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A Pathway to Child Sex Trafficking in Prostitution: The Impact of Strain and Risk-Inflating Responses

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A Pathway to Child Sex Trafficking in Prostitution:
The Impact of Strain and Risk-Inflating Responses

by

Joan A. Reid

A dissertation submitted in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy
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child abuse, runaways, family strain

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Joan A. Reid

Abstract

Victims of child sex trafficking in prostitution in the United States are often overlooked, misidentified, and among the most underserved type of child victim of crime. The majority of previous research on child sex trafficking has been conducted without a theoretical framework or reliable sampling methods. In this study, a schematic composed of a series of stepping-stones from childhood abuse to prostitution, which has been described by gendered pathways researchers, served as a sensitizing template for the study's development of a strain-reactive pathway into child sex trafficking. Agnew's general strain theory provided the primary theoretical basis for the proposed pathway, supplying both explanations of the generative factors of the pathway and the mechanisms operating within the life trajectory terminating in child sex trafficking in prostitution. Based on this theoretical framework, this study utilized structural equation modeling to examine the pathway by investigating the effects of caregiver strain, child maltreatment, and risk-inflating responses to strain on vulnerability to victimization in child sex trafficking in prostitution. Four structural equation models, incorporating different forms of child maltreatment, were assessed using data from a matched sample of 174 minority females who were residents of one U.S. city and participated in a

longitudinal study on the effects of child sexual abuse. Findings show that the occurrence of child maltreatment including child neglect, child physical abuse, and juvenile sexual victimization increased with caregiver strain. Consequentially, neglected and abused children were more likely to have engaged in the risk-inflating responses of running away and earlier initiation of drug or alcohol use, and they also reported higher levels of relational shame. Both running away and early initiation of substance use impacted vulnerability to victimization in child sex trafficking in prostitution. Lastly, implications of the findings related to protection and intervention strategies that are projected to obstruct the progression of minors along the analytically identified pathway into child sex trafficking in prostitution are presented for criminal justice professionals, child protection investigators, and social service providers.

Chapter 1

Introduction

Operating in the shadows, the sex trafficking of minors in the United States is considered among the most difficult forms of child maltreatment to expose or investigate (Estes & Weiner, 2001, 2005; Williams & Frederick, 2009). In an era of unprecedented technological accessibility, coupled with greater assurance of anonymity, the number of children exploited by the commercial sex industry continues to escalate (Cooper, 2005a; Farr, 2005; Finkelhor, Mitchell, & Wolak, 2005; Free & Collins, 2005; Hughes, 2002, 2005; Malesky, 2005; Trifiletti, 2005). Yet, their tragedy remains virtually invisible within a society reluctant to acknowledge the crime or its victims (Dalla, 2000; DeMarco, 2004; Fang, 2005; Farley, 2003; Kreston, 2000, 2005; Vieth & Ragland, 2005; Williams & Frederick, 2009; Whitehead, 2008). While using a tiered system to assess and sanction other countries based on their attempts to combat human trafficking (DeStefano, 2007; U.S. Department of State [DOS], 2009), the United States is failing to combat trafficking in prostitution of U.S. children in its major cities (Estes & Wiener, 2001, 2005; Flowers, 1998, 2001; Wilson & Dalton, 2008) and in rural America (Heineman, Shelton, & Anton, 2006; Vieth & Ragland, 2005). Among the populations of child victims of crime, sexually exploited minors entrapped in prostitution are the most marginalized – overlooked by society, by law enforcement, by social services, and by scholarly research (Clawson & Dutch, 2008; Vieth & Ragland, 2005; Williams & Frederick, 2009).

Selection of Terms

A variety of labels have been applied to minors used for prostitution in the illegal commercial sex industry, from child/juvenile/teen prostitute or sex worker to child sex trafficking victim (Grant, 2005). The conflicting terminology prevents the identification of victims, impedes efforts to recover victims from traffickers, hinders criminal investigations and prosecutions of traffickers, and hampers the delivery of victim services (Grant, 2005; Shared Hope International [SHI], 2008).

Ultimately, this disparity in labeling results in discrimination in the treatment of the minor victims of sex trafficking, depending on the particular form of sexual exploitation to which the minor has been subjected (SHI, 2008). In many instances when a prostituted minor comes to the attention of state or local authorities, instead of the offense being treated as a case of child victimization, the crime is often classified as a public nuisance crime by law enforcement and the minor is arrested (Adelson, 2008; Albanese, 2007; Federal Advisory Committee on Juvenile Justice [FACJJ], 2007; Finkelhor & Ormond, 2004; Mitchell, Finkelhor, & Wolak, 2009; National Center for Missing and Exploited Children [NCMEC], n.d.).

In contrast, the Federal Trafficking Victims Protection Act (TVPA, 2000) and its reauthorizations (Trafficking Victims Protection Reauthorization Act [TVPRA] of 2003, 2005, 2008) have defined all minors involved in commercial sex acts (e.g., prostitution, pornography) as victims of trafficking, including minors who are U.S. citizens or lawful permanent residents, stating that all persons under the age of 18 “induced to perform a commercial sex act” are victims of a “severe form of trafficking” (TVPA, 2000, Sec. 103). The U.S. Department of Justice Model State Anti-Trafficking Criminal Statute states that

buying the sexual services of a minor constitutes child sex trafficking even if the involvement of a third party or trafficker profiting from the sex act is not established (Adelson, 2008; U.S. Department of Justice [DOJ], n.d.).

The U.S. Department of State “Trafficking in Persons Report 2008” addressed the inappropriate labeling of sexually exploited children by stating, “Terms such as ‘child sex worker’ are unacceptable because they falsely sanitize the brutality of this exploitation” (DOS, 2008, para. 16; see also, Grant, 2005). Furthermore, describing a victim of child sex trafficking as a “prostitute” focuses solely on the minor as an offender, ignoring the exploitive role of the buyer and the sex trafficker (Grant, 2005; Hanna, 2002; Vieth & Ragland, 2005). Research has noted that sex traffickers control the majority of the girls in prostitution in the United States (Albanese, 2007; Estes & Weiner, 2001, 2005; NCMEC, 2008) and most commonly exploit younger girls and runaways (Clawson, 2009; Sheridan & VanPelt, 2005; Williamson & Cluse-Tolar, 2002; Vieth & Ragland, 2005).

Utilizing language analysis, researchers have examined the effects of word selection in the print media to describe sexually exploited children (Goddard, De Bortoli, Saunders & Tucci, 2005). Placing terms on a continuum, they found that:

‘Child prostitution’ is more likely to be located on the continuum in close proximity to adult prostitution, rather than to child sexual abuse. As ‘child prostitution’ inherits the adult prostitution discourse, it moves along the continuum and away from the concepts of child sexual abuse and victimization. The child is constructed as an accomplice to his or her own sexual abuse, the effect of which is a redefinition of the offence and the offender (p. 286).

Such terminology is employed by the print media in order to spare readers from the discomfort of fully acknowledging the child's victimization (Goddard et al., 2005). This "textual abuse" results in the collective societal exploitation of the minor victims through the minimization of the crime committed against them (Goddard et al., 2005, p. 278). In accordance with the results from this language analysis and adhering to the terms used in the TVPA of 2000 and the subsequent reauthorizations, in this paper the term chosen to denote minors victimized by commercial sexual exploitation is *child sex trafficking victim*. In this paper the term chosen for those who profit by sexually exploiting children is *sex traffickers*.

Purpose of the Study

The scant information gleaned from the few existing studies on the topic of child sex trafficking has consistently exposed both individual and community risk markers that affect the likelihood of a minor becoming entrapped in prostitution (Estes & Wiener, 2005; Clawson, 2009). However, research has not yet established, nor endeavored to explore, how these risks develop and interact to create the heightened vulnerability observed in certain minors (Williams & Frederick, 2009). Theoretical propositions have not been proffered to advance a fuller understanding of the process that generates susceptibility to entrapment in child sex trafficking (Goździak & Bump, 2008a).

The purpose of the current study is to design and assess a probable explanation of the processes inducing the entrapment of victims in child sex trafficking, specifically focusing on prostituted girls. This particular population of sex trafficking victims was chosen because girls face higher risk for entrapment in sex trafficking than boys (Clawson, 2009) and prostituted minors are the most marginalized and overlooked type

of child sex trafficking victim (Williams & Frederick, 2009). Incorporating the typically observed risk markers of such victims and circumspectly drawing from the propositional components of sound criminological theory, this study delineates a process or pathway into victimization in child sex trafficking in prostitution.

As a history of escalating victimizations and multiple childhood adversities has been frequently documented in child sex trafficking victims (Albanese, 2007; Clawson, 2009; Estes & Wiener, 2005), two theories that articulate cogent explanations concerning the cumulative effects of harmful events or conditions are examined and provide the foundation for the theoretical framework of this study. Specifically using descriptive research from gendered pathways theory as an initial starting point and applying key propositions of general strain theory, this study first crafts and then analytically tests a theoretically based pathway. A sample of high-risk individuals who possess several primary, identified risk factors for victimization in child sex trafficking was used to assess the proposed pathway. Strategically utilizing data collected from 174 females of minority and lower socio-economic status living in an urban environment, the research-based theoretical framework is tested, endeavoring to determine how certain risk factors merge to increase vulnerability to victimization in child sex trafficking.

The data used for this study were originally collected for use in a longitudinal study of sexually abused children (Siegel & Williams, 2001a, 2001b). The members of the original sample of sexually abused girls were later matched to similar individuals without such abuse histories. Hence, the total sample includes girls with prior sexual abuse histories as well as those who did not have such a history at the outset of the study. By exploring the process by which girls from this sample became entrapped in

prostitution as minors, this study provides empirically supported information that may be useful in the development of effective prevention education for at-risk youth and in guiding the professionals engaged in serving them. The findings from the study also add to the limited body of available empirical knowledge, essential for the creation of effective therapeutic interventions for prostituted minors.

Composition of the Chapters

To provide a more complete understanding of the crime explored by this study, the second chapter briefly presents an overview of child sex trafficking. Within this chapter, information is reviewed that has been gathered on child sex trafficking victims in the United States, both international and domestic. Prior research focusing on U.S. minors entrapped in prostitution is covered, including figures projecting the number of child sex trafficking victims in the United States, the estimated average age of minors at initiation into sex trafficking, the empirically supported risk factors, and the broad spectrum of short-term and long-term consequences endured by child sex trafficking victims.

As little criminological theory has been applied to the specific problem of child sex trafficking in prostitution (Bender, in press; Graycar & McCusker, 2007), the third chapter explores previous research regarding the victimization of minors, applying such research to this elusive and inadequately studied crime against children. First, the chapter reviews the current status of general theoretical explanations of child sex trafficking, identifying the crucial role to be filled by criminological theory. Next, studies investigating the interconnectedness of offending and victimization are reviewed, endeavoring to determine whether current criminological theories predicting offending

are sufficient to encompass and explain the victimization of minors. The latter half of the third chapter reviews the empirically explored explanations of heightened susceptibility to victimization of children and adolescents, highlighting how these explanations might apply to child sex trafficking victims. Finally, as numerous reports have indicated that the majority of minors entrapped in sex trafficking have experienced prior victimizations (Albanese, 2007; Estes & Weiner, 2001, 2005), the last section of the third chapter outlines two major perspectives framing persistence in certain behaviors or the episodic repetition of specified events, including a discussion of their conceptual contribution to understanding the repeat victimization of minors.

As the objective of this study is to progress beyond the use of a risk factor paradigm for explaining child sex trafficking victims, the fourth chapter posits “a plausible process” (Wikström and Sampson, 2006, p. 2) by which minors become entrapped in prostitution. This chapter includes the review of two criminological theories, gendered pathways theory and general strain theory, including a discussion of their application to child sex trafficking victims. Using a descriptive pathway followed by girls into prostitution previously documented by gendered pathways researchers as a preliminary blueprint and drawing upon essential theoretical components of general strain theory, a model pathway is further defined, explicating the developmental sequences and processes contributing to vulnerability to victimization in child sex trafficking in prostitution.

The fifth chapter covers the methodological plan used for testing the theorized pathway presented in the fourth chapter. Given that the great majority of research on child sex trafficking victims has been qualitative in nature, the current study utilizes

structural equation modeling to identify a pathway into child sex trafficking in prostitution.

Structural equation modeling is used to assess whether the propositions hypothesized within this study can withstand statistical testing. This quantitative extension in methodology represents an important advancement in research on the topic of child sex trafficking. From a research perspective, it is important to offer multivariate, quantitative evidence of the existence of the posited pathway into child sex trafficking. In this manner, the study quantitatively identifies a pathway of escalating victimization into child sex trafficking in prostitution and provides further validation of the previous findings on this topic that were based primarily on qualitative research methods. As noted, the pathway was tested utilizing data drawn from a longitudinal study of African American girls, many of whom had documented sexual abuse histories, who were followed into adulthood. The fifth chapter includes a detailed description the study participants and the data collection procedures. The measures incorporated in the structural equation model are reviewed, accompanied by assessments of their validity and reliability. Lastly, the analytic strategy used in the current study is outlined, including the steps followed in identifying and assessing the four structural equation models included in the study that are each reflective of the theorized pathway.

The results of the current study are presented in Chapter 6. First, the descriptive statistics of the study sample are reported to provide a greater understanding of the data being utilized to test the suitability of the proposed models. In addition, bivariate analyses are reported, noting the strength, direction, and statistical significance of the associations between the 15 observed variables selected for inclusion in the structural equation models with the objective of evaluating the necessity and appropriateness of conducting further analysis. In the latter half of the chapter, results from the multivariate

analyses are reported. Assessments of all four models are covered, including results from: (a) the measurement model, (b) the structural equation model, and (c) the supplementary model exploring the effect of negative emotion. The results from the analyses of each of the four models are sequentially reviewed.

