adolescent substance use: Does the neighborhood context matter? *Journal of Youth and Adolescence*, *46*(7), 1582–1597. https://doi.org/10.1007/s10964-017-0672-x

East, P. L., Chien, N. C., Adams, J. A., Hokoda, A., & Maier, A. (2010). Links between sisters' sexual and dating victimization: The roles of neighborhood crime and parental controls. *Journal of Family Psychology*, *24*(6), 698–708. https://doi.org/10.1037/a0021751

Edwards, V. J., Anda, R. F., Nordenberg, D. F., Felitti, V. J., Williamson, D. F., & Wright, J. A. (2001). Bias assessment for child abuse survey: Factors affecting probability of response to a survey about childhood abuse. *Child Abuse and Neglect*, *25*(2), 307–312. https://doi.org/10.1016/S0145-2134(00)00238-6

Elgar, F. J., Waschbusch, D. A., Dadds, M. R., & Sigvaldason, N. (2007). Development and validation of a short form of the Alabama Parenting Questionnaire. *Journal of Child and Family Studies*, *16*(2), 243–259. https://doi.org/10.1007/s10826-006-9082-5

Enders, C. K., & Bandalos, D. L. (2001). The relative performance of full information maximum likelihood estimation for missing data in structural equation models. *Structural Equation Modeling: A Multidisciplinary Journal*, *8*(3), 430–457. https://doi.org/10.1207/S15328007SEM0803_5

English, D. J., & LONGSCAN Investigators. (1997). *Modified Maltreatment Classification System (MMCS)*. Available at http://www.iprc.unc.edu/longscan/.

Erez, E., & Hartley, C. C. (2003). Battered immigrant women and the legal system: A therapeutic jurisprudence perspective. *Western Criminology Review*, *4*(2), 155–169. https://doi.org/10.1099/vir.0.18709-0

Essau, C. A., Sasagawa, S., & Frick, P. J. (2006). Psychometric properties of the Alabama parenting questionnaire. *Journal of Child and Family Studies*, *15*(5), 595–614. https://doi.org/10.1007/s10826-006-9036-y

Ethier, K. A., Kershaw, T. S., Lewis, J. B., Milan, S., Niccolai, L. M., & Ickovics, J. R. (2006). Self-esteem, emotional distress and sexual behavior among adolescent females: Inter-relationships and temporal effects. *Journal of Adolescent Health*, *38*(3), 268–274. https://doi.org/10.1016/j.jadohealth.2004.12.010

Everson, M. D., Smith, J. B., Hussey, J. M., English, D., Litrownik, A. J., Dubowitz, H., … Runyan, D. K. (2008). Concordance between adolescent reports of childhood abuse and child protective service determinations in an at-risk sample of young adolescents. *Child Maltreatment*, *13*(1), 14–26. https://doi.org/10.1177/1077559507307837

Fagan, A. A., Van Horn, M. L., David Hawkins, J., & Jaki, T. (2013). Differential effects of parental controls on adolescent substance use: For whom is the family most important? *Journal of Quantitative Criminology*, *29*(3), 347–368. https://doi.org/10.1007/s10940-012-9183-9

Fargo, J. D. (2009). Pathways to adult sexual revictimization: Direct and indirect behavioral risk factors across the lifespan. *Journal of Interpersonal Violence*, *24*(11), 1771–1791. https://doi.org/10.1177/0886260508325489

Fergusson, D. M., Boden, J. M., & Horwood, L. J. (2008). Exposure to childhood sexual and physical abuse and adjustment in early adulthood. *Child Abuse and Neglect*, *32*(6), 607–

619. https://doi.org/10.1016/j.chiabu.2006.12.018

Fergusson, D. M., Horwood, L. J., & Lynskey, M. T. (1997). Childhood sexual abuse, adolescent sexual behaviors and sexual revictimization. *Child Abuse and Neglect*, *21*(8), 789–803. https://doi.org/10.1016/S0145-2134(97)00039-2

Field, A., Miles, J., & Field, Z. (2013). *Discovering Statistics Using SPSS* (4th ed.). Thousand Oaks, California: Sage Publications.

Filipas, H. H., & Ullman, S. E. (2006). Child sexual abuse, coping responses, self-blame, posttraumatic stress disorder, and adult sexual revictimization. *Journal of Interpersonal Violence*, *21*(5), 652–672. https://doi.org/10.1177/0886260506286879

Finkelhor, D. (1987). The trauma of child sexual abuse: Two models. *Journal of Interpersonal Violence*, *2*(4), 348–366.

Finkelhor, D. (1993). Epidemiological identification factors in the clinical of child sexual abuse. *Child Abuse and Neglect*, *17*, 67–70.

Finkelhor, D. (2009). The prevention of childhood sexual abuse. *The Future of Children*, *19*, 169–193. https://doi.org/10.1353/foc.0.0035

Finkelhor, D., Ormrod, R. K., & Turner, H. A. (2007a). Poly-victimization: A neglected component in child victimization. *Child Abuse and Neglect*, *31*(1), 7–26. https://doi.org/10.1016/j.chiabu.2006.06.008

Finkelhor, D., Ormrod, R. K., & Turner, H. A. (2007b). Re-victimization patterns in a national longitudinal sample of children and youth. *Child Abuse and Neglect*, *31*(5), 479–502. https://doi.org/10.1016/j.chiabu.2006.03.012

Finkelhor, D., Ormrod, R. K., & Turner, H. A. (2009). The developmental epidemiology of childhood victimization. *Journal of Interpersonal Violence*, *24*(5), 711–731.

https://doi.org/10.1177/0886260508317185

Finkelhor, D., Shattuck, A., Turner, H. A., & Hamby, S. L. (2014). The lifetime prevalence of child sexual abuse and sexual assault assessed in late adolescence. *Journal of Adolescent Health*, *55*(3), 329–333. https://doi.org/10.1016/j.jadohealth.2013.12.026

Finkelhor, D., Turner, H. A., Shattuck, A., & Hamby, S. L. (2015). Prevalence of childhood exposure to violence, crime, and abuse. *Pediatrics*, *169*(8), 746–754. https://doi.org/10.1001/jamapediatrics.2015.0676

Finkelhor, D., Turner, H., Ormrod, R., & Hamby, S. L. (2009). Violence, abuse, and crime exposure in a national sample of children and youth. *Pediatrics*, *124*(5), 1411–1423. https://doi.org/10.1542/peds.2009-0467

Fisher, R. A. (1934). Two new properties of mathematical likelihood. *Proceedings of the Royal Society Series A, Containing Papers of a Mathematical and Physical Character*, *144*(852), 285–307. https://doi.org/10.1098/rspa.1934.0050

Flaherty, E. G., & Stirling, J. (2010). The pediatrician's role in child maltreatment prevention. *Pediatrics*, *126*(4), 833–841. https://doi.org/10.1542/peds.2010-2087

Fleming, J., Mullen, P., & Bammer, G. (1997). A study of potential risk factors for sexual abuse in childhood. *Child Abuse & Neglect*, *21*(1), 49–58.

Folger, S. F., & Wright, M. O. D. (2013). Altering risk following child maltreatment: Family and friend support as protective factors. *Journal of Family Violence*, *28*(4), 325–337. https://doi.org/10.1007/s10896-013-9510-4

Fontes, L. A. (2002). Child discipline and physical abuse in immigrant Latino families: Reducing violence and misunderstandings. *Journal of Counseling & Development*, *80*(1), 31–40.