Chapter 7 includes a discussion of the results of the analyses. Within this chapter, the implications stemming from the findings such as recommendations for new policies, prevention strategies, and the application of effective treatment interventions are considered. Limitations of the current study are also described, several contributions of this study to scholarly literature are highlighted, and suggestions for further research are offered.

Chapter 2

Child Sex Trafficking Victimization in the United States

Child sex trafficking is classified within the general crime category of trafficking in persons or human trafficking (DOS, 2008, 2009; Fong & Cardoso, in press; TVPA, 2000). First and foremost considered an acute human rights issue, human trafficking deprives thousands of men, women, and children of their fundamental rights to human dignity and personal freedoms (DOS, 2009; Farrell & Fahy, 2009; Kelly, 2005; Lehti & Aromaa, 2007). Child sex trafficking is deemed to be a particularly intolerable form of human trafficking, due to the natural and inherent vulnerability of children, possessing both physical and psychological weakness and immaturity (International Labour Organization [ILO], n.d., 2008; United Nations, 1995; Vieth & Ragland, 2005). As a global economic and health risk, sex trafficking of women and children has been investigated and found to contribute to the transmission of disease, creating overwhelming health costs to local communities, and ultimately sustaining poverty by hindering economic and social development (Agrusa, 2003; Leung, 2003; Silverman et al., 2006, 2007). In some underdeveloped countries the prostitution of children contributes significantly to the gross national product, and the lives of children are sacrificed for the short-term economic benefit (Farr, 2005; Leth, 2005). Providing enormous financial profits for organized crime, trafficking in children has been exposed

as a source of corruption and violence¹ (Belser, 2005; DOS, 2009; Farr, 2005; Graycar & McCusker, 2007; Kelly, 2005; Raymond, Hughes, & Gomez, 2010; Shlyk, 2007; Studnicka, 2010; Williams, 2008). Accordingly, trafficking in persons, whether adults or children, has been declared to be more than a human rights issue; instead, it is now perceived as a complex problem involving the criminal justice systems throughout the world (Cooper, 2005b; Finckenauer & Schrock, 2003; Friesendorf, 2010; Kreston, 2005; Lebov, 2010; Musto, 2009; Wilson & Dalton, 2008; Zhang, 2009).

As if slowly awakening to the nightmarish reality of this most egregious violation of human rights, child sex trafficking is now preeminently featured as a critical concern of the international community (Cooper, 2005a; ILO, 2008; United Nations, 1995). However, the definition of child sex trafficking remains ambiguous and many misconceptions regarding this form of child maltreatment still exist (Adelson, 2008; Clawson, 2009; Laczko & Gramegna, 2003; Mitchell et al., 2009; Musto, 2009; Schauer & Wheaton, 2006; Skilbrei & Tveit, 2008). To provide the most clarity and precision, the legal definitions provided within the Trafficking Victims Protection Act (TVPA) of 2000 will serve as the primary basis for defining child sex trafficking victimization within this paper.

Defining Child Sex Trafficking

The TVPA of 2000 noted that human trafficking is “a contemporary manifestation of slavery whose victims are predominantly women and children” (Sec. 102a). The TVPA (2000) delineated child sex trafficking as a severe form of trafficking in persons. Specifically, the TVPA described severe forms of trafficking as “(a) sex trafficking in

¹ Annual profits reaching \$5 billion dollars are estimated from the prostitution of children worldwide (United Nations, 1995).

which a commercial sex act is induced by force, fraud or coercion², or in which the person induced to perform such act is under 18 years of age; or (b) the recruitment, harboring, transportation, provision, or obtaining of a person for labor or services, through the use of force, fraud or coercion, for the purpose of subjecting that person to involuntary servitude, peonage (where someone is held against their will to pay off a debt), debt bondage, or slavery” (TVPA, 2000, Sec. 103(8)). Thus, child sex trafficking is one of the many forms of trafficking in persons (DOS, 2008, 2009) and is categorized as a severe form of trafficking (TVPA, 2000). If an individual has not reached the age of 18, the use of force, fraud, or coercion is not required for any involvement in commercial sex industry to be deemed sex trafficking. Furthermore, according to the U.S. Department of Justice Model State Anti-Trafficking Criminal Statute, buying the sexual services of a minor constitutes child sex trafficking, and the buyer is considered guilty of trafficking when there is no third party or trafficker profiting from the sex act (Adelson, 2008; DOJ, n.d.). According to this definition, child sex trafficking would comprise all activities involved in inducing a minor’s involvement in commercial sexual exploitation,

² The U.S. Department of Health and Human Services [HHS] defined force, fraud, and coercion as follows:

Force involves the use of rape, beatings and confinement to control victims. Forceful violence is used especially during the early stages of victimization, known as the “seasoning process,” which is used to break victims’ resistance to make them easier to control.

Fraud often involves false offers that induce people into trafficking situations. For example, women and children will reply to advertisements promising jobs as waitresses, maids, and dancers in other countries and are then trafficked for purposes of prostitution once they arrive at their destinations.

Coercion involves threats of serious harm to, or physical restraint of, any person; any scheme, plan or pattern intended to cause a person to believe that failure to perform an act would result in serious harm to or physical restraint against any person; or the abuse or threatened abuse of the legal process (HHS, n.d.a, para. 7-9).

from the initial recruitment of the minor into commercial sex exploitation to the buying of the sexual services of the minor (Adelson, 2008; Kreston, 2005; Moossy, 2009).

In the TVPA, minors are defined as all individuals who have not yet reached the age of 18. This age demarcation of childhood is in agreement with the definition of a child by the Convention on the Rights of the Child (Office of the United Nations High Commissioner for Human Rights, 1989) and in The Worst Forms of Child Labour Convention No. 182, which was ratified by 169 member states of the International Labour Organization of the United Nations (ILO, n.d.). According to the ratified convention, this definition of a child is binding regardless of varied or distinct existing national legislation. Even if countries have legalized prostitution, they must prohibit commercial sexual exploitation of any individual under the age of 18 (ILO, n.d.).

The TVPA of 2000 also provided a clear definition of commercial sexual activity, stating, “The term ‘commercial sex act’ means any sex act on account of which anything of value is given to or received by any person” (Sec. 103(3)). Thus, child sex trafficking victims would include all minors exploited in any commercial sexual activity. Commercial sexual exploitation of children may include the selling of minors for prostitution, the production of pornography, stripping and nude dancing, or live sex shows. The commercial sexual exploitation of children involves the exchange of “anything of value” for the sexual act of the minor (TVPA, 2000, Sec. 103(3)). The commercial exchange can involve payment or compensation in the form of money, services, or goods (TVPA, 2000).

The ILO incorporated a similar characterization, stating that the commercial sexual exploitation of children “includes the use of girls and boys in sexual activities

remunerated in cash or in kind” and specifies forms of commercial sexual exploitation of children as (1) procuring or offering children for prostitution, (2) child sex tourism, (3) the production, promotion, and distribution of child pornography, and (4) the use of children in private or public sex shows (ILO, n.d.). Summarizing, child sex trafficking includes the entire continuum of acts involved in recruiting, transporting, harboring, maintaining, and procuring individuals, who have not reached the age of 18, for the purpose of commercial sexual exploitation (Kreston, 2005; Moosy, 2009).

Due to the conventional meaning of the term trafficking, a widespread misconception is that child sex trafficking involves the clandestine movement of children across international or interstate borders (Logan, Walker, & Hunt, 2009). Although the movement of child sex trafficking victims is commonly practiced to hamper detection of criminal activities by local law enforcement, it is not a necessary component of child sex trafficking (Clawson, 2009). According to the definitions distinguishing trafficking from smuggling provided by the U.S. Department of Health and Human Services, “Trafficking need not entail the physical movement of a person” (HHS, n.d.b). In fact, estimates suggest that 25% of child sex trafficking victims never leave home, but instead are exploited by family members (Estes & Weiner, 2001, 2005). Within the context of child sex trafficking, the term trafficking applies to the commercial component of the crime or exchange of payment, referring to the financial profit gained from the sex acts of minors. In drug, arms, or other types of illegal trafficking, merchandise is bought and sold or “moved” from buyer to seller. With child sex trafficking, a recruiter or transporter may sell the “merchandise” once to a single buyer, such as in the procuring of a minor by a trafficker or brothel owner. Yet, unlike illegal transactions involving drugs or arms, child sex trafficking victims may also be sold over and over by traffickers without being moved

from one location to another (Farr, 2005; Finckenauer & Schrock, 2003; Logan et al., 2009; Venkatraman, Jacob, & Henley, 2005).

Lastly, the most commonly held misconception regarding child sex trafficking victims in the United States is that these victims cannot be U.S. citizens or legal residents, but rather it is assumed that child sex trafficking victims are minors who have been illegally transported across international borders (Adelson, 2008; Fong & Cardoso, in press; Logan et al., 2009). However, the ILO recognized that victims may be trafficked “across international borders or within the child’s own country” (ILO, n.d., p. 1).

Although the TVPA of 2000 was primarily targeted at protecting international victims trafficked into the United States, it was not intended to exclude the protection of domestically trafficked victims (Adelson, 2008). In legislative deliberations prior to the passing of the TVPA in 2000, it was specifically stated that the TVPA would “make a difference for many American girls, mostly runaways who are then victimized by the traffickers” (statement by Representative Smith, quoted in Adelson, 2008, p. 101). Moreover the subsequent reauthorizations, the Trafficking Victims Protection Reauthorization Act (TVPRA) of 2003, 2005, and 2008, provided supplementary resources for the fight against human trafficking, including the provision of federal monies for programs to assist state and local law enforcement efforts in combating regional cases of human trafficking and to expand victim assistance programs to trafficking victims who are U.S. citizens or legal residents.

The Number of Child Sex Trafficking Victims in the United States

As a result of its secret and criminal nature, data on the number of international child sex trafficking victims in the United States remain elusive and obscured (Albanese,

2007; Goździak & Bump, 2008a, 2008b; Logan et al., 2009). While acknowledging the complexities involved in attaching a firm figure to this illegal form of child labor, by using standardized methodological guidelines to ensure comparability across countries and over time the ILO estimated that annually 1.8 million children are exploited worldwide in the commercial sex industry (ILO, n.d., 2008).

From the passing of the TVPA of 2000 until September 2007, a total of 142 minors had been identified as international trafficking victims in the United States, completed the lengthy legal process of obtaining victim status from Federal government, and subsequently obtained the specially designated trafficking victim visa (T-visa) in order to remain in the United States rather than be deported (Goździak & Bump, 2008a). Estes and Wiener (2001, 2005) estimated the number of international child sex trafficking victims in the United States to be 17,000; others have estimated the number of international victims trafficked into the United States every year to be 14,500 to 17,500, including both children and adults (HHS, n.d.b). Many believe that these estimates are far too low (Goździak & Bump, 2008b). Several associated figures support that assumption. Every year, approximately 100,000 unaccompanied children are apprehended by the U.S. Border Patrol (Goździak & Bump, 2008b; Haddal, 2007). Most are directly returned to their country of origin and approximately 7,000 to 10,000 are detained in U.S. federal custody yearly (Goździak & Bump, 2008b; Haddal, 2007; HHS, 2008).

The majority of the apprehended minors are Mexicans or youth from Central America (Barnett, 2004). Many of these detained youth report that they are seeking to join distant relatives, such as aunts or cousins, who have already entered into the United

States legally or illegally (Barnett, 2004). Others make the journey to the United States in search of a better life, as coming to the United States has become “the only hope for ‘street children’ in Central America” (Barnett, 2004, p. 4). However, little is known about these minors, such as whether they are victims of trafficking and in danger of revictimization (Barnett, 2004; Goździak & Bump, 2008b). Lastly, perhaps an even higher number of undocumented minors do successfully cross U.S. borders undetected. So, while the number of identified child victims of international sex trafficking remains small, concern exists that a larger population of international child victims remains unidentified and hidden.

Obtaining reliable estimates of the number of domestic child sex trafficking victims in the United States is similarly elusive and uncertain. However, the available figures suggest that this problem is worthy of concern and merits society’s resolute efforts toward prevention and victim protection. For example, during 2008 the National Center for Missing and Exploited Children (NCEMC) received more than 102,000 hotline tips regarding child sexual exploitation and analyzed more than nine million child pornographic images attempting to locate and rescue child victims (NCEMC, 2008). Of the approximately 800,000 U.S. children who are reported missing each year, it is estimated that 58,000 children are abducted by non-family members (Sedlak, Finkelhor, Hammer, & Schultz, 2002, p. 10.)³ The leading motive in such abductions is sexual and

³ A nonfamily abduction “occurs when a nonfamily perpetrator takes a child by the use of physical force or threat of bodily harm or detains a child for at least 1 hour in an isolated place by the use of physical force or threat of bodily harm without lawful authority or parental permission; or when a child who is younger than 15 years old or is mentally incompetent, without lawful authority or parental permission, is taken or detained by or voluntarily accompanies a nonfamily perpetrator who conceals the child’s whereabouts, demands ransom, or expresses the intention to keep the child permanently” (Sedlak et al., 2002, p. 4).

the majority of the victims are female teenagers (Finkelhor, Hammer, & Sedlak, 2002, p. 7, 10).

Furthermore, based on calculations of risk factors prevalent in certain populations of U.S. minors, it has been estimated that 10%-15% of U.S. "street" children or runaways are at risk for victimization in domestic commercial sexual exploitation (Estes & Weiner, 2001). The National Runaway Switchboard (NRS) estimates that from 1.6 to 2.8 million children run away in the United States every year (NRS, n.d.) and the U.S. homeless youth population is estimated to be between 1.3 to 1.5 million (Baron, 2003). Calculations based on these figures provide reason for concern, cautioning that every year approximately 130,000 to 420,000 U.S. minors may be in danger of entrapment in sexual exploitation in the United States. Other estimates of the number of U.S. minors exploited in prostitution range from 100,000 to three million (Fong & Cardoso, 2009; Friedman, 2007; Vieth & Ragland, 2005).

Two supplementary figures are available that contribute further information on the number of domestically trafficked minors in the United States. Ironically among the governmental agencies serving minors, juvenile justice agencies are most likely to keep data or track child sex trafficking victims as they continue to be detained as juvenile delinquents (Clawson, 2009; SHI, 2008; Halter, in press; Mitchell et al., 2009; Synder & Sickmund, 2006). For example in 2003, 1,400 youth were arrested for prostitution in the United States. Of these arrested youth, 69% were female and 14% were 14 years old or younger (Synder & Sickmund, 2006). Although the overall arrest rate for juveniles is in decline, the number of arrests for prostitution has increased 31 percent between 1994 and 2003 (Synder & Sickmund, 2006). In addition, since its inception in June 2003

through October 2009, the Federal Innocence Lost Initiative has recovered over 900 sexually exploited minors, rescued as a result of prostitution stings in various cities across the United States (Federal Bureau of Investigation [FBI], n.d.).

Despite the fact that the number of recovered minor victims, those who were either internationally or domestically trafficked, remains relatively low, concern exists that many more minors are in danger of being victimized or currently are entrapped in child sex trafficking. One explanation for the low number of identified and rescued minor victims is that when the authorities are investigating child sex crimes, their primary objective is the apprehension of the criminals, not the rescue of victims (Jones, 2005; Taylor & Quayle, 2003). As a result, the number of recovered victims does not necessarily accurately reflect the magnitude of the problem. For instance, although it is known that hundreds of thousands of images of child pornography exist on the Internet (NCMEC, 2008), as of 2004 only 261 victims had been identified and removed from their abusive situation (from Interpol presentation by McCulloch, cited in Jones, 2005).

The Ages of Child Sex Trafficking Victims

Equally concerning are reports regarding the young ages of children being victimized in sex trafficking (Associated Press, 2009; Clawson, 2009; Farr, 2005; Gray, 2005; Taylor & Quayle, 2005). The number of pornographic images of children, even infants, being sexually battered available via the Internet is escalating exponentially (Cooper, 2005c; DeMarco, 2004; Hughes, 2002, 2005; Jones, 2005; Taylor & Quayle, 2005). For example, Taylor and Quayle (2005) compared the abusive images of children available in 1999 to those available in 2003. In 2003 the images were of high quality, with “new children, and contained a relatively high incidence of images of

toddlers and babies . . . more abusive, sometimes showing bondage and other sadistic qualities” (Taylor & Quayle, 2005, p. 270). Whereas prior to these technological advances, pornographic images sent via the Internet were limited to scanned copies of magazines or child pictures from medical reference books, the pornographic images of children currently available are high-quality digital moving images with clear audio recordings (Jones, 2005; Taylor & Quayle, 2005).

The falling age of child victims of pornography suggests an impending lowering of the age of prostituted minors. For once children or adolescents become victimized in one form of sexual exploitation, they tend to be multiply victimized in the various forms (Klain, Davies, & Hicks, 2001; Hughes, 2005; Taylor & Quayle, 2005). A research estimate of the average age of entry into prostitution for girls in the United States is 12 to 14 (Boxill & Richardson, 2007; Clawson, 2009; Estes & Weiner, 2001, Gray, 2005; Williams & Frederick, 2009). Boys have been found to enter at even younger ages than girls (Curtis, Terry, Dank, Dombrowski, & Khan, 2008; Estes and Weiner, 2001). In the most recently reported federal child prostitution sting, the youngest victim rescued was 10 years old (Stone, 2009).

Due to a fear of contracting AIDS or other sexually transmissible infections (STI), sex offenders or johns have increased the overall demand for “virgins” or prepubescent minors (Fang, 2005; Farr, 2005; Hanna, 2002; Hughes, 2005; Kreston, 2000, 2005). Those seeking to have sex with younger minors believe that due to their lack of prior sexual intercourse they will not yet be infected with STI (Farr, 2005; Fang, 2005). The reality is far different; family members or sex traffickers have most likely previously sexually abused the minors, even the youngest (Albanese, 2007). Due to the greater

likelihood of younger minors suffering anal or vaginal tearing during intercourse, plus possessing an underdeveloped genital tract with less efficient natural protectants against infections than adults, younger minors face greater risk for contracting and subsequently passing on STI (Farr, 2005; Leth, 2005; Kreston, 2001, 2005; Hughes, 2002).

In addition, buyers of sex with children will often pay more for sex without a condom and young victims lack the power or even awareness to demand protected or safe sex, increasing their risk for infection (Farley, 2004; Farr, 2005; Leech, 2002; Leth, 2005; Raymond, 2004; Raymond et al., 2010; Sheridan & VanPelt, 2005). Beyond this myth presuming a low risk of STI in younger minors, those who sexually abuse children advocate other myths or rationalizations that justify the sexual exploitation of young minors, including the fallacious notions that entrapped children are nothing more than chattel and entirely impervious to the abusive experience, that younger children will not remember the abuse, and that children take pleasure in the sexual experience (Cooper, 2005a; Farr, 2005).

Risk Factors for Victimization in Child Sex Trafficking

Despite the concentration of international policy and intense media attention on the topic of global sex trafficking in women and children (for review, see Farrell & Fahy, 2009), rigorous research on the topic is severely lacking (Bales, 2007; Goździak & Bump, 2008a; Goździak & Collett, 2005; Graycar & McCusker, 2007; Kelly, 2005; Lehti & Aromaa, 2007; Schloenhardt, Beirne, & Corsbie, 2009; Zhang, 2009). The prostitution of minors is considered to be the most understudied form of child sex trafficking (Williams & Frederick, 2009). The relative lack of research focused on this form of child sex trafficking is considered to be due to a number of factors: (1) the hidden nature of

the crime, (2) the intimidation and fear tactics used by sex traffickers that ensure the silence of the prostituted minors, and (3) the common entrapment in prostitution of marginalized youth who have not yet gained significant public concern (Williams & Frederick, 2009).

The few empirical studies that have investigated the risk factors for victimization by sex traffickers have found shared qualities in the psychosocial histories and environmental circumstances of both internationally and domestically trafficked minors (for reviews, see Clawson, 2009; Estes & Weiner, 2001, 2005; see also, Priebe & Suhr, 2005; Williams & Frederick, 2009). These commonalities include individual risk factors such as youthfulness, inadequate education, limited opportunities for employment, lack of family support, history of sexual abuse, and mental, emotional, or physical disabilities (Clawson, 2009). In a three-year study investigating the commercial sexual exploitation of children in the United States, Estes and Weiner (2001, 2005) reviewed risk markers such as family dysfunction, domestic violence, substance abuse and mental illness in family members, history of child physical or sexual abuse, previous sexual assault, being a runaway or throwaway youth, drug dependency, gang membership, immaturity, and poor sexual decision-making (see also, Clawson, 2009; Raphael, 2004).

In general, females have been found to be at higher risk for sex trafficking and are more likely than males to report trading sex to benefit a trafficker, pimp, boyfriend, or relative (Clawson, 2009; Curtis et al., 2008; Estes & Weiner, 2001, 2005; Saewyc, MacKay, Anderson, & Drozba, 2008). However, both male and female homeless youth are at risk for sexual exploitation (Estes & Weiner, 2001, 2005; Saewyc et al., 2008). Runaway, homeless boys who self-identify as gay, bisexual, and

transgender/transsexual reported high levels of sexual exploitation (Clawson, 2009; Curtis et al., 2008; Estes & Wiener, 2001, 2005).

No particular race or ethnicity has been found to be at greatest risk for entrapment in prostitution, although being a member of minority group has been found to increase risk in certain countries (Clawson, 2009). In the United States, African American minors are more likely to be arrested due to being prostituted than minors of other races who are being prostituted and have a more difficult time escaping (Clawson, 2009; Flowers, 2001). Being a member of a certain socioeconomic class does not seem to prevent a minor from becoming exploited in the illegal commercial sex industry, but poverty has been found to be a risk factor in a number of studies (for reviews, see Clawson, 2009; Estes & Weiner, 2001, 2005). Girls from lower socioeconomic status were noted as more susceptible to entrapment and considered less likely to be able to escape the exploitive situation (Lloyd, 2005).

Beyond poverty, other major community conditions that inflate minors' risk for entrapment into prostitution include residing in an urban environment characterized by high crime and elevated levels of police corruption (Clawson, 2009). Estes and Wiener (2001, 2005) also noted similar situational conditions as risk factors, including the existence of an adult prostitution market and the presence of large numbers of transient males (e.g., conventioners, tourists, truckers, or military personnel).

As previously mentioned, researchers have found that the majority of minors ensnared in prostitution reported a history of childhood sexual abuse or were abandoned by their families (Clawson, 2000; Estes & Weiner, 2001, 2005; Hanna, 2002; FACJJ, 2007; Farley, Lynne, & Cotton, 2005; Layden & Smith, 2005; Raphael, 2004; Rotheram-

Borus, Mahler, Koopman & Langabeer, 1996; Whitbeck, Hoyt, Yoder, Cauce, & Paradise, 2001). Researchers focused on the problem of child sex trafficking have noted consistent patterns in the sexual victimizations of minors, finding that the majority of child sex trafficking victims have experienced sexual victimizations that have escalated in severity (Estes & Weiner, 2001, 2005; Albanese, 2007). Albanese (2007) described the commonly reported steps within the escalation of victimization from childhood sexual abuse to child sex trafficking, initiating with sexual abuse by a family member to exploitation in pornography and ending with entrapment in prostitution.

Runaway, homeless, and sheltered youth have been found to be at high risk of entrapment in sex trafficking (for reviews, see Clawson, 2009; Estes & Weiner, 2001, 2005). Unlike the situation in less economically developed countries where minors are on the streets due to poverty, war, or parental death, U.S. minors primarily run away from home or are thrown out by their caregivers due to neglect, abuse, or domestic conflict (for review, see Baron, 2003; see also Cauce, Stewart, Whitbeck, Paradise, & Hoyt, 2006; Farrow, 2005; Kempf-Leonard & Johansson, 2007; Molnar, Shade, Kral, Booth & Watters, 1998; Vieth & Ragland, 2005; Yoder, Whitbeck, & Hoyt, 2001). Research conducted by Peled and Cohavi (2009) on the meaning of running away for U.S. girls found that girls who ran away perceived leaving home not as a choice, but as an inevitability. The primary reason given by girls for leaving was the failure of their significant family relationships, particularly with their mothers (Peled & Cohavi, 2009; see also, Clawson, 2009). The girls in the study felt that they had no alternative and described running away as “living suicide” (Peled & Cohavi, 2009, p. 739).

Studies focused on runaway and homeless youth have consistently gathered information on the level of abuse experienced by youth prior to running or being thrown out. Studies have found that 16%-81% of the youth reported child physical abuse and child sexual abuse was reported by 5%-50% (for reviews see Baron, 2003; Clawson, 2009; Tyler & Johnson, 2006a, 2006b). Over 50% of homeless U.S. youth report some form of child abuse and many report multiple types of abuse, multiple offenders, and repeated abuse (for reviews, see Baron, 2003; Clawson, 2009; Tyler & Johnson, 2006a; 2006b). Such youth, having experienced an upbringing characterized by neglect, and psychological, sexual, and physical abuse, are at high risk for further victimization and entrapment by traffickers (Arata, 2002; Clawson, 2009; Farley & Kelly, 2000; Farrow, 2005; Halcon & Lifson, 2004; Jankowski, Leitenberg, Henning, and Coffey, 2002; Roth & Newman, 1993; Saewyc & Edinburgh, 2010; Saewyc, et al., 2008; Scaer, 2001; Scott, Wolfe, & Wekerle, 2003; Tyler & Johnson, 2006a; Whitbeck et al., 2001).

Over the past two decades, numerous researchers have documented the percentage of runaways who are further victimized by commercial sexual exploitation as defined by the TVPA of 2000 (see Table 1). The terms used for commercial sexual exploitation are not identical in all 23 studies included in Table 1, but each term includes the concept of payment in money or goods for the sex act of a youth. As previously noted, buying the sexual services of a minor constitutes trafficking, and the buyer is considered guilty of trafficking when there is no third party or trafficker “pimp” profiting from the sex act (Adelson, 2008; U.S. Department of Justice [DOJ], n.d.). Thus, the commercial sexual activity that researchers have commonly termed survival sex or trading sex for money, shelter, food, or goods would be considered sex trafficking and

the buyer deemed a sex trafficker if the individual being paid for the sex act is under the age of 18 (Adelson, 2008).