Forde, D. R., Baron, S. W., Scher, C. D., & Stein, M. B. (2012). Factor structure and reliability

of the Childhood Trauma Questionnaire and prevalence estimates of trauma for male and female street youth. *Journal of Interpersonal Violence*, *27*(2), 364–379. https://doi.org/10.1177/0886260511416461

Foshee, V. A., Bauman, K. E., Ennett, S. T., Linder, G. F., Benefield, T., & Suchindran, C. (2004). Assessing the long-term effects of the Safe Dates program and a booster in preventing and reducing adolescent dating violence victimization and perpetration. *American Journal of Public Health*, *94*(4), 619–624. https://doi.org/10.2105/AJPH.94.4.619

Franklin, C. A. (2010). Physically forced, alcohol-induced, and verbally coerced sexual victimization: Assessing risk factors among university women. *Journal of Criminal Justice*, *38*(2), 149–159. https://doi.org/10.1016/j.jcrimjus.2010.02.004

French, B. H., Tilghman, J. D., & Malebranche, D. A. (2015). Sexual coercion context and psychosocial correlates among diverse males. *Psychology of Men & Masculinity*, *16*(1), 42–53. https://doi.org/10.1037/a0035915

Freyd, J. J., Putnam, F. W., Lyon, T. D., Becker-Blease, K. A., Cheit, R. E., Siegel, N. B., & Pezdek, K. (2005). The science of child sexual abuse. *Science*, *308*(5721), 501–501. https://doi.org/10.1126/science.1108066

Frick, P. (1991). *The Alabama Parenting Questionnaire*. Unpublished rating scale, University of Alabama.

Fuller, T., & Zhang, S. (2017). The impact of family engagement and child welfare services on maltreatment re-reports and substantiated re-reports. *Child Maltreatment*, *22*(3), 183–193. https://doi.org/10.1177/1077559517709996

Gallagher, B. (2000). The extent and nature of known cases Of institutional child sexual abuse. *British Journal of Social Work*, *30*, 795–817. https://doi.org/10.1093/bjsw/30.6.795

Gapen, M., Cross, D., Ortigo, K., Graham, A., Johnson, E., Evces, M., … Bradley, B. (2011). Perceived neighborhood disorder, community cohesion, and PTSD symptoms among low-income African Americans in an urban health setting. *American Journal of Orthopsychiatry*, *81*(1), 31–37. https://doi.org/10.1111/j.1939-0025.2010.01069.x

George, W. H., Davis, K. C., Masters, N. T., Jacques-Tiura, A. J., Heiman, J. R., Norris, J., … Andrasik, M. P. (2014). Sexual victimization, alcohol intoxication, sexual-emotional responding, and sexual risk in heavy episodic drinking women. *Archives of Sexual Behavior*, *43*(4), 645–658. https://doi.org/10.1007/s10508-013-0143-8

Gershoff, E. T. (2002). Corporal punishment by parents and associated child behaviors and experiences: A meta-analytic and theoretical review. *Psychological Bulletin*, *128*(4), 539–579. https://doi.org/10.1037//0033-2909.128.4.539

Gewirtz, A., Forgatch, M., & Wieling, E. (2008). Parenting practices as potential mechanisms for child adjustment following mass trauma. *Journal of Marital and Family Therapy*, *34*(2), 177–192. https://doi.org/10.1111/j.1752-0606.2008.00063.x

Gidycz, C. A., Loh, C., Lobo, T., Rich, C., Lynn, S. J., & Pashdag, J. (2007). Reciprocal relationships among alcohol use, risk perception, and sexual victimization: A prospective analysis. *Journal of American College Health*, *56*(1), 5–14. https://doi.org/10.3200/JACH.56.1.5-14

Gidycz, C. A., Orchowski, L. M., & Berkowitz, A. D. (2011). Preventing sexual aggression among college men: An evaluation of a social norms and bystander intervention program. *Violence Against Women*, *17*(6), 720–742. https://doi.org/10.1177/1077801211409727

Gilbert, R., Kemp, A., Thoburn, J., Sidebotham, P., Radford, L., Glaser, D., & MacMillan, H. L. (2009). Recognising and responding to child maltreatment. *The Lancet*, *373*(9658), 167–

180. https://doi.org/10.1016/S0140-6736(08)61707-9

Gilmore, A. K., Lewis, M. A., & George, W. H. (2015). A randomized controlled trial targeting alcohol use and sexual assault risk among college women at high risk for victimization. *Behaviour Research and Therapy*, *74*, 38–49. https://doi.org/10.1016/j.brat.2015.08.007

Glaser, D. (2002). Emotional abuse and neglect (psychological maltreatment): A conceptual framework. *Child Abuse and Neglect*, *26*(6–7), 697–714. https://doi.org/10.1016/S0145-2134(02)00342-3

Graham-Bermann, S. A., Gruber, G., Howell, K. H., & Girz, L. (2009). Factors discriminating among profiles of resilience and psychopathology in children exposed to intimate partner violence (IPV). *Child Abuse and Neglect*, *33*(9), 648–660. https://doi.org/10.1016/j.chiabu.2009.01.002

Grauerholz, L. (2000). An ecological approach to understanding sexual revictimization: Linking personal, interpersonal, and sociocultural factors and processes. *Child Maltreatment*, *5*(1), 5–17. https://doi.org/10.1177/1077559500005001002

Gravetter, F. J., & Wallnau, L. B. (2011). *Essentials of Statistics for the Behavioral Sciences*. *Wadsworth Cancage Learning* (9th ed.). Belmont, California.

Greenberg, M. T., Weissberg, R. P., O'Brien, M. U., Zins, J. E., Fredericks, L., Resnik, H., & Elias, M. J. (2003). Enhancing school-based prevention and youth development through coordinated social, emotional, and academic learning. *American Psychologist*, *58*(6–7), 466–474. https://doi.org/10.1037/0003-066X.58.6-7.466

Greenfield, E. A., & Marks, N. F. (2010). Sense of community as a protective factor against long-term psychological effects of childhood violence. *Social Service Review*, *84*(1), 129–147. https://doi.org/10.1086/652786

Greenwald, H. P., Pearson, D., Beery, W. L., & Cheadle, A. (2006). Youth development, community engagement, and reducing risk behavior. *Journal of Primary Prevention*, *27*(1), 3–25. https://doi.org/10.1007/s10935-005-0025-5

Griggs, T. L., Casper, W. J., & Eby, L. T. (2013). Work, family and community support as predictors of work-family conflict: A study of low-income workers. *Journal of Vocational Behavior*, *82*(1), 59–68. https://doi.org/10.1016/j.jvb.2012.11.006

Hadley, W., Houck, C. D., Barker, D., & Senocak, N. (2015). Relationships of parental monitoring and emotion regulation with early adolescents' sexual behaviors. *Journal of Development and Behavioral Pediatrics*, *36*(5), 381–388.

Hahn, A. M., Simons, R. M., & Simons, J. S. (2016). Childhood maltreatment and sexual risk taking: The mediating role of alexithymia. *Archives of Sexual Behavior*, *45*(1), 53–62. https://doi.org/10.1007/s10508-015-0591-4

Hamarman, S., Pope, K. H., & Czaja, S. J. (2002). Emotional abuse in children: Variations in legal definitions and rates across the United States. *Child Maltreatment*, *7*(4), 303–311. https://doi.org/10.1177/107755902237261

Hardt, J., & Rutter, M. (2004). Validity of adult retrospective reports of adverse childhood experiences: Review of the evidence. *Journal of Child Psychology and Psychiatry*, *45*(2), 260–273.

Harris, K. M. (2013). *The Add Health Study: Design and Accomplishments*. Carolina Population Center, University of North Carolina at Chapel Hill.

Haskett, M. E., Nears, K., Sabourin Ward, C., & McPherson, A. V. (2006). Diversity in adjustment of maltreated children: Factors associated with resilient functioning. *Clinical Psychology Review*, *26*(6), 796–812. https://doi.org/10.1016/j.cpr.2006.03.005

Hébert, M., Lavoie, F., & Blais, M. (2014). Post Traumatic Stress Disorder/PTSD in adolescent victims of sexual abuse: Resilience and social support as protection factors. *Ciência & Saúde Coletiva*, *19*(3), 685–694. https://doi.org/10.1590/1413-81232014193.15972013

Hébert, M., Moreau, C., Blais, M., Lavoie, F., & Guerrier, M. (2017). Child sexual abuse as a risk factor for teen dating violence: Findings from a representative sample of Quebec youth. *Journal of Child & Adolescent Trauma*, *10*(1), 51–61. https://doi.org/10.1007/s40653-016-0119-7

Herrenkohl, T. I., Tajima, E. A., Whitney, S. D., & Huang, B. (2005). Protection against antisocial behavior in children exposed to physically abusive discipline. *Journal of Adolescent Health*, *36*(6), 457–465. https://doi.org/10.1016/j.jadohealth.2003.09.025

Hessler, D. M., & Katz, L. F. (2010). Brief report: Associations between emotional competence and adolescent risky behavior. *Journal of Adolescence*, *33*(1), 241–246. https://doi.org/10.1016/j.adolescence.2009.04.007

Hines, D. A. (2007). Predictors of sexual coercion against women and men: A multilevel, multinational study of university students. *Archives of Sexual Behavior*, *36*(3), 403–422. https://doi.org/10.1007/s10508-006-9141-4

Hlavka, H. R. (2014). Normalizing sexual violence: Young women account for harassment and abuse. *Gender and Society*, *28*(3), 337–358. https://doi.org/10.1177/0891243214526468

Horwitz, A. G., Hill, R. M., & King, C. A. (2011). Specific coping behaviors in relation to adolescent depression and suicidal ideation. *Journal of Adolescence*, *34*(5), 1077–1085. https://doi.org/10.1016/j.adolescence.2010.10.004

Howell, K. H., Graham-Bermann, S. A., Czyz, E., & Lilly, M. (2010). Assessing resilience in preschool children exposed to intimate partner violence. *Violence and Victims*, *25*(2), 150–

164. https://doi.org/10.1891/0886-6708.25.2.150

Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, *6*(1), 1–55. https://doi.org/10.1080/10705519909540118

Hummel, A., Shelton, K. H., Heron, J., Moore, L., & van den Bree, M. B. M. (2013). A systematic review of the relationships between family functioning, pubertal timing and adolescent substance use. *Addiction*, *108*(3), 487–496. https://doi.org/10.1111/add.12055

Hussong, A., & Chassin, L. (1994). The stress-negative affect model of adolescent alcohol use: Disaggregating negative affect. *Journal of Studies on Alcohol*, *55*(6), 707–718. https://doi.org/10.15288/jsa.1994.55.707

Hussong, A., Hicks, R., Levy, S., & Curran, P. (2001). Specifying the relations between affect and heavy alcohol use among young adults. *Journal of Abnormal Psychology*, *110*(3), 449–461.

Irwin, C. E. J., & Millstein, S. G. (1992). Risk-taking behaviors and biopsychosocial development during adolescence. In E. Susman, L. Feagans, & W. Ray (Eds.), *Emotion, cognition, health, and development in children and adolescents* (pp. 75–102). Erlbaum.

Jankowski, M. K., Leitenberg, H., Henning, K., & Coffey, P. (2002). Parental caring as a possible buffer against sexual revictimization in young adult survivors of child sexual abuse. *Journal of Traumatic Stress*, *15*(3), 235–244. https://doi.org/10.1023/A:1015259412746

Jennings, L. B., Parra-Medina, D. M., Hilfinger Messias, D. K., & McLoughlin, K. (2006). Toward a critical social theory of youth empowerment. *Journal of Community Practice*, *14*(1–2), 31–55. https://doi.org/10.1300/J125v14n01

Johnson, A., Mercer, C., Erens, B., Copas, A., McManus, S., Wellings, K., … Nanchahal, K. (2001). Sexual behavior in Britain: Partnerships, practices, and HIV risk behaviours. *The Lancet*, *358*, 1835–1842.

Jonson-Reid, M., Drake, B., & Kohl, P. L. (2009). Is the overrepresentation of the poor in child welfare caseloads due to bias or need? *Children and Youth Services Review*, *31*(3), 422–427. https://doi.org/10.1016/j.childyouth.2008.09.009

Jonson-Reid, M., Drake, B., & Zhou, P. (2013). Neglect subtypes, race, and poverty: Individual, family, and service characteristics. *Child Maltreatment*, *18*(1), 30–41. https://doi.org/10.1177/1077559512462452

Jordan, L. S., & Seponski, D. M. (2018). Public participation: Moving beyond the four walls of therapy. *Journal of Marital and Family Therapy*, *44*(1), 5–18. https://doi.org/10.1111/jmft.12240

Kan, M. L., McHale, S. M., & Crouter, A. C. (2008). Parental involvement in adolescent romantic relationships: Patterns and correlates. *Journal of Youth and Adolescence*, *37*(2), 168–179. https://doi.org/10.1007/s10964-007-9185-3

Karos, K., Niederstrasser, N., Abidi, L., Bernstein, D. P., & Bader, K. (2014). Factor structure, reliability, and known groups validity of the German version of the Childhood Trauma Questionnaire (short-form) in Swiss patients and nonpatients. *Journal of Child Sexual Abuse*, *23*(4), 418–430. https://doi.org/10.1080/10538712.2014.896840

Katon, W., Richardson, L., Russo, J., McCarty, C. A., Rockhill, C., McCauley, E., … Grossman, D. C. (2010). Depressive symptoms in adolescence: The association with multiple health risk behaviors. *General Hospital Psychiatry*, *32*(3), 233–239. https://doi.org/10.1016/j.genhosppsych.2010.01.008

Kearns, M. C., & Calhoun, K. S. (2010). Sexual revictimization and interpersonal effectiveness. *Violence and Victims*, *25*(4), 504–517. https://doi.org/10.1891/0886-6708.25.4.504

Ketring, S. A., & Feinauer, L. L. (1999). Perpetrator-victim relationship: Long-term effects of sexual abuse for men and women. *American Journal of Family Therapy*, *27*(2), 109–120. https://doi.org/10.1080/019261899262005

Khantzian, J. (1985). The self-medication hypothesis of addictive disorders: Focus on heroin and cocaine dependence. *American Journal of Psychiatry*, *142*(11), 1259–1264.

Kilpatrick, B., Howlett, M., Sedgwick, P., & Ghodse, A. H. (2000). Drug use, self report and urinalysis. *Drug and Alcohol Dependence*, *58*(1), 111–116. https://doi.org/10.1016/S0376-8716(99)00066-6

Kim, D., Park, S. C., Yang, H., & Oh, D. H. (2011). Reliability and validity of the Korean version of the childhood trauma questionnaire-short form for psychiatric outpatients. *Psychiatry Investigation*, *8*(4), 305–311. https://doi.org/10.4306/pi.2011.8.4.305

Kimerling, R., Alvarez, J., Pavao, J., Kaminski, A., & Baumrind, N. (2007). Epidemiology and consequences of women's revictimization. *Women's Health Issues*, *17*(2), 101–106. https://doi.org/10.1016/j.whi.2006.12.002

Kiser, L. J., & Black, M. M. (2005). Family processes in the midst of urban poverty: What does the trauma literature tell us? *Aggression and Violent Behavior*. https://doi.org/10.1016/j.avb.2005.02.003

Koss, M. P., & Gidycz, C. A. (1985). Sexual experiences survey: Reliability and validity. *Journal of Consulting and Clinical Psychology*, *53*(3), 422–423. https://doi.org/10.1037/0022-006X.53.3.422

Kotchick, B. A., & Forehand, R. (2002). Putting parenting in perspective: A discussion of the

contextual factors that shape parenting practices. *Journal of Child and Family Studies*, *11*(3), 255–269. https://doi.org/10.123/A:1016863921662

Kotchick, B. A., Shaffer, A., Forehand, R., & Miller, K. S. (2001). Adolescent sexual risk behavior: A multi-system perspective. *Clinical Psychology Review*, *21*(4), 493–519.