Table 1. *Previous Studies on U.S. Youth Sexually Exploited while Homeless*

1 st Author (Date)	Location	Sample Size	Age	Research Findings*
Remafedi (1987)	Minneapolis, MN	29 gay homeless youth	15-19	17% were involved in transactional sex (exchange of sex for money or drugs)
Yates (1988)	Hollywood, CA	110 runaway youth	12-24	26% reported survival sex
Rotheram-Borus (1990)	New York, NY	59 homeless youth	12-18	15% engaged in transactional sex (exchange of sex for money/drugs)
Rotheram-Borus (1992)	New York, NY	206 homeless youth	11-18	13% of males & 7% of females exchanged sex for money or drugs
Greenblatt (1993)	Hollywood, CA	93 homeless youth	13-17	33% traded sex for money, food, drugs
Kipke (1995)	Los Angeles, CA	409 street youth	12-23	43% reported survival sex
Kipke (1997)	Hollywood, CA	732 homeless youth	12-23	46% reported survival sex & prostitution
Unger (1998)	Los Angeles & San Diego, CA	245 street youth	12-23	8% (12-15 years) & 13% (16-23 years) reported prostitution 1% reported pornography
Booth (1999)	Denver, CO	244 homeless youth	12-19	22% had engaged in survival sex
Clatts (1999)	New York, NY	929 homeless youth	12-23	25% reported prostitution 3% reported pornography

Table 1 – Continued

Ennett (1999)	Washington, DC	327 homeless youth	14-21	46.6% reported survival sex
Greene (1999)	U.S. National sample	1,159 homeless or sheltered youth	12-21	27.5% of street youth/9.5% of sheltered reported survival sex
Noel (2000)	Northwestern U.S. city	536 homeless youth	13-20	8.7% reported survival sex
De Rosa (2001)	Hollywood, CA	296 homeless youth	12-23	21.5% reported survival sex
Moon (2001)	San Francisco	204 homeless youth	14-21	12% reported survival sex
Tyler (2001)	Seattle, WA	372 homeless youth	13-21	11% reported survival sex
Wagner (2001)	Seattle, WA	289 homeless youth	13-22	41% reported survival sex or prostitution
Halcon (2004)	Minneapolis, MN	208 homeless youth	15-22	20% exchanged sex for money, drugs, or others needs
Milburn (2006)	Los Angeles, CA	618 homeless youth	12-20	6% reported engaging in sex work
Owen (2006)	Minnesota	151 homeless youth	11-21	12% of minors reported exchanging sex for food, etc.
Solorio (2006)	Los Angeles, CA	688 homeless youth	12-20	12% reported trading sex for money
Tyler (2007)	Midwestern U.S. city	428 homeless or sheltered youth	16-19	13% had traded sex for food, shelter, money or drugs
Saewyc (2010)	Minnesota	68 runaway girls	12-15	13.8% had been prostituted

Note: Terms for sexual exploitation are the terms used by the original researchers. *

Within this review of studies displayed in Table 1, a cluster of the studies reported that from one quarter to almost one half of youth were sexually exploited while homeless. The only study using nationally representative samples of U.S. homeless or sheltered youth reported that 27.5% of homeless youth and 9.5% of sheltered youth had engaged in survival sex or the exchange of sex for subsistence needs (Green, 1999, p. 1406). The frequently cited estimate from Estes and Wiener's (2001, 2005) report on commercial sexual exploitation of children in the U.S., which predicted that 10%-15% of U.S. "street" children are at risk for domestic commercial sex exploitation, seems to be validated by the majority of these studies.

Victim Initiation into Child Sex Trafficking in Prostitution

While abductions of U.S. minors for exploitation in prostitution have been documented (Wilson & Dalton, 2008), in the majority of observed cases sex traffickers have used manipulation to recruit and entrap disadvantaged, needy, and possibly drug-addicted minor victims (Albanese, 2007; Anderson & Michaelson, 2007; Kennedy, Klein, Bristowe, Cooper, & Yuille, 2007; Royal, 1998; Spidel, Greaves, Cooper, Hervé, Hare, & Yuille, 2007; Stone, 2009; Williams & Frederick, 2009; Williamson & Cluse-Tolar, 2002). Researchers have estimated that sex traffickers control from 50%-90% of the girls in prostitution in the United States (Albanese, 2007; Estes & Weiner, 2001, 2005; NCMEC, 2008). Sex traffickers, or pimps, are most commonly linked to younger girls and runaways who lack housing, food, and clothing (Clawson, 2009; Sheridan & VanPelt, 2005; Williamson & Cluse-Tolar, 2002; Vieth & Ragland, 2005). Emerging research on sex traffickers has suggested that traffickers employ recruiters to spy out needy youth or runaways by frequenting their typical or routine locations (Albanese, 2007; Anderson &

Michaelson, 2007; Gray, 2005; Vieth & Ragland, 2005). Once dependent on the sex traffickers, minors are coerced into prostitution⁴ (Albanese, 2007; Priebe & Suhr, 2005; Williams & Frederick, 2009).

Numerous researchers have noted the strong influence of peers in the process of initiation into commercial sexual exploitation (Curtis, et al., 2008; Tyler & Beal, 2010; Williams & Frederick, 2009). Homeless youth often band together and form a sort of social network, a kind of substitute family (Baron, 2003; Baron, Kennedy, & Forde, 2001; Farrow, 2005; Hagan & McCarthy, 1997). Through peer connections, minors are introduced to methods of surviving on the streets by more experienced runaways (Curtis, et al., 2008; Williams & Frederick, 2009). In some studies, homeless youth social networks have been found to have a protective effect, with those outside of the network engaging in higher levels of risky behaviors (Ennett, Bailey, & Federman, 1999).

Further research has revealed that prostituted and psychologically conditioned minors may help their traffickers acquire new recruits from among sheltered youth when they return or are returned by law enforcement or child protective services to unsecured locations, such as group homes or runaway shelters (Clawson & Grace, 2007; SHI, 2008). Such recruiting tactics are similar to the common practice employed by international traffickers who use victims as recruiters. Previously trafficked women will

⁴ Traffickers have been known to initiate the exploitation process by recording minors in pornography, thereby endeavoring to normalize participation in sexualized behaviors for new recruits (Cooper, 2005c; Klain et al., 2001; Raymond et al., 2010; Stark & Hodgson, 2003). The traffickers subsequently use the pornographic images as blackmail to shame and threaten minors with exposure. In this manner, traffickers induce minors' participation in further sex acts (Cooper, 2005c; Klain et al., 2001; Stark & Hodgson, 2003). Other studies based on personal accounts of exploitation revealed much more brutal initiation tactics, such as violent and prolonged episodes of rape and physical assault (Albanese, 2007; Farr, 2005; Vieth & Ragland, 2005; Wilson & Dalton, 2008).

be sent by traffickers back to their home village to recruit new victims with the promise of having their “debt” erased and being set free, upon successfully recruiting more victims (Farr, 2005; Sethi, 2010).

Some children who are exploited through sex trafficking never leave home, but are victimized and trafficked by their parents, siblings, or boyfriends (Albanese, 2007; Estes & Weiner, 2005; Raymond et al., 2010). When the origin of victimization is someone who is known and relied upon, a child’s trust is severely betrayed. Understandably, this type of betrayal results in greater psychological distress, as the exploiter fills the role of both protector and perpetrator (Finkelhor & Browne, 1985; Herman, 1992; Putnam, 2006; Scaer, 2001). These children are at high risk for exploitation over many years (Estes & Weiner, 2005). Highest risk for children in exploitive families occurs when there is no detection of the sexual exploitation by law enforcement or child protective services, if the family frequently moves to avoid detection, and when the family environment includes violence, substance abuse, serious mental illness, and sexual promiscuity (Estes & Weiner, 2005).

Consequences of Victimization in Child Sex Trafficking

The pervasive and lasting consequences suffered by minors as a result of being exploited in sex trafficking can best be categorized into physical injuries, psychological harm, and social impairments. Below, Table 2 lists the most commonly observed problems among child sex trafficking victims noted by various researchers, clinicians, and social service providers. Frequently observed medical problems include STI, unwanted and high-risk teen pregnancy, physical injuries from beatings and rapes, malnourishment, and drug-related complications (Clawson & Grace, 2007; Clawson,

Salomon, & Grace, 2008; Cooper, 2005c; Estes & Wiener, 2005; Fadel, 2005; Leth, 2005; Saewyc & Edinburgh, 2010; Vieth & Ragland, 2005).

Table 2. *Consequences* Commonly Observed in Victims of Child Sex Trafficking*

1 st Author (Date)	Physical Injuries	Psychological Harm	Social Impairments
Cooper (2005c)	STI including HIV, drug overdose & death, unwanted pregnancy, genital and bodily injuries	Dissociative disorders, PTSD, depression, low self-esteem	Behavioral problems, interpersonal problems
Estes (2005)	Long-term health problems and injuries, teen pregnancy, substance abuse	Long-term emotional injuries	Interpersonal difficulties, high likelihood of involvement in adult prostitution, and other involvement in delinquency and crime
Fadel (2005)	STI including HIV, hepatitis, unwanted pregnancies, pelvic inflammatory disease, infertility, malnourishment	PTSD, low self-esteem, shame	Lack of education, lack of employment skills, behavioral problems
Layden (2005)		Depression, anxiety, panic disorders, PTSD, eating disorders, substance abuse disorders, personality disorders	Interpersonal difficulties, lack of life skills (e.g., employment skills, problem-solving skills, parenting skills, communication skills)
Leth (2005)	Skin diseases, STI, health consequences due to teenage pregnancy, death, malnourishment, drug problems, general poor health	Mood disturbances, self-mutilation, suicidal behavior, feeling of inferiority, self-blame, guilt, aggressiveness, depression	Marginalization

Table 2 – Continued

Vieth (2005)	STI including HIV, drug addiction, death, malnourishment	Low self-esteem, self-destructive behaviors, self-mutilation, suicidal tendencies	Marginalization, criminal involvement
Clawson (2007)	Injuries from beatings and rapes, including broken bones and wounds, malnutrition, STI, infertility, unwanted pregnancy	Posttraumatic Stress disorder (PTSD), psychosomatic health complaints, drug addiction, shame and guilt, depression, anxiety, self-destructive behavior, suicidal ideation and attempts, trauma bonding to trafficker	Inability to trust, interpersonal difficulties, lack of life skills
Saewyc (2010)	STI, teen pregnancy	Depression, PTSD, self-harming behaviors, suicidal ideation and attempts, substance abuse	Low level of family or school support

Note: Determining if a condition is a consequence, correlate, or antecedent of child sex trafficking may not be clear due to prior childhood victimizations* (Cooper, 2005c).

The observed psychological harms include a lengthy list of mental health disorders, such as depression, anxiety, dissociative disorders, substance abuse, suicidal ideations and gestures, and posttraumatic stress disorder (PTSD) (Clawson & Grace, 2007; Cooper, 2005c; Fadel, 2005; Layden & Smith, 2005; Leth, 2005; Saewyc & Edinburgh, 2010; Vieth & Ragland, 2005). Notably, low self-esteem, guilt, and shame are often mentioned as emotional consequences (Clawson & Grace, 2007; Cooper, 2005c; Fadel, 2005; Leth, 2005; Saewyc & Edinburgh, 2010; Vieth & Ragland, 2005). Social impairments include interpersonal relationship and behavioral problems, lack of

life skills, and marginalization (Clawson & Grace, 2007; Cooper, 2005c; Estes & Wiener, 2005; Fadel, 2005, Layden & Smith, 2005; Leth, 2005; Saewyc & Edinburgh, 2010; Vieth & Ragland, 2005).

The Next Step: Focused Research

As evidenced by this review of the extant literature, primarily based on case study research, information regarding the recruitment of child sex trafficking victims, entrapment experiences, and common risk factors has been collected (Albanese, 2007; Clawson, 2009; Estes & Weiner, 2001, 2005; Goździak & Bump, 2008b; Kennedy et al., 2007; Priebe & Suhr, 2005; Williams & Frederick, 2009). Yet, the few empirical studies on human trafficking have generally been conducted without the use of valid sampling techniques or reliable methodology (Bales, 2007; Goździak & Bump, 2008a; Goździak & Collett, 2005; Graycar & McCusker, 2007; Kelly, 2005; Lehti & Aromaa, 2007; Musto, 2009; Tyldum, & Brunovskis, 2005; Williams & Frederick, 2009; Zhang, 2009).

Due to a lack of sufficient available and reliable data, researchers have not employed quantitative analytic strategies to investigate the problem of child sex trafficking (Musto, 2009; Zhang, 2009). As a result, information is sorely lacking regarding models of vulnerability or common pathways into child sex trafficking; most notable is the scant level of research directed at understanding minors' susceptibility to entrapment in prostitution (Williams & Frederick, 2009).

Researchers have noted that the process of entrapment in child sex trafficking may differ across the various forms of exploitation and across the societal settings or environmental conditions of the victims (Bales, 2007; Kelly, 2005; Williams & Frederick, 2009; Wilson & Dalton, 2008; Winterdyk & Reichel, 2010; Zhang, 2009). In other words,

the routes to victimization in international child sex trafficking may differ from the pathways commonly experienced by domestically trafficked victims (Wilson & Dalton, 2009; Zhang, 2009; see also, Wikström and Sampson, 2006). Therefore, it has been suggested that researchers may be most effective at finding functional solutions to the problem of child sex trafficking by purposefully focusing on particular forms of sex trafficking in combination with specific types of victims, thereby exposing common pathways followed by selected types of individuals into certain forms of exploitation.

Based on recommendations regarding the type of research strategies and methodologies deemed most appropriate, this study purposefully has concentrated on domestically trafficked girls involved in prostitution. The focus on domestically trafficked girls was chosen because such minors comprise the largest group of child sex trafficking victims in the United States (Clawson, 2009; Estes & Weiner, 2005). Investigating minors entrapped in prostitution was selected due to the relative scarcity of research focused on this particular form of child sex trafficking (Williams & Frederick, 2009).

Beyond an insufficiency of empirically-based research and the unavailability of systematically collected data, few theories have been proffered to advance the understanding of child sex trafficking in prostitution, such as predicting potential pathways or life trajectories. Absent a sound theoretical framework, research impotently depends on atheoretically selected observations or correlations in the data (Wikström, 2008) to explain child sex trafficking, limiting the progress of solution development. In light of the need for a sound theoretical foundation on which to build further understanding of child sex trafficking, the next chapter is focused on the theoretical

explanations of victimization that may assist in elucidating and explaining this often-overlooked crime against children.