Krahe, B. (2000). Childhood sexual abuse and revictimization in adolescence and adulthood. *Journal of Personal and Interpersonal Loss*, *5*(3), 149–165. https://doi.org/10.1080/10811440008409749

Krahe, B., & Berger, A. (2017). Gendered pathways from child sexual abuse to sexual aggression victimization and perpetration in adolescence and young adulthood. *Child Abuse and Neglect*, *63*, 261–272. https://doi.org/10.1016/j.chiabu.2016.10.004

Kumpfer, K. L., & Alvarado, R. (2003). Family-strengthening approaches for the prevention of youth problem behaviors. *American Psychologist*, *58*(6–7), 457–465. https://doi.org/10.1037/0003-066X.58.6-7.457

Lalor, K., & McElvaney, R. (2010). Child sexual abuse, links to later sexual exploitation/high-risk sexual behavior, and prevention/treatment programs. *Trauma, Violence and Abuse*, *11*(4), 159–177. https://doi.org/10.1177/1524838010378299

Lehrer, J. A., Shrier, L. A., Gortmaker, S., & Buka, S. (2006). Depressive symptoms as a longitudinal predictor of sexual risk behaviors among US middle and high school students. *Pediatrics*, *118*(1), 189–200. https://doi.org/10.1542/peds.2005-1320

Leifer, M., Kilbane, T., & Kalick, S. (2004). Vulnerability or resilience to intergenerational sexual abuse: The role of maternal factors. *Child Maltreatment*, *9*(1), 78–91. https://doi.org/10.1177/1077559503261181

Lewinsohn, P. M., Seeley, J. R., Roberts, R. E., & Allen, N. B. (1997). Center for Epidemiologic

Studies Depression Scale (CES-D) as a screening instrument for depression among community-residing older adults. *Psychology and Aging*, *12*(2), 277–287. https://doi.org/10.1037/0882-7974.12.2.277

Lewis, T., McElroy, E., Harlaar, N., & Runyan, D. (2016). Does the impact of child sexual abuse differ from maltreated but non-sexually abused children? A prospective examination of the impact of child sexual abuse on internalizing and externalizing behavior problems. *Child Abuse and Neglect*, *51*, 31–40. https://doi.org/10.1016/j.chiabu.2015.11.016

Lietz, C., & Strength, M. (2011). Stories of successful reunification: A narrative study of family resilience in child welfare. *Families in Society*, *92*(2), 203–210. https://doi.org/10.1606/1044-3894.4102

Little, R. J., & Rubin, D. B. (2002). *Statistical analysis with missing data* (2nd ed.). Hoboken, New Jersey: John Wiley & Sons.

Littleton, H. L. (2010). The impact of social support and negative disclosure reactions on sexual assault victims: A cross-sectional and longitudinal investigation. *Journal of Trauma and Dissociation*, *11*(2), 210–227. https://doi.org/10.1080/15299730903502946

Lynch, M., & Cicchetti, D. (1998). An ecological-transactional analysis of children and contexts: The longitudinal interplay among child maltreatment, community violence, and children's symptomatology. *Development and Psychopathology*, *10*(2), 235–257. https://doi.org/10.1017/S095457949800159X

MacMillan, H. L., Jamieson, E., & Walsh, C. A. (2003). Reported contact with child protection services among those reporting child physical and sexual abuse: Results from a community survey. *Child Abuse and Neglect*, *27*(12), 1397–1408. https://doi.org/10.1016/j.chiabu.2003.06.003

Macy, R. J. (2008). A research agenda for sexual revictimization: Priority areas and innovative statistical methods. *Violence Against Women*, *14*(10), 1128–1147. https://doi.org/10.1177/1077801208322701

Maker, A. H., Kemmelmeier, M., & Peterson, C. (2001). Child sexual abuse, peer sexual abuse, and sexual assault in adulthood: A multi-risk model of revictimization. *Journal of Traumatic Stress*, *14*(2), 351–368. https://doi.org/10.1023/A:1011173103684

Manly, J. T., Cicchetti, D., & Barnett, D. (1994). The impact of subtype, frequency, chronicity, and severity of child maltreatment on social competence and behavior problems. *Development and Psychopathology*, *6*(01), 121–143. https://doi.org/10.1017/S0954579400005915

Marchand, E., & Smolkowski, K. (2013). Forced intercourse, individual and family context, and risky sexual behavior among adolescent girls. *Journal of Adolescent Health*, *52*(1), 89–95. https://doi.org/10.1016/j.jadohealth.2012.04.011

Marmorstein, N. R. (2009). Longitudinal associations between alcohol problems and depressive symptoms: Early adolescence through early adulthood. *Alcoholism: Clinical and Experimental Research*, *33*(1), 49–59. https://doi.org/10.1111/j.1530-0277.2008.00810.x

Marsh, H. W., Hau, K. T., & Wen, Z. (2004). In search of golden rules: Comment on hypothesis-testing approaches to setting cutoff values for fit indexes and dangers in overgeneralizing Hu and Bentler's (1999) findings. *Structural Equation Modeling*, *11*(3), 320–341. https://doi.org/10.1207/s15328007sem1103_2

Marx, B. P., Calhoun, K. S., Wilson, A. E., & Meyerson, L. A. (2001). Sexual revictimization prevention: An outcome evaluation. *Journal of Consulting and Clinical Psychology*, *69*(1), 25–32. https://doi.org/10.1037//0022-006X.69.I.25

Marx, B. P., Heidt, J. M., & Gold, S. D. (2005). Perceived uncontrollability and unpredictability, self-regulation, and sexual revictimization. *Review of General Psychology*, *9*(1), 67–90. https://doi.org/10.1037/1089-2680.9.1.67

Massetti, G. M., Vivolo, A. M., Brookmeyer, K., DeGue, S., Holland, K. M., Holt, M. K., & Matjasko, J. L. (2011). Preventing youth violence perpetration among girls. *Journal of Women's Health*, *20*(10), 1415–1428. https://doi.org/10.1089/jwh.2011.3057

McAlinden, A. M. (2006). 'Setting "em up": Personal, familial and institutional grooming in the sexual abuse of children. *Social and Legal Studies*, *15*(3), 339–362. https://doi.org/10.1177/0964663906066613

McCauley, J. L., Calhoun, K. S., & Gidycz, C. A. (2010). Binge drinking and rape: A prospective examination of college women with a history of previous sexual victimization. *Journal of Interpersonal Violence*, *25*(9), 1655–1668. https://doi.org/10.1177/0886260509354580

Mennen, F. E., Kim, K., Sang, J., & Trickett, P. K. (2010). Child neglect: Definition and identification of youth's experiences in official reports of maltreatment. *Child Abuse and Neglect*, *34*(9), 647–658. https://doi.org/10.1016/j.chiabu.2010.02.007

Messman-Moore, T. L., & Brown, A. L. (2004). Child maltreatment and perceived family environment as risk factors for adult rape: Is child sexual abuse the most salient experience? *Child Abuse and Neglect*, *28*(10), 1019–1034. https://doi.org/10.1016/j.chiabu.2004.05.003

Messman-Moore, T. L., & Long, P. J. (2002). Alcohol and substance use disorders as predictors of child to adult sexual revictimization in a sample of community women. *Violence and Victims*, *17*(3), 319–340. https://doi.org/10.1891/vivi.17.3.319.33662

Messman-Moore, T. L., & Long, P. J. (2003). The role of childhood sexual abuse sequelae in the

sexual revictimization of women: An empirical review and theoretical reformulation. *Clinical Psychology Review*, *23*(4), 537–571. https://doi.org/10.1016/S0272-7358(02)00203-9

Messman, T. L., & Long, P. J. (1996). Child sexual abuse and its relationship to revictimization in adult women: A review. *Clinical Psychology Review*, *16*(5), 397–420. https://doi.org/10.1016/0272-7358(96)00019-0

Miao, T.-A., Umemoto, K., Gonda, D., & Hishinuma, E. S. (2011). Essential elements for community engagement in evidence-based youth violence prevention. *American Journal of Community Psychology*, *48*(1–2), 120–132. https://doi.org/10.1007/s10464-010-9418-6

Miller, B. C., Benson, B., & Galbraith, K. A. (2001). Family relationships and adolescent pregnancy risk: A research synthesis. *Developmental Review*, *21*(1), 1–38. https://doi.org/10.1006/drev.2000.0513

Miller, E., Tancredi, D. J., McCauley, H. L., Decker, M. R., Virata, M. C. D., Anderson, H. A., … Silverman, J. G. (2012). "Coaching boys into men": A cluster-randomized controlled trial of a dating violence prevention program. *Journal of Adolescent Health*, *51*(5), 431–438. https://doi.org/10.1016/j.jadohealth.2012.01.018

Miner, M. H., Flitter, J. M. K., & Robinson, B. E. (2006). Association of sexual revictimization with sexuality and psychological function. *Journal of Interpersonal Violence*, *21*(4), 503–524. https://doi.org/10.1177/0886260505285913