Chapter 3

Current Status of Theoretical Models

The beginning of this chapter provides a brief overview of the current status of general theoretical explanations of child sex trafficking, identifying the vital and yet underdeveloped role of criminological theory. Next, studies investigating the intersection of offending and victimization are reviewed, endeavoring to determine whether current criminological theories predicting offending are sufficient to encompass and explain juvenile victimization, and if not, pinpoint their shortcomings. The latter half of the chapter reviews the empirically explored explanations of the heightened susceptibility to victimization of children and adolescents, highlighting how these explanations might apply to child sex trafficking victims. Finally, as numerous reports have indicated that the majority of minors entrapped in sex trafficking have experienced prior victimizations (Albanese, 2007; Estes & Weiner, 2001, 2005), the last section of the chapter outlines two major perspectives framing persistence in certain behaviors or the episodic repetition of specified events, including a discussion of their conceptual contribution to understanding repeat juvenile victimization.

Theoretical Explanations of Child Sex Trafficking

After a thorough review of research on human trafficking, Goździak and Bump (2008a) concluded, there has been “no attempt to develop a new theoretical framework in which to comprehensively analyze the phenomenon” (p. 9). This review of the

existing literature concluded that “poverty and the aspiration for a better way of life are by far the most discussed ‘push factors’ and principal reasons for explaining why women and, in particular, children are at risk for trafficking” (p. 9).

Beyond acknowledging poverty as a universal push factor, feminist theories have offered additional and reasoned explanations for the sex trafficking of women and girls, arguing that patriarchal gender arrangements prominent in many cultures support the victimization of girls and women (Farr, 2005; Goździak & Bump, 2008a; Hotaling, Miller, & Trudeau, 2006; Jeffreys, 2009 2010; Morash, 2006; Raymond et al., 2010). For instance, the devaluation of girls as economic burdens may lead to their abandonment by their caregivers, even the selling of girls to traffickers. Also, severely limited availability of legitimate employment opportunities for females may force girls and women into sexually exploitive relationships, as such arrangements may provide the only viable option for survival or escape from intolerable conditions (Clawson, 2009; Farr, 2005; Morash, 2006).

Feminist theories have been particularly attentive to the global industrialization of prostitution and the sex trade that has normalized the use of the bodies of girls and young women to generate enormous profits, with the sex trade becoming embedded within the mainstream corporate business sphere in most countries around the world (Jeffreys, 2009). The globalization of the sex industry along with the ease of air travel has facilitated international sex trafficking as well as other forms of forced commercial sexual exploitation (Jeffreys, 2009). These changes in the scale and scope of the international sex trade has produced a new form of sexual colonization by sanctioning the transference of women and girls’ severe inequality “beyond national boundaries as

the women of poor countries can be sexually bought by men from rich countries” (Jeffreys, 2009, p. 6).

Such explanations of victimization in sex trafficking based in feminist theory do not fully account for the sex trafficking of boys (Dennis, 2008; Saewyc et al., 2008; Sánchez Taylor, 2001, 2006). Yet, as previously noted, due to the varied nature of child sex trafficking, distinct and divergent explanations may be needed to account for the different types of victims. Therefore, pervasive inequities between genders due to the devaluing of girls and women may be a generative source of the disproportionately high rate of entrapment in child sex trafficking experienced by girls in comparison to boys⁵ (Clawson, 2009; Jeffreys, 2009, 2010).

Arguably, the crime of child sex trafficking fits best within the traditional domain of the field of criminology, as it involves human actors behaving in violation of social norms, resulting in victimizations that engage a comprehensive set of criminal justice responses: police, courts, other agencies of formal social control designated to establish justice and mete out punishments (Cooper, 2005b; Friesendorf, 2010; Kreston, 2005; Musto, 2009; Wilson & Dalton, 2008; Finckenauer & Schrock, 2003; Lebov, 2010; Zhang, 2009). However, the field of criminology has yet to fully explore or attempt to explain this crime due its transnational features and because many of the contributory behaviors that facilitate child sex trafficking do not map neatly onto conventional crime categories (Graycar & McCusker, 2007).

⁵ Global estimates suggest 98% of all victims of forced commercial sexual exploitation are female, with 40-50% estimated to be minors (ILO, 2005). The ILO defines forced labor as labor that is exacted “under the menace of a penalty” and involuntarily without the consent of the worker (ILO, 2005, p. 6).

Nevertheless, the remedy to the lack of theoretical models explaining child sex trafficking may exist within the field of criminology. The premise of this study is that criminological theories will render a more complete elucidation of victim susceptibility and the life adversities that place certain minors, specifically certain U.S. girls, on a high-risk pathway toward entrapment in child sex trafficking, and thereby possess the potential for illuminating sorely needed solutions.

Theories of Criminology Applied to Victimization

As the primary purpose of the current study is to obtain a greater understanding of child victims of sex trafficking, rather than sex traffickers, it is relevant and crucial to consider whether mainstream criminological theories can provide a suitable theoretical framework for such an inquiry. As the field of criminology is relatively deficient of theories focusing solely on victimization, and even fewer theories are dedicated to explicating the problem of child and adolescent victimization (Finkelhor, 2007; Lauritsen & Laub, 2007), criminological theories purposed on explaining delinquency and criminality may be required to explain victimization in child sex trafficking in prostitution.

Beyond the fact that child sex trafficking is a crime and most criminological theories are considered generally applicable across various forms of crime, the usefulness of criminological theories for explaining victimization in child sex trafficking seems fitting and appropriate for several other reasons. Until recently, being prostituted as a minor was viewed as a form of juvenile delinquency. Fuller comprehension of this criminal phenomenon, along with landmark Federal legislation regarding human trafficking such as the passing of the Trafficking Victims Protection Act in 2000, resulted in a recent paradigm shift regarding the culpability and legal status of prostituted minors.

Prostituted minors are no longer viewed as delinquents, but instead they are now considered by many to be victims of criminal exploitation. Considering this history, until very recently current criminological theories had been regarded as sufficient to explain child sex trafficking in prostitution as it was viewed as a form of delinquency. Thus, these theories are likely to continue to have functional application to this problem regardless of the fact that the activity is now considered to be a form of victimization. Moreover, many have argued that some theories useful for explaining crime and criminality should also be effective at explaining victims and victimization; and in fact, some suggest that criminality cannot be fully understood in isolation from victimization and vice versa (Lauritsen & Laub, 2007; Lauritsen, Sampson, & Laub, 1991; Ousey, Wilcox, & Brummel, 2008; Schreck, 1999; Schreck, Stewart, & Osgood, 2008).

In a quest to understand crime victims and offenders by investigating the overlap and divergence of the two groups, recent studies have investigated patterns in the risk factors of offenders and victims (Baron, 2003; Chen, 2008; Cuevas, Finkelhor, Turner, and Ormond, 2007; Hay & Evans, 2006; Holtfreter, Reisig, Piquero, & Piquero, 2010; Katz, 2000; Manasse & Ganem, 2009; Tyler & Johnson, 2006a, 2006b; Schreck et al., 2008). For example, Cuevas et al. (2007) endeavored to identify a typology of juvenile delinquent-victims, seeking to understand pathways and interrelations between delinquency and victimization. Using research-based grouping criteria, these researchers identified a typology of delinquent-victims with three subtypes, representing 23% of the youth in their nationally representative sample. Challenging the common assumption that juvenile delinquents and juvenile victims are largely overlapping populations (Bender, in press; Lauritsen & Laub, 2007), the findings from this study indicated that fewer youth could be classified as both delinquent and victim in

comparison to the number of youth who could be classified as either one or the other, with little or no overlap. These findings also indicated that delinquency is more likely to follow victimization, rather than victimization occurring as a consequence of delinquency (see also, Feiring, Miller-Johnson, & Cleland, 2007; Hollist, Hughes, & Schaible, 2009; Hay & Evans, 2006; Lansford et al., 2007; Lo, Kim, & Church, 2008; Katz, 2000; Manasse & Ganem, 2009; Mersky & Reynolds, 2007; Tyler & Johnson, 2006a, 2006b). Several studies, focused on the directionality of the correlation between victimization and offending, found that victimization was an antecedent of delinquency, with the relationship mediated by depression or anger (Hay & Evans, 2006; Manasse & Ganem, 2009). However, support for converse directionality, from delinquency to victimization, has also been found (Baron, 2003; Chen, 2008).

A study by Schreck et al. (2008) strove to isolate differences in the propensity for involvement in violent offending versus susceptibility to victimization by violent crime. Overall, these researchers found that meaningful differences exist between individuals' propensity toward offending versus susceptibility to victimization. Moreover, they found that once a particular pathway, either of victimization or offending, was triggered, the specified roles (i.e., victim or offender) remained consistent across time. The majority of risk factors included in this study were able to predict the likelihood of involvement in a violent incident, but these factors were not able to differentiate the specific role taken within the criminal event. Only aging and getting drunk were found to influence the shifting from one tendency to another, indicating that among the varied risk factors included in the study (e.g., gender, race, poverty, school commitment, parental attachment, emotional distress, peer deviance), getting older and frequently getting drunk were the only predictors of role differentiation across time. This study suggests

that although victims and offenders share common risk markers that propel them toward involvement in a criminal event, hence explaining the commonly observed correlation between offending and victimization (for reviews, see Bender, in press; Lauritsen & Laub, 2007), there may also exist different factors or mechanisms that determine whether an individual begins and persists in the role of victim or offender. While commonalities in risk factors of victims and offenders have been documented thereby indicating that theories of criminality may also elucidate causes of victimization, sufficient theory modification based on the pivotal component of the specified role taken in the criminal event, i.e., perpetrator or victim, would seem to be essential.

As noted by Farrington (2000), the inherent problem in using the risk factor paradigm in the study of crime (or victimization) is the difficulty in determining “which risk factors are causes and which are merely markers or correlated with causes” (p. 7). These research findings regarding the association of offending and victimization imply that similar risk factors are affecting both initiation and persistence in offending and victimization; yet, differentiating which essential and enduring role is taken may not be possible when research attempts to form depictions of victims and offenders by using the limited lens of the risk factor paradigm. Working from the premise that risk factors may only be revealing spurious correlates of causes (Farrington, 2000), explicating mechanisms by which risk markers are bringing about certain outcomes supported by sound theoretical framework becomes of paramount importance (Pawson & Tilley, 1997; Wikström and Sampson, 2006; Wikström, 2008). However, only a scant amount of research has drawn upon criminological theory to build an understanding of the contexts and mechanisms producing the observed, elevated levels of victimization experienced by minors (Baum, 2005), especially when compared to the amount of research and

theory invested in understanding the problem of juvenile delinquency (Finkelhor, 2007; Lauritsen & Laub, 2007; Macmillan, 2001; Ousey et al., 2008).

Theories of Juvenile Victimization and Revictimization

The behavioral scientists and criminological researchers investigating the heightened level of vulnerability and susceptibility to victimization experienced by children and adolescents initially focused their research efforts on exposing the highly detrimental and lasting effects of victimization during childhood and adolescence (for review, see Arata, Langhinrichsen-Rohling, Bowers, O'Brien, 2007; see also, Briere & Runtz, 1993; Fagan, 2005; Finkelhor, 2007; Ford, Stockton, Kaltman, & Green, 2006; Herman, 1992; Ireland, Smith & Thornberry, 2002; Kaukinen & Demaris, 2005; Macmillan, 2001; Putnam, 2006; Scaer, 2001; Solomon & Heide, 1999). Similar to reports regarding the consequences of entrapment in child sex trafficking, the detrimental effects of childhood victimization result in a broad array of consequences, impairing victims physically, psychologically, and socially (for reviews see Arata et al., 2007; Macmillan, 2001; see also Robst, 2008). In spite of conclusive findings validating the critical consequences of child maltreatment and victimization due to the pervasive impairments of essential developmental processes, the study of the victimization of minors has remained sorely underdeveloped and neglected (Finkelhor, 2007; Macmillan, 2001). Theories have not been focused on illuminating why particular minors are victimized more than others, neither identifying the buffering effects of protective factors, nor detecting the interactive effects or cumulative costs of multiple risk markers (Finkelhor, 2007; Macmillan, 2001; Schreck & Fisher, 2004).

The majority of previous criminological research on juvenile victimization has focused on testing the veracity of concepts based in the routine activity theory of victimization, primarily investigating whether increased exposure to crime, resultant of youth engaging in risky behaviors with delinquent peers (i.e., partying, drinking, staying out late, gang membership, running away, homelessness) may result in higher rates of victimization (for reviews, see Baron, 2003; Finkelhor, 2007; Lauritsen & Laub, 2007; Schreck et al., 2008; see also, Chen, 2009; DeLisi, Barnes, Beaver, & Gibson, 2009; Higgins, Jennings, Tewksbury, & Gibson, 2009; Taylor, Freng, Esbensen, & Peterson, 2008; Wittebrood & Nieuwebeerta, 2000). Classified as a criminal opportunity theory, routine activity theory places an importance on changing social contexts in explaining the opportunity for crime (Cohen & Felson, 1979, 2006). Routine activity theory postulates that opportunity for crime by a *motivated offender* increases due to elevated *target suitability* and an *absence of capable guardianship*. Cohen and Felson (1979, p. 589) emphasized the importance of control, implying that the loosening of control over the opportunity for the convergence of a motivated offender and a suitable target without capable guardians will increase the likelihood that violations will occur. Strongly analogous to concepts postulated by routine activity theory, researchers have also applied control theories to victimization, seeking to explain victimization based on an absence of social control, such as poor parental supervision or a deficiency of collective safeguarding by delinquent peers (Chen, 2009; Lauritsen & Laub, 2007; Piquero, MacDonald, Dobrin, Daigle, & Cullen, 2005; Schreck, 1999; Schreck et al., 2006; Schreck et al., 2008; Stewart, Elifson, & Sterk, 2004; Vermeersch, T'Sjoen, Kaufman, & Vincke, 2007). The lack of capable guardianship, in the form of social controls, has been

empirically supported as a significant issue when addressing juvenile victimization (Chen, 2009; DeLisi et al., 2009; Lauritsen & Laub, 2007; Schreck et al., 2008).

Suggesting essential modification of routine activity or lifestyle theories when applied to youth, Finkelhor (2007) articulated that the risk-inflating dynamics embedded in routine activity theory should be adapted and considered as environmental conditions rather than problems in the lifestyle choices or routine activities of minors. For example, a child may be at risk for victimization due to caregiver neglect or poor supervision, conditions that have been found to often serve as prerequisites to child victimization (for review, see Schreck et al., 2008). The presence of such risk-inflating conditions may be affecting the likelihood of victimization, rather than risky lifestyle choices or routine activities of the minor.

The majority of minors have no control over, nor the opportunity to change their residence, family members, or neighborhood peers; their school placement or schoolmates; their place of employment or coworkers; or their routes or modes of transportation (Agnew, 1985). All of these noted settings are considered possible sources of victimization risk according to routine activity theory (Cohen & Felson, 1979, 2006; Felson, 2001, 2002; Karmen, 2010; Menard & Huizinga, 2001). The inherent characteristics common to minors related to their age and legal status, such as reliance and dependency upon adults for basic necessities, social and psychological immaturity, even possessing a smaller physical stature, are essential factors to be considered when modifying or developing an inclusive explanation of juvenile victimization (Finkelhor, 2007; Steinberg & Scott, 2003).

Beyond specifics regarding the pervasive and lasting detrimental effects of childhood victimizations (for reviews, see Arata et al., 2007; Macmillan, 2001), an additional consistent finding across studies of juvenile victimization is that the majority of victimized youth are multiply and repeatedly victimized (Arata et al., 2007; Barnes, Noll, Putnam, & Trickett, 2009; Classen, Paresh, & Aggarwal, 2005; Finkelhor, Ormrod, Turner, & Hamby, 2005; Menard & Huizinga, 2001), indicating a strong and positive link between past and future victimization. For instance, based on self-reported incidents of child maltreatment, one study found that less than five percent of respondents reported a single form of abuse occurring in isolation from all other types (Ney, Fung & Wickett, 1994). Researchers have confirmed that varied forms of child and adolescent victimizations often occur in tandem (Arata et al., 2007). Links have been observed between neglect and sexual abuse; neglect and physical abuse; physical, sexual, and psychological abuse; child maltreatment and sexual exploitation or assault; domestic violence and child abuse; and child physical abuse and dating violence (Arata et al., 2007; Classen et al., 2005; Estes & Weiner, 2005; Fang & Corso, 2007; Herrenkohl, Sousa, Tajima, Herrenkohl, & Moylan, 2008; Macmillan, 2001).

Prompted by such empirical findings regarding the high rate of revictimization among minors, numerous researchers and theorists have proposed that perhaps juvenile victimizations should not be regarded as isolated incidents but rather as an evolving state or developing condition, in which victimized minors do not experience only one traumatic incident but rather endure a series of victimizations (Finkelhor et al., 2005, p. 20; Perry, Hodges, & Egan, 2001; Ousey et al., 2008). Finkelhor, Ormond, and Turner (2007) suggested that the observed clustering of juvenile victimizations may be a result of the “contagion from one form of victimization to another” (p. 150), implying that

there may be a snowballing effect of victimizations, with each escalating the risk for future victimizations. Similarly, Schneider (2001) reported that the victimization risk increases with each victimization incident and multiple victimizations occurring within a short period of time is common.

Certain victimizations, such as child maltreatment (e.g., neglect, psychological, sexual, or physical abuse) may function as initiation or gateway victimizations due to their traumatic impact, breaching natural childhood protectorates and opening the way to future and possibly more severe types of victimization (Finkelhor et al., 2007, p. 162). For example, it has been clinically observed and empirically validated that child maltreatment and sexual victimization produce an acute lack of self-protection capabilities, as victims no longer perceive that they have options, overlook warning signs of impending danger, and thereby become highly vulnerable to revictimization (Herman, 1992; Messman-Moore & Brown, 2006; Seligman, 1975; Simons & Whitbeck, 1991). Such deficits in self-protective reactions may not be solely psychological, but instead due to neurobiological damage resulting from prior abuse (De Bellis, 2001; Heide & Solomon, 2006; Putnam, 2006; Scaer, 2001). The noted similarity in patterns of revictimization across the majority of child sex trafficking victims further substantiates this concept of victimization of minors as an intensifying condition (Albanese, 2007; Estes & Weiner, 2001, 2005; Simons & Whitbeck, 1991; Williams and Frederick, 2009).

Although the strong association between past and future victimization has been observed, the primary mechanisms, whether biological, psychological, social, ecological, or behavioral, that elevate risk for repeat victimization have not yet been fully identified (for reviews, see Arata, 2002; Barnes et al., 2009; Classen et al., 2005; Finkelhor, 2007;

Fisher, Daigle, & Cullen, 2009; Messman-Moore & Long, 2003; Ousey et al, 2008). Previous victimization is not an infallible predictor of future victimization, as not every victimized child suffers further victimization. As converging and diverging pathways into and out of victimization have been observed, identifying common pathways could illuminate the protective and promotive factors that influence repeat victimization. Clarifying the contributory mechanisms that drive an escalation in victimization, as has been observed in minor victims of sex trafficking (Albanese, 2007; Estes & Weiner, 2001, 2005), could assist in demystifying the processes by which many become entrapped in a perpetuating cycle of victimization.

Theories of Population Heterogeneity and State Dependence

When addressing persistence in offending, criminologists have drawn upon two distinct, yet possibly compatible, contributory processes in explaining the continuation of various kinds of behaviors: state dependence and population heterogeneity (Ezell & Cohen, 2005; Heckman, 1981, 2000; Nagin & Paternoster, 1991, 2000; Savage, 2009). As these processes have been used to explain the continuation of a varied set of behaviors or specified events (e.g., episodic poverty, accidents, unemployment), they would seem to be beneficial in explaining not only persistent offending, but also repeat victimization (Nagin & Paternoster, 1991; Ousey et al., 2008).

A helpful analogical portrayal of the mechanics of these two processes, featuring the possession of red and blue balls, was given by Heckman (1981, 2000) and further developed and applied to criminal propensity by Nagin and Paternoster (1991, 2000). The red balls represent propensity for choosing certain behaviors or experiencing specified events such as unemployment, victimization, or accidents, and the blue balls

reflect prosocial or protective qualities. Reflecting the population heterogeneity process, red and blue balls are distributed inequitably among individuals in the population. The greater the proportion of red balls that one possesses, the greater the chance is that they will choose a certain behavior or experience a specified event. Each time a red or blue ball is chosen or experienced, it is then duly replaced. Each individual maintains his/her initial proportion of red balls, so the propensity for certain behaviors or experiencing specified events remains stable over time. Conversely, illustrating state dependence, red and blue balls are initially distributed equally among individuals, resulting in each individual having the same initial propensity for choosing certain behaviors or experiencing specified events. In this scenario, through the utilization of red balls a person accumulates more red balls. According to Heckman (2000), "if a person draws a red ball, and experiences the event, additional new red balls are added to his urn. Subsequent outcomes are affected by previous outcomes because the choice set for subsequent trials is altered as a consequence of experiencing the event" (p. 46). This represents the process by which propensity for crime (or victimization) would intensify or strengthen via the process of state dependence. A third, mixed option is also imaginable, in which the initial distribution of red and blue balls is varied within the population, and individuals accrue red or blue balls at varying rates due to prior experiences.

Traditionally, the prominent criminological theories had been built upon the premise of population heterogeneity, focusing primarily on between-individual differences (Farrington, 2008). Such theories advocated the existence of a causal trait (e.g., impulsivity, psychopathy, criminal propensity, limited cognitive ability) in certain individuals that affects their probability of committing or refraining from crime throughout

their lifetime (Bushway, Brame, & Paternoster, 1999; Farrington, 2008; Nagin & Paternoster, 1991, 2000; Paternoster, Dean, Piquero, Mazerolle, & Brame, 1997; Piquero, Farrington & Blumstein, 2003; Savage, 2009). Similar to features typically associated with developmental theories of crime, most proponents of crime propensity or trait-based theories note that childhood familial environments characterized by impaired attachment, harsh punishment, chaotic family upbringing, and/or parental conflict are sources of these traits (Agnew, 2004; Caspi, Lyman, Moffitt, & Silva, 1994; Gottfredson and Hirschi, 1990; Moffitt, 1993; Savage, 2009).

According to Nagin and Paternoster (1991, 2000), the prominent theories in criminology that are clearly congruent with this position are control theories (Gottfredson & Hirschi, 1990), theories of personality development (Caspi et al., 1994), and genetic, biological, or individual constitution theories (Wilson & Herrnstein, 1985). Several of these theories, particularly control theories, purport to not only offer an explanation for offending and persistent offending but also for victimization, the association of offending with victimization, and even revictimization; and control theories have been so tested in criminological research (Campbell Augustine, Wilcox, Ousey, & Clayton, 2002; Chen, 2009; Holtfreter et al., 2010; Lauritsen & Laub, 2007; Piquero et al., 2005; Schreck, 1999; Schreck et al., 2006; Schreck et al., 2008; Schreck, Wright, & Miller, 2002; Stewart et al., 2004).

The basic assumptions of control theories in criminology are: (1) that all individuals pursue pleasure and avoid pain, providing a constant motivation for crime; (2) without the presence of restraining factors individuals will commit offending behaviors; and (3) attachments to others or social bonds are the source of restraining factors

(Gottfredson, 2006). Control theories differ according to the emphasis placed on self-control and whether social controls are conceived as functioning dependently or independently of self-control (Gottfredson, 2006). Gottfredson and Hirschi's self-control theory has been empirically supported through numerous studies across ages, groups, cultures, crimes, behaviors related to crime, and time periods (Gottfredson, 2006; Pratt, 2009).

According to self-control theory, the formation of the stable trait of self-control occurs via parent-child socialization or the reciprocal bonding process from birth to age eight (Gottfredson & Hirschi, 1990; Gottfredson, 2007). From these early attachments or social bonds, an individual gains self-control or "the tendency to delay short-term gain for long-term personal and collective interests" (Gottfredson, 2007, p. 537). Self-control theory asserts that delinquency and victimization are the result of a propensity of both victims and offenders to act impulsively and ignore long-term consequences (Gottfredson & Hirschi, 1990; Schreck et al., 2008). Impulsivity can result from ineffective parenting, which fails to shape a child's capacity for self-control (Gottfredson & Hirschi, 1990). This deficiency in self-control can linger even into adulthood, leaving the individual with a lasting inability to control impulsivity. Accordingly, the observed correlation between past and future victimization, past and future offending, or even the frequently observed correlation between victimization and offending (for review, see Chen, 2009; Lauritsen & Laub, 2007) is not causal, but rather spurious (Paternoster et al., 1997; Sampson & Laub, 1992).

A number of objections can be raised to applying the notion of population heterogeneity to crime victims, such as the concern of victim blaming or inappropriately

reassigning the origins of an action to the human agency of the recipient of the action rather than the perpetrator (Boney-McCoy & Finkelhor, 1995; Hyman & Steward, 2004; Lauritsen & Laub, 2007). For example, Gottfredson and Hirschi argue that between-offender differences in the quantity of crime committed exist, but there are not qualitatively distinct types of offenders; all offenders can be placed on one continuum of criminal propensity (Piquero et al., 2003). Therefore, explanations of victimization based on the population heterogeneity paradigm could result in viewing all victims the same, i.e., as possessing a fixed and causal trait of *victim-propensity* (Beaver, Boutwell, Barnes & Cooper, 2009; Lauritsen & Laub, 2007), and subsequently attributing the severity and frequency of victimizations experienced to the victims' measure of this flawed trait. As noted by Lauritsen and Laub (2007), population heterogeneity may not solely result from between-individual differences, but also could reflect shared social conditions that remain stable in an individual's life across time (see also, Menard & Huizinga, 2001; Miller, 2008a, 2008b; Ousey et al., 2008; Wikström, 2008).

Viewing the inquiry from an orthogonal perspective, studies focusing on hunting patterns of sex offenders have noted that the immediate social and economic conditions of victims such as being on the street, obviously needy, and with apparent vulnerability are preeminent in offenders' selection of victims (Beauregard, Proulx, & Rossmo, 2007; see also, Stevens, 1998). This is congruent with the limited information gathered on strategies used by sex traffickers, which highlights their tendency to entrap younger, disadvantaged, and needy runaway girls (Clawson, 2009; Sheridan & VanPelt, 2005; Williamson & Cluse-Tolar, 2002; Vieth & Ragland, 2005). Moreover, life course criminologists criticize theories based on population heterogeneity for failing to address within-individual changes, neglecting to investigate the effect of childhood and

adolescent environments and behaviors later in life, or to account for the modifying effects of adult social bonding and transitions (Farrington, 2008; Sampson & Laub, 1992, 1993).

Challenging the assumptions of population heterogeneity, the state dependence explanation for persistence in behaviors such as crime contends that something inherent in committing crime or experiencing the event critically changes an individual and their life circumstances to such a degree that it alters their likelihood of future offending or of reexperiencing a future occurrence of a comparable event (Nagin & Paternoster, 1991, 2000; Piquero et al., 2003). In application to criminal behavior, the state dependency paradigm predicts that crime will beget more crime, either through producing beneficial rewards that pull or entice an individual to commit more crime or through spawning a cascading collection of consequences that pushes a person further into a criminal lifestyle (Nagin & Paternoster, 1991, 2000; Piquero et al., 2003; Paternoster et al., 1997). Numerous criminologists have conceptualized the process of state dependence. For instance, Sampson and Laub (2004, p. 133) labeled this adverse compounding of criminal behavior and harsh responses “cumulative disadvantage.”