Miron, L. R., & Orcutt, H. K. (2014). Pathways from childhood abuse to prospective revictimization: Depression, sex to reduce negative affect, and forecasted sexual behavior. *Child Abuse and Neglect*, *38*(11), 1848–1859. https://doi.org/10.1016/j.chiabu.2014.10.004

Mohler-Kuo, M., Dowdall, G. W., Koss, M. P., & Wechsler, H. (2004). Correlates of rape while

intoxicated in a national sample of college women. *Journal of Studies on Alcohol*, *65*(1), 37–45. https://doi.org/10.15288/jsa.2004.65.37

Molinuevo, B., Pardo, Y., & Torrubia, R. (2011). Psychometric analysis of the Catalan version of the Alabama Parenting Questionnaire (APQ) in a community sample. *The Spanish Journal of Psychology*, *14*(2), 944–955. https://doi.org/10.1037/0033-2909.101.2.213

Moore, L., & Moore, G. F. (2011). Public health evaluation: Which designs work, for whom and under what circumstances? *Journal of Epidemiology and Community Health*, *65*(7), 596–597. https://doi.org/10.1136/jech.2009.093211

Mossakowski, K. N. (2009). The influence of past unemployment duration on symptoms of depression among young women and men in the United States. *American Journal of Public Health*, *99*(10), 1826–1832. https://doi.org/10.2105/AJPH.2008.152561

Moulden, H. M., Firestone, P., & Wexler, A. F. (2007). Child care providers who commit sexual offences: A description of offender, offence, and victim characteristics. *International Journal of Offender Therapy and Comparative Criminology*, *51*(4), 384–406. https://doi.org/10.1177/0306624X06298465

Munro, E. (2010). Learning to reduce risk in child protection. *British Journal of Social Work*, *40*(4), 1135–1151. https://doi.org/10.1093/bjsw/bcq024

Mustaine, E. E., Tewksbury, R., Huff-Corzine, L., Corzine, J., & Marshall, H. (2014). Community characteristics and child sexual assault: Social disorganization and age. *Journal of Criminal Justice*, *42*(2), 173–183. https://doi.org/10.1016/j.jcrimjus.2013.06.016

Muthén, B. O. (1993). Goodness of fit with categorical and other non-normal variables. In K. A. Bollen & J. S. Long (Eds.), *Testing structural equation models* (pp. 205–243). Newbury Park, CA: Sage.

Muthén, B. O. (2004). *Technical Appendices*. Los Angeles, CA: Muthén & Muthén.

Muthén, B. O., Satorra, A., & Muthén, B. (1995). Complex sample data in structural equation modeling. *Sociological Methodology*, *25*(1995), 267–316.

Muthén, L. K., & Muthén, B. O. (2002). How to Use a Monte Carlo Study to Decide on Sample Size and Determine Power. *Structural Equation Modeling*, *9*(4), 599–620. https://doi.org/10.1207/S15328007SEM0904

Muthén, L. K., & Muthén, B. O. (2017). *Mplus User's Guide: Statistical Analysis With Latent Variables* (Seventh). Los Angeles, CA: Muthén & Muthén. https://doi.org/10.1111/j.1532-5415.2004.52225.x

Nanni, V., Uher, R., & Danese, A. (2012). Childhood maltreatment predicts unfavorable course of illness and treatment outcome in depression: A meta-analysis. *American Journal of Psychiatry*, *169*(2), 141–151. https://doi.org/10.1176/appi.ajp.2011.11020335

Nation, M., Bess, K., Voight, A., Perkins, D. D., & Juarez, P. (2011). Levels of community engagement in youth violence prevention: The role of power in sustaining successful university-community partnerships. *American Journal of Community Psychology*, *48*(1–2), 89–96. https://doi.org/10.1007/s10464-010-9414-x

Negriff, S., Schneiderman, J. U., & Trickett, P. K. (2017). Concordance between self-reported childhood maltreatment versus case record reviews for child welfare–affiliated adolescents: Prevalence rates and associations with outcomes. *Child Maltreatment*, *22*(1), 34–44. https://doi.org/10.1177/1077559516674596

Nelson, E. C., Heath, A. C., Madden, P. A. F., Cooper, M. L., Dinwiddie, S. H., Bucholz, K. K., … Martin, N. G. (2002). Association between self-reported childhood sexual abuse and adverse psychosocial outcomes. *Archives of General Psychiatry*, *59*(2), 139.

https://doi.org/10.1001/archpsyc.59.2.139

Noll, J. G., Shenk, C. E., & Putnam, K. T. (2009). Childhood sexual abuse and adolescent pregnancy: A meta-analytic update. *Journal of Pediatric Psychology*, *34*(4), 366–378. https://doi.org/10.1093/jpepsy/jsn098

Norcross, J. C., & Wampold, B. E. (2011). What works for whom: Tailoring psychotherapy to the person. *Journal of Clinical Psychology*, *67*(2), 127–132. https://doi.org/10.1002/jclp.20764

Norris, J., Nurius, P., & Graham, T. (1999). When a date changes from fun to dangerous: Factors affecting women's ability to distinguish. *Violence Against Women*, *5*(3), 230–250. https://doi.org/0803973233

NSCAW Research Group, Barth, R. P., Biemer, P., Runyan, D., Webb, M. B., Berrick, J. D., … Wallace, I. (2002). Methodological lessons from the National Survey of Child and Adolescent Well-Being: The first three years of the USA's first national probability study of children and families investigated for abuse and neglect. *Child and Youth Services Review*, *24*, 513–541. https://doi.org/10.1016/S0190-7409(02)00199-8

O'Donnell, L., Stueve, A., Duran, R., Myint-U, A., Agronick, G., San Doval, A., & Wilson-Simmons, R. (2008). Parenting practices, parents' underestimation of daughters' risks, and alcohol and sexual behaviors of urban girls. *Journal of Adolescent Health*, *42*(5), 496–502. https://doi.org/10.1016/j.jadohealth.2007.10.008

O'Mara-Eves, A., Brunton, G., McDaid, D., Oliver, S., Kavanagh, J., Jamal, F., … Thomas, J. (2013). Community engagement to reduce inequalities in health: A systematic review, meta-analysis and economic analysis. *Public Health Research*, *1*(4), 1–526. https://doi.org/10.3310/phr01040

Obasaju, M. A., Palin, F. L., Jacobs, C., Anderson, P., & Kaslow, N. J. (2009). Won't you be my neighbor? Using an ecological approach to examine the impact of community on revictimization. *Journal of Interpersonal Violence*, *24*(1), 38–53. https://doi.org/10.1177/0886260508314933

Oshima, K. M., Jonson-Reid, M., & Seay, K. D. (2014). The influence of childhood sexual abuse on adolescent outcomes: The roles of gender, poverty, and revictimization. *Journal of Child Sexual Abuse*, *23*(4), 367–386. https://doi.org/10.1080/10538712.2014.896845

Oshri, A., Sutton, T. E., Clay-Warner, J., & Miller, J. D. (2015). Child maltreatment types and risk behaviors: Associations with attachment style and emotion regulation dimensions. *Personality and Individual Differences*, *73*, 127–133. https://doi.org/10.1016/j.paid.2014.09.015

Oshri, A., Tubman, J. G., & Jaccard, J. (2011). Psychiatric symptom typology in a sample of youth receiving substance abuse treatment services: Associations with self-reported child maltreatment and sexual risk behaviors. *AIDS and Behavior*, *15*(8), 1844–1856. https://doi.org/10.1007/s10461-011-9890-5

Overstreet, S., & Mazza, J. (2003). An ecological-transactional understanding of community violence: Theoretical perspectives. *School Psychology Quarterly*, *18*(1), 66–87. https://doi.org/10.1521/scpq.18.1.66.20874

Papalia, N. L., Luebbers, S., Ogloff, J. R. P., Cutajar, M., Mullen, P. E., & Mann, E. (2017). Further victimization of child sexual abuse victims: A latent class typology of re-victimization trajectories. *Child Abuse and Neglect*, *66*, 112–129. https://doi.org/10.1016/j.chiabu.2017.02.040

Parker, J. S., & Benson, M. J. (2004). Parent-adolescent relations and adolescent functioning:

Self-esteem, substance abuse, and delinquency. *Adolescence*, *39*(155), 519–530.

Parkes, A., Henderson, M., Wight, D., & Nixon, C. (2011). Is parenting associated with teenagers' early sexual risk-taking, autonomy and relationship with sexual partners? *Perspectives on Sexual and Reproductive Health*, *43*(1), 30–40. https://doi.org/10.1363/4303011

Pereda, N., Guilera, G., Forns, M., & Gomez-Benito, J. (2009). The prevalence of child sexual abuse in community and student samples: A meta-analysis. *Clinical Psychology Review*, *29*(4), 328–338. https://doi.org/10.1016/j.cpr.2009.02.007

Perkins, D. F., & Jones, K. R. (2004). Risk behaviors and resiliency within physically abused adolescents. *Child Abuse and Neglect*, *28*(5), 547–563. https://doi.org/10.1016/j.chiabu.2003.12.001

Perkins, D. F., Luster, T., & Jank, W. (2002). Protective factors, physical abuse, and purging from community-wide surveys of female adolescents. *Journal of Adolescent Research*, *17*(4), 377–400. https://doi.org/10.1177/07458402017004004

Peterson, C., & Seligman, M. E. P. (1983). Learned helplessness and victimization. *Journal of Social Issues*, *39*(2), 103–116. https://doi.org/10.1111/j.1540-4560.1983.tb00143.x

Peterson, Z. D., Voller, E. K., Polusny, M. A., & Murdoch, M. (2011). Prevalence and consequences of adult sexual assault of men: Review of empirical findings and state of the literature. *Clinical Psychology Review*, *31*(1), 1–24. https://doi.org/10.1016/j.cpr.2010.08.006

Pico-Alfonso, M. A., Garvia-Linares, M. I., Celda-navarro, N., Blasco-ros, C., Echeburua, E., & Martinez, M. (2006). The impact of physical, psychological, and sexual intimate male partner violence on women's mental health: Depressive symptoms, posttraumatic stress

disorder, state anxiety, and suicide. *Journal of Women's Health*, *15*(5), 599–611.

Pina, A., Gannon, T. A., & Saunders, B. (2009). An overview of the literature on sexual harassment: Perpetrator, theory, and treatment issues. *Aggression and Violent Behavior*, *14*(2), 126–138. https://doi.org/10.1016/j.avb.2009.01.002

Pittenger, S. L., Huit, T. Z., & Hansen, D. J. (2016). Applying ecological systems theory to sexual revictimization of youth: A review with implications for research and practice. *Aggression and Violent Behavior*, *26*, 35–45. https://doi.org/10.1016/j.avb.2015.11.005

Pumphrey-Gordon, J. E., & Gross, A. M. (2007). Alcohol consumption and females' recognition in response to date rape risk: The role of sex-related alcohol expectancies. *Journal of Family Violence*, *22*(6), 475–485. https://doi.org/10.1007/s10896-007-9104-0

Radloff, L. S. (1977). The CES-D Scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement*, *1*(3), 385–401. https://doi.org/10.1177/014662167700100306

Reid, J. A., & Sullivan, C. J. (2009). A model of vulnerability for adult sexual victimization: The impact of attachment, child maltreatment, and scarred sexuality. *Violence and Victims*, *24*(4), 485–501. https://doi.org/10.1891/0886-6708.24.4.485

Renner, L. M., & Slack, K. S. (2006). Intimate partner violence and child maltreatment: Understanding intra- and intergenerational connections. *Child Abuse and Neglect*, *30*(6), 599–617. https://doi.org/10.1016/j.chiabu.2005.12.005

Rich, C. L., Gidycz, C. A., Warkentin, J. B., Loh, C., & Weiland, P. (2005). Child and adolescent abuse and subsequent victimization: A prospective study. *Child Abuse and Neglect*, *29*(12), 1373–1394. https://doi.org/10.1016/j.chiabu.2005.07.003

Rodgers, K. B., & McGuire, J. K. (2012). Adolescent sexual risk and multiple contexts:

Interpersonal violence, parenting, and poverty. *Journal of Interpersonal Violence*, *27*(11), 2091–2107. https://doi.org/10.1177/0886260511432148

Rolison, M. R., & Scherman, A. (2003). College student risk-taking from three perspectives. *Adolescence*, *38*(152), 689–704.

Roodman, A. A., & Clum, G. A. (2001). Revictimization rates and method variance: A meta-analysis. *Clinical Psychology Review*, *21*(2), 183–204. https://doi.org/10.1016/S0272-7358(99)00045-8

Roth, D. L., Ackerman, M. L., Okonkwo, O. C., & Burgio, L. D. (2008). The four-factor model of depressive symptoms in dementia caregivers: A structural equation model of ethnic differences. *Psychology and Aging*, *23*(3), 567–576. https://doi.org/10.1037/a0013287

Rourke, H. P. O., & Mackinnon, D. P. (2018). Reasons for testing mediation in the absence of an intervention effect: A research imperative in prevention and intervention research. *Journal of Studies on Alcohol and Drugs*, *79*(2), 171–181.

Royston, P. (2004). Multiple imputation of missing values. *The Stata Journal*, *4*(3), 227–241. https://doi.org/10.1111/j.1541-0420.2010.01538.x

Ruggiero, K. J., McLeer, S. V., & Dixon, J. F. (2000). Sexual abuse characteristics associated with survivor psychopathology. *Child Abuse and Neglect*, *24*(7), 951–964. https://doi.org/10.1016/S0145-2134(00)00144-7

Rzepnicki, T. L., & Johnson, P. R. (2005). Examining decision errors in child protection: A new application of root cause analysis. *Children and Youth Services Review*, *27*(4), 393–407. https://doi.org/10.1016/j.childyouth.2004.11.015

Sanders, M. R. (1999). The Triple P - Positive Parenting Program: Towards an empirically validated multilevel parenting and family support strategy for the prevention of behaviour

and emotional problems in children. *Clinical Child and Family Psychology Review*, *2*(2), 71–90. https://doi.org/10.1037/a0035997

Santa Maria, D., Markham, C., Bluethmann, S., & Mullen, P. D. (2015). Parent-based adolescent sexual health interventions and effect on communication outcomes: A systematic review and meta-analyses. *Perspectives on Sexual and Reproductive Health*, *47*(1), 37–50. https://doi.org/10.1363/47e2415

Santor, D. A., & Coyne, J. C. (1997). Shortening the CES-D to improve its ability to detect cases of depression. *Psychological Assessment*, *9*(3), 233–243. https://doi.org/10.1037/1040-3590.9.3.233

Sapienza, J. N., Corbie-Smith, G., Keim, S., & Fleischman, A. R. (2007). Community engagement in epidemiological research. *Ambulatory Pediatrics*, *7*(3), 247–252. https://doi.org/10.1016/j.ambp.2007.01.004

Scott, K. M., Von Korff, M., Angermeyer, M. C., Benjet, C., Bruffaerts, R., De Girolamo, G., … Kessler, R. C. (2011). Association of childhood adversities and early-onset mental disorders with adult-onset chronic physical conditions. *Archives of General Psychiatry*, *68*(8), 838–844. https://doi.org/10.1001/archgenpsychiatry.2011.77

Senn, C. Y., Eliasziw, M., Barata, P. C., Thurston, W. E., Newby-Clark, I. R., Radtke, H. L., & Hobden, K. L. (2015). Efficacy of a sexual assault resistance program for university women. *New England Journal of Medicine*, *372*(24), 2326–2335. https://doi.org/10.1056/NEJMsa1411131

Senn, C. Y., Eliasziw, M., Barata, P. C., Thurston, W. E., Newby-Clark, I. R., Radtke, L., & Hobden, K. L. (2013). Sexual assault resistance education for university women: Study protocol for a randomized controlled trial (SARE trial). *BMC Women's Health*, *13*(25), 1–

13. https://doi.org/10.1037/0022-006X.59.3.464

Senn, C. Y., Eliasziw, M., Hobden, K. L., Newby-Clark, I. R., Barata, P. C., Radtke, H. L., & Thurston, W. E. (2017). Secondary and 2-year outcomes of a sexual assault resistance program for university women. *Psychology of Women Quarterly*, *41*(2), 147–162. https://doi.org/10.1177/0361684317690119