According to Nagin and Paternoster (1991, 2000), the prominent theories in criminology that are most congruent with this position are labeling theory (Becker, 1963; Lemert, 1972), Thornberry’s (1987) interactional theory of crime, social learning theory (Akers, 1985), and general strain theory (Agnew, 1992). In addressing the issue of persistent offending, Agnew predicted interactive and potentiating effects between offending and strain, stating “delinquency has consequences which contribute to further delinquency, setting an amplifying loop in motion” (Agnew, 2004, p. 112). As an

example of the state dependence process affecting persistent offending viewed through the theoretical lens of general strain theory, Agnew (2004, 2005a, 2006a) proposed that family strains such as child abuse or neglect could lead a child to run away, become a gang member, or use illegal substances in hopes of resolving intolerable strain. Repetition of offending can be anticipated in this example; a criminal act (i.e., illegal drug use) effectively relieved intolerable strain, reinforcing the likelihood that drug use will become the child's preferred choice of escape. Thus, strain in the child's life results in delinquent behavior; the perceived beneficial effect of that behavior (and ultimately drug dependence) hastens the child's choice of further crime. Other more distal factors may also emerge as risk markers due to drug use, such as increased contact with delinquent peers, involvement in the juvenile justice system, or financial demands to pay for drugs (Agnew, 2004; Slocum, Simpson, & Smith, 2005).

Further consequences of delinquency, such as rejection by parents, teachers, neighbors, and/or conventional peers, were theorized to foster strain, weaken social control, and escalate associations with delinquent peers (Agnew, 2004, 2007). Additionally, punishment resulting from delinquency, especially if perceived as undeserved or excessive, was assumed to result in anger and frustration, thereby promoting further delinquency (Agnew, 2000; Hagan & Foster, 2003). Kim, Conger, Elder, and Lorenz (2003) conducted one of the rare, longitudinal studies investigating the connection between strain and persistent offending and concluded that stressful life events and delinquency have a reciprocal relationship. Also, Hagan and Foster (2003) investigated delinquency as a stressor and found that the consequential negative emotions of anger and depression led to subsequent drinking problems in males. Accordingly, these studies found support for the proposition that delinquency can be

both consequence and source of strain, with the resulting adversity due to offending mediating the association between past and future offending (Hagan & Foster, 2003; Kim et al., 2003). Thus, strain and offending exacerbate each other in a toxic cycle, as offending is perpetuated and powered by the strain it produces. This strain-offending-strain loop or process of persistent offending may mirror the process underlying the observed elevated risk of revictimization experienced by victimized children and adolescents, including child sex trafficking victims.

However debatable the association of victimization with population heterogeneity may be (Lauritsen & Laub, 2007), few would object to the idea that due to the potentiating effects of prior victimizations, a state of heightened vulnerability to further victimization may result. As previously noted, numerous theorists and researchers have proffered the notion that juvenile repeat victimization may be the result of a condition or state, created by the effects of prior victimization or child maltreatment (Finkelhor et al., 2005; Perry et al., 2001). When describing the revictimization of children or adolescents, developmentally-corrosive cumulative disadvantage based in childhood adversity and abuse has been empirically observed (Ireland et al., 2002; Macmillan, 2001; Putnam, 2006; Scaer, 2001; Solomon & Heide, 1999).

The limited amount of criminological research that has tested the influence of population heterogeneity and state dependence in explaining the association between juvenile offending and victimization has found that both processes affect the association (for reviews, see Baron, 2003, Chen, 2008; Lauritsen & Laub, 2007; see also Katz, 2000; Macmillan, 2001; Tyler & Johnson, 2006a, 2006b). These results are similar to the findings regarding the effect of state dependence and population heterogeneity on

persistence in offending, which also suggest that both processes are influential (for review, see Nagin & Paternoster, 2000; see also, Ezell & Cohen, 2005; Mason & Windle, 2002; Paternoster et al., 1997; Piquero et al., 2003). However, even less is known about the processes affecting repeat victimization (Fisher et al., 2009; Finkelhor, 2007; Lauritsen & Laub, 2007; Ousey et al., 2008). Findings by Ousey et al. (2008) from a study on repeat victimization during adolescence suggest that victimization alters social bonds and peer associations thereby increasing risk of further victimization. Yet these researchers acknowledged that “the mechanisms underlying the positive state dependence effect” of victimization is an area of research that is severely underdeveloped (Ousey et al., 2008). Similarly, after reviewing research on victimization Lauritsen and Laub (2007) concluded, “much more needs to be learned about the specific factors underlying state-dependent processes of victimization” (p. 63).

Based on the appeal for further investigation into state-dependent processes underlying victimization (Lauritsen & Laub, 2007; Ousey et al., 2008) and the prevailing amount of research validating the common experience of revictimization by minors (Classen et al., 2005; Finkelhor et al., 2005; Menard & Huizinga, 2001), two criminological theories were examined by this study, endeavoring to understand vulnerability to victimization in child sex trafficking. Both theories, gendered pathways theory and Agnew’s (1992) general strain theory, are congruent with the state dependence paradigm for explaining continuation of behaviors or specified events (Nagin & Paternoster, 1991, 2000) and therefore they are appraised in this study for relevance and application to the escalation in victimization often observed in the histories of child sex trafficking victims (Albanese, 2007; Estes & Weiner, 2001, 2005). While these two criminological theories have been developed primarily to explain

delinquency and offending, their key theoretical propositions that are reviewed in the next chapter allow for purposeful adaptation and application to victims and victimization.

As a life-course feminist theory applied to criminal offending, gendered pathways theory supports the perspective of feminist theory regarding the detrimental devaluing of women and girls due to patriarchal beliefs and practices (Chesney-Lind & Paska, 2004; Miller & Mullins, 2006, 2009; Steffensmeier & Allan, 1996), commonly theorized to be a generative force escalating vulnerability in women and girls to sex trafficking (Clawson, 2009; Farr, 2005; Jeffreys, 2009, 2010; Morash, 2006). Particularly attuned to the disproportionate rate of sexual abuse experienced by girls, gendered pathways theory predicts, “young women who run away from home to escape abuse inadvertently enter into a more dangerous and abusive situation on the streets” (Miller & Mullins, 2009, p. 38). Focusing on how gendered social scripts interact with child maltreatment, gendered pathways theory predicts a pathway leading from childhood victimization to successive and escalating victimizations (Giordano, Deines, & Cernkovich, 2006; Miller & Mullins, 2006, 2009).

General strain theory describes underlying state-dependence dynamics that may foster repeat victimization (Agnew, 2004, 2007). Strain and offending have been found to sustain one another, with offending becoming progressively more likely due to the strain it generates (Hagan & Foster, 2003; Kim et al., 2003). Perhaps, this cyclical strain-offending process found to result in persistent offending is indicative of the process underlying the observed elevated risk of revictimization experienced by children and adolescents, including child sex trafficking victims. With specific application to the topic of childhood victimization, general strain theory offers both a sound explanation of

the probable origins of a familial context of characterized by childhood maltreatment and a useful construal of maltreatment's potent effects in children and adolescents that may explain escalating victimizations that terminate in victimization in prostitution (Agnew, 2009; Broidy & Agnew, 1997; Miller & Mullins, 2009). The next chapter includes a discussion of these two theories and their application to child sex trafficking in prostitution in the United States.

Chapter 4

Theoretical Framework

Two criminological theories, gendered pathways theory (GPT) and general strain theory (GST), are reviewed in this chapter, and their application to the problem of victimization by child sex trafficking in prostitution is considered. GPT is a feminist theory centered on understanding the common contexts and causes of female delinquency (Miller & Mullins, 2009) and may be useful in explaining pathways into exploitation in child sex trafficking. Feminist theory has frequently offered explanations for the high rate of entrapment of women and girls in sex trafficking based on the devaluation of females and the global industrialization of prostitution (Clawson, 2009; Farr, 2005; Jeffreys, 2009, 2010; Morash, 2006). Focusing on detrimental sequences arising from familial abuse, GPT illuminates a pathway of stepping-stones leading from initial childhood victimization to successive and escalating victimizations, terminating with entrapment in prostitution (Giordano et al., 2006; Miller & Mullins, 2006, 2009).

Similarly aligned within the state dependence perspective, GST offers both a sound explanation of the probable origins of childhood strain and a useful construal of the potent evolution of individual strain in caregivers and their children that may facilitate a caustic continuum of victimizations, and ultimately lead to entrapment of maltreated minors in sex trafficking in prostitution. Following these theoretical reviews, a plausible

model of the processes contributing to elevated vulnerability for victimization in child sex trafficking in prostitution is offered.

Gendered Pathways Theory

Projected to be beneficial in explaining life contexts and sequences that elevate the likelihood of victimization in child sex trafficking, GPT is a life course theory highlighting contexts, events, developmental sequences, and choices over the life course that result in female delinquency and criminality (Chesney-Lind & Paska, 2004; Daly, 1992, 1998; Heimer & Kruttschnitt, 2006; Miller, 2008a; Miller & Mullins, 2006, 2009; Morash, 2006; Steffensmeier & Allan, 1996). According to GPT, female pathways into delinquency and criminal activities may be the result of social and psychological pressures that are thought to be distinct from typical male pathways into crime (Alarid & Cromwell, 2006; Belknap & Holsinger, 2006; Heimer & Kruttschnitt, 2006; Miller, 2008a; Miller & Mullins, 2009; Steffensmeier & Allan, 1996). Mainstream criminological theories are not considered inapplicable to females, yet it is not assumed that criminogenic factors are influencing males and females in the same way or with the same intensity (Giordano et al., 2006; Heimer & Kruttschnitt, 2006; Miller & Mullins, 2006, 2009; Steffensmeier & Allan, 1996). The crucial pressures that are considered key to female pathways into crime are “victimization, role entrapment, economic marginality, and survival needs” (Steffensmeier & Allan, 1996, p. 470). The need for a greater understanding of the effect of gender within the theoretical explanations of offending is well supported, as differences in the rates, explanations, sequencing, seriousness, and types of male and female offending and offenders have been well documented within criminological research (Alarid & Cromwell, 2006; Chesney-Lind & Irwin, 2008; Heimer &

De Coster, 1999; Heimer & Kruttschnitt, 2006; Mason & Windle, 2002; Ménard, Anderson, & Godboldt, 2009; Miller & Mullins, 2006, 2009; Steffensmeier & Allan, 1996; Steffensmeier & Schwartz, 2009).

Gender and Life Course Theory

Gender has been shown to affect key components of life course theory: social embeddedness, intergenerational links, and human agency (for review, see Miller & Mullins, 2009). The review of research that follows regarding gender and offending across the lifespan supports the notion that gender matters and that gendered explanations of juvenile victimization may be both relevant and necessary for understanding girls' victimization (Miller & Mullins, 2009).

Within the sphere of social embeddedness (i.e., social ties to others), gender has been shown to profoundly affect offending. Close relationships with those involved in crime and intimate partner violence are important gendered criminogenic influences that markedly affect female offending (Brown & Bloom, 2009; Miller & Mullins, 2009; Morash, 2006; Steffensmeier & Allan, 1996). Research provides support for the supposition that social bonds influence female offending patterns more than male patterns (for reviews, see Bender, in press; Hartman, Turner, Daigle, Exum, & Cullen, 2009; see also, Agnew, 2005b; Benda, Harm, & Toombs, 2005; Daigle, Cullen, & Wright, 2007; Giordano et al., 2006; Haynie, Steffensmeier, & Bell, 2007; Payne, Gottfredson, & Kruttschnitt, 2005). For example, although involvement in romantic relationships with others who engage in crime has been noted as increasing offending for males and females, the influence seems to be greater on females (Benda et al., 2005; Giordano et al., 2006; Haynie et al., 2007; Simons, Stewart, Gordon, Conger, & Elder, 2002). Considering social bonds as a

protective factor, studies using school involvement or religious connections as measures of informal social control have noted that these types of social control provide greater protection for girls than boys (Agnew, 2005b; Daigle et al., 2009; Payne et al., 2005).

Furthermore, GPT research has highlighted the impact of intergenerational links on offending, exploring consequences of childhood victimization, family adversity, and difficulty providing for dependents (Alarid & Cromwell, 2006; Gaarder & Belknap, 2002; Haynie et al., 2007; Katz, 2000; Salisbury & Van Voorhis, 2009). Girls detained by the juvenile justice system recorded higher scores than boys on risk domains involving traumatic childhood experiences and family dysfunction (Cauffman, Lexcen, Goldweber, Shulman, & Grisso, 2007; Gavazzi, Yarcheck, & Chesney-Lind, 2006). Experiencing physical and sexual abuse has been noted as a gendered risk factor influencing repeat offending (Benda, 2005). In the case of teenage pregnancies, due to the basic biological and reproductive differences between genders, girls continue to carry the primary responsibility in child rearing and this has been shown to affect types of offending across the life course (Heimer & Kruttschnitt, 2006; Heimer, Wittrock, & Unal, 2006; Miller & Mullins, 2006; Simpson & Gibbs, 2006; Steffensmeier & Allan, 1996). Conversely, researchers considering protective factors have observed that family attachment, strong bonds to family, and parental support are greater protective factors for girls than boys (for reviews, see Kroneman, Loeber, Hipwell, & Koot, 2009; Hartman et al., 2009).

Beyond gendered effects on offending due to social ties, life course theory describes the role of human agency as “the process by which people select themselves into roles and situations” (Elder & Giele, 2009, p. 10). Unique issues arise as individuals are located and develop within particular communities and historical periods. Within the

given constraints of the historical, geographical, and social contexts, individuals make choices (Maher, 1997). This coupling of constrained social regulation and human agency is a distinctive aspect of life course theory (Elder & Giele, 2009). Institutional, societal, and cultural processes are known to result in gender inequality, constricting female choice and resulting in differences in offending across gender (Adler, 1975; Gaardner & Belknap, 2002; Heimer & De Coster, 1999; Lynch, 1996; Katz, 2000; Messerschmidt, 1993; Maher, Dunlap, Johnson, & Hamid, 2006; Miller, 2008b; Miller & Mullins, 2006; White, 2009). For example, the disparity in the choices available to men and women and the resulting economic inequality generate long-term effects, as women continue to be economically marginalized, resulting in the feminization of poverty (Brown & Bloom, 2009; Gaarder & Belknap, 2002; Heimer et al., 2006; Lynch, 1996; Morash, 2006; Steffensmeier & Allan, 1996; Widom, 2000). For example, the combining of mothering, economic marginality, and domestic violence has led some women to choose crime to manage economic pressure and avoid homelessness (Ferraro & Moe, 2006).