Senn, T. E., Carey, M. P., & Vanable, P. A. (2008). Childhood and adolescent sexual abuse and subsequent sexual risk behavior: Evidence from controlled studies, methodological critique, and suggestions for research. *Clinical Psychology Review*, *28*(5), 711–735. https://doi.org/10.1016/j.cpr.2007.10.002

Shelton, K. K., Frick, P. J., & Wootton, J. (1996). Assessment of parenting practices in families of elementary school-age children. *Journal of Clinical Child Psychology*, *25*(3), 317–329. https://doi.org/10.1207/s15374424jccp2503_8

Shrier, L. A., Feldman, H. A., Black, S. K., Walls, C., Kendall, A. D., Lops, C., & Beardslee, W. R. (2012). Momentary affective states surrounding sexual intercourse in depressed adolescents and young adults. *Archives of Sexual Behavior*, *41*(5), 1161–1171. https://doi.org/10.1007/s10508-011-9787-4

Shrier, L. A., Koren, S., Aneja, P., & De Moor, C. (2010). Affect regulation, social context, and sexual intercourse in adolescents. *Archives of Sexual Behavior*, *39*(3), 695–705. https://doi.org/10.1007/s10508-008-9394-1

Siegel, J. A., & Williams, L. M. (2003). Risk factors for sexual victimization of women: Results from a prospective study. *Violence Against Women*, *9*(8), 902–930. https://doi.org/http://dx.doi.org/10.1177/1077801203255130

Simons, J. S., Gaher, R. M., Correia, C. J., Hansen, C. L., & Christopher, M. S. (2005). An

affective-motivational model of marijuana and alcohol problems among college students. *Psychology of Addictive Behaviors*, *19*(3), 326–334. https://doi.org/10.1037/0893-164X.19.3.326

Simpson Rowe, L., Jouriles, E. N., Mcdonald, R., Platt, C. G., & Gomez, G. S. (2012). Enhancing women's resistance to sexual coercion: A randomized controlled trial of the DATE program. *Journal of American College Health*, *60*(3), 211–218. https://doi.org/10.1080/07448481.2011.587068

Skowron, E., & Reinemann, D. H. S. (2005). Effectiveness of psychological interventions for child maltreatment: A meta-analysis. *Psychotherapy*, *42*(1), 52–71. https://doi.org/10.1037/0033-3204.42.1.52

Smith, P. H., White, J. W., & Holland, L. (2003). A longitudinal perspective on dating violence among adolescents and college-age women. *American Journal of Public Health*, *93*(7), 104–110. https://doi.org/10.2105/AJPH.93.7.1104

Snyder, S. M., & Merritt, D. H. (2015). The influence of supervisory neglect on subtypes of emerging adult substance use after controlling for familial factors, relationship status, and individual traits. *Substance Abuse*, *36*(4), 507–514.

Sobel, M. E. (1982). Asymptotic confidence intervals for indirect effects in structural equation models. *Sociological Methodology*, *13*, 290–312. https://doi.org/10.2307/270723

Spaccarelli, S., & Kim, S. (1995). Resilience criteria and factors associated with resilience in sexually abused girls. *Child Abuse and Neglect*, *19*(9), 1171–1182. https://doi.org/10.1016/0145-2134(95)00077-L

Spinhoven, P., Penninx, B., Hickendorff, M., van Hemert, A. M., Bernstein, D. P., & Elzinga, B. M. (2014). Childhood trauma questionnaire: Factor structure, measurement invariance, and

validity across emotional disorders. *Psychological Assessment*, *26*(3), 717–729. https://doi.org/10.1037/pas0000002

Steiger, J. H. (1990). Structural model evaluation and modification: An interval estimation approach. *Multivariate Behavioral Research*, *25*(2), 173–180. https://doi.org/10.1207/s15327906mbr2502_4

Steinberg, L. (2005). Cognitive and affective development in adolescence. *Trends in Cognitive Sciences*, *9*(2), 69–74. https://doi.org/10.1016/j.tics.2004.12.005

Steinberg, L. (2008). Neuroscience perspective on adolescent risk taking. *Developmental Review*, *28*(1), 1–27. https://doi.org/10.1016/j.dr.2007.08.002.A

Steinberg, L., & Morris, A. S. (2001). Adolescent development. *Annual Review of Psychology*, *52*, 83–110. https://doi.org/10.1146/annurev.psych.52.1.83

Stermac, L., Reist, D., Addison, M., & Millar, G. M. (2002). Childhood risk factors for women's sexual victimization. *Journal of Interpersonal Violence*, *17*(6), 647–670. https://doi.org/10.1177/0886260502017006004

Stogner, J., Miller, J. M., Fisher, B. S., Stewart, E. A., & Schreck, C. J. (2014). Peer group delinquency and sexual victimization: Does popularity matter? *Women and Criminal Justice*, *24*(1), 62–81. https://doi.org/10.1080/08974454.2013.842520

Straus, M. A., Hamby, S. L., Finkelhor, D., Moore, D. W., & Runyan, D. (1998). Identification of child maltreatment with the parent-child Conflict Tactics Scales: Development and psychometric data for a national sample of American parents. *Child Abuse and Neglect*, *22*(4), 249–270. https://doi.org/10.1016/S0145-2134(97)00174-9

Straus, M. A., & Stewart, J. H. (1999). Corporal punishment by American parents: National data on prevalence, chronicity, severity and duration, in relation to child and family

characteristics. *Clinical Child and Family Psychology Review*, *2*(2), 271–288.

Stuewig, J., & McCloskey, L. A. (2005). The relation of child maltreatment to shame and guilt among adolescents: Psychological routes to depression and delinquency. *Child Maltreatment*, *10*(4), 324–336. https://doi.org/10.1177/1077559505279308

Testa, M., Hoffman, J. H., & Livingston, J. A. (2010). Alcohol and sexual risk behaviors as mediators of the sexual victimization–revictimization relationship. *Journal of Consulting and Clinical Psychology*, *78*(2), 249–259. https://doi.org/10.1037/a0018914

Testa, M., Hoffman, J. H., Livingston, J. A., & Turrisi, R. (2010). Preventing college women's sexual victimization through parent based intervention: A randomized controlled trial. *Prevention Science*, *11*(3), 308–318. https://doi.org/10.1007/s11121-010-0168-3

Testa, M., VanZile-Tamsen, C., & Livingston, J. A. (2004). Assessing women's experiences of sexual aggression using the sexual experiences survey: Evidence for validity and implications for research. *Psychology of Women Quarterly*, *28*(3), 256–265.

Testa, M., VanZile-Tamsen, C., & Livingston, J. A. (2005). Childhood sexual abuse, relationship satisfaction, and sexual risk taking in a community sample of women. *Journal of Consulting and Clinical Psychology*, *73*(6), 1116–1124. https://doi.org/10.1037/0022-006X.73.6.1116

Tewksbury, R. (2007). Effects of sexual assaults on men: Physical, mental and sexual consequences. *International Journal of Men's Health*, *6*(1), 22–35. https://doi.org/10.3149/jmh.0601.22

Tewksbury, R., & Mustaine, E. E. (2008). Where registered sex offenders live: Community characteristics and proximity to possible victims. *Victims and Offenders*, *3*(1), 86–98. https://doi.org/10.1080/15564880701752371

Thapar, A. A. K., Collishaw, S., Pine, D. S., & Thapar, A. A. K. (2012). Depression in

adolescence. *The Lancet*, *379*(9820), 1056–1067. https://doi.org/10.1016/S0140-6736(11)60871-4

Thomas, M., Chenot, D., & Reifel, B. (2005). A resilience-based model of reunification and reentry: Implications for out-of-home care services. *Families in Society*, *86*(2), 235–243. https://doi.org/10.1606/1044-3894.2458

Thombs, B. D., Bernstein, D. P., Lobbestael, J., & Arntz, A. (2009). A validation study of the Dutch Childhood Trauma Questionnaire-Short Form: Factor structure, reliability, and known-groups validity. *Child Abuse and Neglect*, *33*(8), 518–523. https://doi.org/10.1016/j.chiabu.2009.03.001

Torres, E. (2012). Psychometric properties of the center for epidemiologic studies depression scale in African American and Black Caribbean US adults. *Issues in Mental Health Nursing*, *33*(10), 687–696. https://doi.org/10.3109/01612840.2012.697534

Trochim, W. M. K. (2006). *The Research Methods Knowledge Base* (2nd ed.). Cincinnati, Ohio: Atomic Dog Publishing.

Turner, H. A., Finkelhor, D., & Ormrod, R. (2007). Family structure variations in patterns and predictors of child victimization. *American Journal of Orthopsychiatry*, *77*(2), 282–295. https://doi.org/10.1037/0002-9432.77.2.282

Turner, H. A., Finkelhor, D., & Ormrod, R. (2010). The effects of adolescent victimization on self-concept and depressive symptoms. *Child Maltreatment*, *15*(1), 76–90. https://doi.org/10.1177/1077559509349444

Turner, H. A., Shattuck, A., Hamby, S., & Finkelhor, D. (2013). Community disorder, victimization exposure, and mental health in a national sample of youth. *Journal of Health and Social Behavior*, *54*(2), 258–275. https://doi.org/10.1177/0022146513479384

U.S. Department of Health & Human Services. (2018). *Child Maltreatment 2016*. Administration for Children and Families, Administration on Children, Youth and Families, Children's Bureau. Available from https://www.acf.hhs.gov/cb/research-data-technology/statistics-research/child-maltreatment.

Ullman, S. E. (2007). Relationship to perpetrator, disclosure, social reactions, and PTSD symptoms in child sexual abuse survivors. *Journal of Child Sexual Abuse*, *16*(1), 19–36. https://doi.org/10.1300/J070v16n01

Ullman, S. E., Najdowski, C. J., & Filipas, H. H. (2009). Child sexual abuse, post-traumatic stress disorder, and substance use: Predictors of revictimization in adult sexual assault survivors. *Journal of Child Sexual Abuse*, *18*(4), 367–385. https://doi.org/10.1080/10538710903035263

Ullman, S. E., & Vasquez, A. L. (2015). Mediators of sexual revictimization risk in adult sexual assault victims. *Journal of Child Sexual Abuse*, *24*(3), 300–314. https://doi.org/http://dx.doi.org/10.1080/10538712.2015.1006748

Valdez, C. E., Lim, B. H., & Lilly, M. M. (2013). "It's going to make the whole tower crooked": Victimization trajectories in IPV. *Journal of Family Violence*, *28*(2), 131–140. https://doi.org/10.1007/s10896-012-9476-7

Van Hoorn, J., Crone, E. A., & Van Leijenhorst, L. (2017). Hanging out with the right crowd: Peer influence on risk-taking behavior in adolescence. *Journal of Research on Adolescence*, *27*(1), 189–200. https://doi.org/10.1111/jora.12265

Van Hoorn, J., Van Dijk, E., Meuwese, R., Rieffe, C., & Crone, E. A. (2016). Peer influence on prosocial behavior in adolescence. *Journal of Research on Adolescence*, *26*(1), 90–100. https://doi.org/10.1111/jora.12173

Vera, E. M., & Speight, S. L. (2003). Multicultural competence, social justice, and counseling psychology: Expanding our roles. *The Counseling Psychologist*, *31*(3), 253–272. https://doi.org/10.1177/0011000002250634

Vranceanu, A. M., Hobfoll, S. E., & Johnson, R. J. (2007). Child multi-type maltreatment and associated depression and PTSD symptoms: The role of social support and stress. *Child Abuse and Neglect*, *31*(1), 71–84. https://doi.org/10.1016/j.chiabu.2006.04.010

Wager, N. M. (2013). Sexual revictimization: Double betrayal and the risk associated with dissociative amnesia. *Journal of Child Sexual Abuse*, *22*(7), 878–899. https://doi.org/10.1080/10538712.2013.830666

Walker, H. E., Freud, J. S., Ellis, R. A., Fraine, S. M., & Wilson, L. C. (2017). The prevalence of sexual revictimization: A meta-analytic review. *Trauma, Violence, & Abuse*, 1–44. https://doi.org/10.1177/1524838017692364

Walsh, K., Danielson, C., McCauley, J., Saunders, B., Kilpatrick, D., & Resnick, H. (2012). National prevalence of posttraumatic stress disorder among sexually revictimized adolescent, college, and adult household-residing women. *Archives of General Psychiatry*, *69*(9), 935. https://doi.org/10.1001/archgenpsychiatry.2012.132

Walsh, K., Messman-Moore, T., Zerubavel, N., Chandley, R. B., DeNardi, K. A., & Walker, D. P. (2013). Perceived sexual control, sex-related alcohol expectancies and behavior predict substance-related sexual revictimization. *Child Abuse and Neglect*, *37*(5), 353–359. https://doi.org/10.1016/j.chiabu.2012.11.009

Walsh, K., Resnick, H. S., Danielson, C. K., McCauley, J. L., Saunders, B. E., & Kilpatrick, D. G. (2014). Patterns of drug and alcohol use associated with lifetime sexual revictimization and current posttraumatic stress disorder among three national samples of adolescent,

college, and household-residing women. *Addictive Behaviors*, *39*(3), 684–689. https://doi.org/10.1016/j.addbeh.2013.12.006

Weiss, K. G. (2010). Male sexual victimization: Examining men's experiences of rape and sexual assault. *Men and Masculinities*, *12*(3), 275–298. https://doi.org/10.1177/1097184X08322632

West, C. M., Williams, L. M., & Siegel, J. A. (2000). Adult sexual revictimization among black women sexually abused in childhood: A prospective examination of serious consequences of abuse. *Child Maltreatment*, *5*(1), 49–57. https://doi.org/10.1177/1077559500005001006

White, M. D., & Terry, K. J. (2008). Child sexual abuse in the catholic church: Revisiting the rotten apples explanation. *Criminal Justice and Behavior*, *35*(5), 658–678. https://doi.org/10.1177/0093854808314470

Wilcox, H., Field, T., Prodromidis, M., & Scafidi, F. (1998). Correlations between the BDI and CES-D in a sample of adolescent mothers. *Adolescence*, *33*(131), 564–574.

Wills, T., Sandy, J. M., Shinar, O., & Yaeger, A. (1999). Contributions of positive and negative affect to adolescent substance use: Test of a bidimensional model in a longitudinal study. *Psychology of Addictive Behaviors*, *13*(4), 327–338. https://doi.org/10.1037/0893-164X.13.4.327

Yeater, E. A., & O'Donohue, W. (1999). Sexual assault prevention programs: Current issues, future directions, and the potential efficacy of interventions with women. *Clinical Psychology Review*, *19*(7), 739–771. https://doi.org/10.1016/S0272-7358(98)00075-0

Yoon, S., Voith, L. A., & Kobulsky, J. M. (2018). Gender differences in pathways from child physical and sexual abuse to adolescent risky sexual behavior among high-risk youth. *Journal of Adolescence*, *64*, 89–97. https://doi.org/10.1016/j.adolescence.2018.02.006

Young, J. F., Berenson, K., Cohen, P., & Garcia, J. (2005). The role of parent and peer support in predicting adolescent depression: A longitudinal community study. *Journal of Research on Adolescence*, *15*(4), 407–423. https://doi.org/10.1111/j.1532-7795.2005.00105.x

Zhou, Y. Q., Chew, Q. R. C., Lee, M., Zhou, J., Chong, D., Quah, S. H., … Tan, L. J. (2017). Evaluation of Positive Parenting Programme (Triple P) in Singapore: Improving parenting practices and preventing risks for recurrence of maltreatment. *Children and Youth Services Review*, *83*, 274–284. https://doi.org/10.1016/j.childyouth.2017.10.029

Zimmerman, M. A. (2010). Natural mentors, mental health, and risk behaviors: A longitudinal analysis of African American adolescents transitioning into adulthood. *American Journal of Community Psychology*, *46*(1–2), 36–48. https://doi.org/10.1007/s10464-010-9325-x.Natural