Based on this review of research, the primary premise of GPT that gender and gender relations are fundamental to understanding patterns of offending behavior has found empirical support (Miller & Mullins, 2009). Social ties, intergenerational and familial links, and constrained choice contribute to female patterns of offending across the lifespan. However, a single-dimensional focus highlighting only gender and gender inequality is also insufficient when considering informal and institutionalized discrimination. GPT argues that a multifaceted approach to understanding inequality is required, which necessitates the recognition of the compounding effects of gender, race, and class (Bryant-Davis, Chung, & Tillman, 2009; Maher, 1997; Miller, 2008b; Miller & Mullins, 2009; Morash, 2006; Simpson, Yahner, & Dugan, 2008; Slocum et al., 2005).

Minority women and girls experience more constraints on their exercise of agency. Women and girls are further marginalized within the illegal economies operating in disadvantaged communities, affecting the types of crimes committed (James, Johnson, Raghavan, & Woolis; 2004; Maher, 1997; Miller & Mullins, 2009; Morash, 2006; Steffensmeier & Allan, 1996).

Although age is not often discussed as a sphere of disadvantage that intersects with the other three domains of race, class, and gender, there are many reasons for its inclusion in this equation of discrimination. Much like the historical subjugation and oppression of women, only in the last two centuries have children gained recognition as persons, previously considered as property, unprotected, and to be treated as their parents saw fit (deMause, 1998; Shelman & Lazowitz, 2005). Children physically, psychologically, and legally are dependent on adults for their survival (Agnew, 1985; Finkelhor, 1984, 2007; Kempe, 1985). Therefore, the agency of children of both genders is uniquely constrained by their status of dependency, although girls have been found to encounter higher levels of disadvantage and more severe choice constraints than boys (Chesney-Lind, 1989; Hanna, 2002; Miller & Mullins, 2006, 2009; Steffensmeier & Allan, 1996). This magnification of inequality based on the intersection of gender and age points toward the need for gendered theories of juvenile victimization (Finkelhor, 2007; Miller & Mullins, 2009). Although a fully developed theory of female juvenile victimization has not been framed, the victimization of girls and the resulting consequences have been examined by feminist scholars and researchers attempting to uncover patterns in the life experiences of female offenders (Miller & Mullins, 2009).

Typology of Female Pathways into Offending

GPT has been purposefully substantiated through qualitative research, detailing the disadvantages and societal conditions encountered by women, primarily documented in the words and life stories of female offenders (for reviews, see Morash, 2006; Salisbury & Van Voorhis, 2009; Simpson et al., 2008; see also, Miller, 2008a, 2008b). In the 1990s feminist researchers initially identified a typology of life-course trajectories or pathways by charting the life experiences of female offenders into patterns of offending and desistence (Daly, 1992; Miller & Mullins, 2009). Differing pathways into specified types of offending were theorized to result from particular life histories, which are composed of distinctive risk factors and developmental sequences marked by certain types of troubled transitions (Miller & Mullins, 2009). One of these identified pathways closely corresponds to the findings from numerous case studies reporting the life histories of child sex trafficking victims (Albanese, 2007; Clawson, 2009; Estes & Wiener, 2005).

Similar to several developmental theories of offending, GPT does not hold to an assumption of a general cause of crime; rather, GPT postulates that a typology of pathways toward offending exist for different types of offenders (Moffitt, 1993; Patterson, 1993; Morash, 2006; Steffensmeier & Allan, 1996). Initial GPT research conducted by Daly (1992) revealed a set of distinct paths into various types of crime. Daly's (1992) research resulted in a five-class typology of female offenders: (1) streetwomen, (2) harmed and hurting women, (3) battered women, (4) drug-connected women, and (5) economically motivated women. Daly's (1992) pathway to offending followed by streetwomen possesses particular relevance to prostituted minors, as this pathway was

charted by examining the offending histories of women who fled abusive homes and become involved in criminal activities (e.g., prostitution, drug dealing). In addition, GPT research suggests that pathways into crime are age-graded, with different ages of onset of offending predicting different pathways into crime (Simpson et al., 2008). For instance, a pathway into prostitution is predicted for younger girls who take to the street to escape childhood abuse and a pathway marred by intimate partner violence is more likely for women who begin offending as adults (Simpson et al., 2008).

Recent studies have employed quantitative methods to determine if the typology of female pathways into offending, largely supported by findings of qualitative research methods, can be replicated and validated by advanced statistical modeling or analyses (Gavazzi et al., 2006; Johansson & Kempf-Leonard, 2009; Salisbury & Van Voorhis, 2009). For example, Salisbury and Van Voorhis (2009) employed path analysis, exploring the females' paths to incarceration and identified three pathways similar to those originally identified by Daly (1992): (1) a childhood victimization pathway, (2) a relational pathway, and (3) a social and human capital pathway. The childhood victimization pathway that was identified using path analysis closely resembles the pathway of streetwomen from the original typology documented by Daly (Salisbury & Van Voorhis, 2009) and is comparable to the research findings regarding the risk markers and life histories that were commonly reported by girls who were victimized in sex trafficking (Clawson, 2009; Estes & Weiner, 2005). Namely, a female pathway to incarceration was analytically identified "beginning with childhood victimization that contributed to historical and current forms of mental illness and substance abuse" (Salisbury & Van Voorhis, 2009, p. 541).

Concept of Blurred Boundaries

Perhaps the most important concept that GPT has contributed to feminist criminology is the notion of the blurred boundaries that transect victimization and offending (Alarid & Cromwell, 2006; Chesney-Lind & Pasko, 2004; Daly, 2006; Ferraro, 2006; Miller & Mullins, 2006, 2009; Moe, 2004; Steffensmeier & Allan, 1996). This blurring of the boundaries between victimization and offending was the original fundament of all the predicted gendered pathways into offending (Miller & Mullins, 2009).

GPT researchers contend that the black-and-white, sharply distinct labels of victim or offender serve as inadequate descriptors of women or girls, who due to a context of repetitive abuse, respond by offending (Ferraro, 2006). Offenses committed in the midst of such mitigating factors may be an attempt to escape the situation alive or to prevent further repeated episodes of victimization (Moe, 2004). Criminal prosecutions in such situations are considered criminalization of self-protection (Daly, 2006; Miller & Mullins, 2009).

Sexual exploitation in prostitution is an often-noted example of this blurring of boundaries. Numerous researchers have illuminated the commonly followed pathway from an abusive childhood environment into entrapment in prostitution as a minor (Estes & Weiner, 2001, 2005; Farley et al., 2005; Gilfus, 1992; Hanna, 2002; Silbert & Pines, 1982; Simons & Whitbeck, 1991; Widom & Kuhns, 1996; Williams & Frederick, 2009; Wilson & Widom, 2010). As prior victims of child sexual abuse, such girls are less likely to know how to protect themselves from sexual exploitation (Finkelhor & Browne, 1985; Meiners-Levy, 2006; Rutter, 1989) and are at high risk for developing into easy prey for a predatory child sex trafficker. Chesney-Lind (1989, p. 24) notes that runaway girls

have “little else to trade” except their sexuality and consequently they are often sexually exploited. Subsequently, these minors are often considered culpable for their own sexual exploitation in prostitution and punished for the crime committed against them (Adelson, 2008; Albanese, 2007; Halter, in press; Mitchell et al., 2009).

Child Victimization Pathway into Exploitation in Prostitution

Adolescent females are considered uniquely vulnerable to sexual exploitation due to socialization into gendered scripts, with males being expected to take the sexual initiative and young females expected to acquiesce (Chesney-Lind, 1989; Hanna, 2002; Miller & Mullins, 2006, 2009; Steffensmeier & Allan, 1996). During adolescence, patterns of male domination and female subordination are amplified. This intensification of gender inequality during adolescence is predicted to result in higher levels of mental health issues for abused and disparaged girls, such as depression, low self-esteem, suicidal ideation, and feelings of personal worthlessness that girls hope to change through gaining male approval (Belknap & Holsinger, 2006; Chesney-Lind & Shelden, 2004; Giordano et al., 2006).

These entrenched societal roles or gendered scripts, coupled with a lack of sexual experience, may lead some girls to yield to “painfully one-sided sexual bargains” with sex traffickers, who commonly masquerade as boyfriends or rescuers (Hanna, 2002, p. 12). In summary, Giordano et al. (2006) outlined a prototypical sequence of life adversities that typify the pathway followed by many girls into prostitution: 1) sexually abused by a stepfather or other male relative, 2) a girl runs away from home to escape the abuse, 3) she engages in illegal activity to survive life on the streets, 4) thereby coming in contact with exploitive males who foster or demand further illegal activity, such

as prostitution, and 5) she consequently self-medicates by using drugs or alcohol to cope with the abuse, exploitation, and other degrading experiences.

Pathways Typology as a Sensitizing Concept

Within a typology of female offenders, GPT charted a life-course schematic of probable sequences that may occur within discriminatory and abusive contexts to mark out a pathway for girls into prostitution. Primarily using qualitative methods of research, GPT provided precursory empirical evidence of associations between certain life events, survival strategies, and future outcomes, i.e., sexually abused girls run away only to be exploited in prostitution.

In the social sciences, researchers have often used schemas or templates as starting points to orient researchers toward a reasonable line of inquiry and to provide a structure for organizing and understanding observations or data (Bowen, 2006; King, 1998; King, Carroll, Newton, & Dorman, 2002; Patton, 2002). Rarely, if ever, do researchers enter into a field of study with a completely blank slate because “some way of organizing the complexity of experience is virtually a prerequisite for perception itself” (Patton, 2002, p. 279). Blumer (1954) coined the term “sensitizing concepts” to denote these interpretive devices that provide researchers with “a general sense of reference and guidance in approaching empirical instances” (p. 7). Sensitizing concepts are commonly used to steer inductive qualitative research and also to guide some exploratory quantitative research, alerting researchers to important aspects of the phenomenon under study (Bowen, 2006; Patton, 2002).

Beyond providing singular concepts that bring focus to research, sensitizing concepts may also produce innovative classification systems made up of categories that

classify a phenomenon into distinct parts (Patton, 2002). The first purpose of such sensitizing classification systems or typologies is descriptive, distinguishing aspects of a phenomenon based on the patterns that appear in the data (Patton, 2002). Using this methodological approach, GPT provided a useful typology of female offenders or “a series of patterns distilled into contrasting themes that create alternative ideal-types” (Patton, 2002, p. 459). One of the ideal-types within the GPT typology of female offenders partially illuminated a series of steps or a pathway that adolescent girls may follow, thereby elevating their vulnerability for entrapment in prostitution (Giordano et al., 2006). Yet, many questions were left unanswered concerning how the pattern of events within this prototype were triggered, maintained, and merged together to escalate victimization (Lauritsen & Laub, 2007; Miller & Mullins, 2009).

One danger of sensitizing typologies is that the typology may begin to better reflect the researcher’s world than the world actually being observed (Patton, 2002, p. 460). And while sensitizing concepts may assist the researcher to simplify complex problems by bringing certain dimensions of the problem into focus, concurrently other dimensions may be ignored and fade into the background. GPT has primarily focused on providing an explanation for the disproportionately high percent of child sex trafficking victims who were girls in comparison to the percent of victims who were boys due to patriarchal societal values that lead to disparaging social scripts, the devaluation and victimization of girls and women, and economic inequality between genders (Chesney-Lind, 1989; Jeffreys, 2009; Miller & Mullins, 2006, 2009; Steffensmeier & Allan, 1996). However, little empirical evidence or theoretical explanations have been offered by GPT to explain why certain girls who possess known risk factors for child sex trafficking (i.e., history of sexual victimization) and face multifaceted inequality based on the intersection

of gender, age, ethnicity, and social class (i.e., minority girls from low income families) are entrapped in sex trafficking while other girls with similar backgrounds do not become victims of child sex trafficking. As previously noted, a girl's experience of victimization in childhood is not an infallible predictor of future victimization, as not every victimized girl suffers further victimization (Classen et al., 2005). Neither does every girl of minority status from a lower socio-economic neighborhood become a victim of child sex trafficking in prostitution (Siegel & Williams, 2001a).

Encouraging the continual advancement of research, Patton (2002) noted that once qualitative case studies have been used to develop descriptive typologies, it is then essential to move forward toward "making comparisons and considering causes, consequences, and relationships" (p. 479). Clarifying the contributory mechanisms that drive repeated and escalating victimization for certain girls is needed in order to demystify the processes by which many become entrapped in a perpetuating cycle of victimization. So while GPT described a linkage between childhood victimization and future sexual exploitation, gendered pathways researchers have rarely investigated the mechanisms producing the elevated risk for repeat victimization in certain girls. Simply stated, GPT substantiated a well-worn path followed by girls into prostitution. Yet, GPT fell short of explicating how or where the path begins or why certain girls continue along the path terminating in child sex trafficking in prostitution, while others do not.

Agnew's General Strain Theory

As an association between certain life events and victimization experiences have been observed and described in the personal histories of girls, research efforts should follow in decomposing the empirically-documented relationship into generative risk

factors and seek to identify the underlying processes influencing the outcome of escalating victimization and sexual exploitation (Farrington, 2000; Patton, 2002; Shadish, Cook, & Campbell, 2002). Projected to be useful in revealing the underlying and dynamic state-dependence mechanisms that elevate the likelihood of victimization in child sex trafficking, Agnew's (1992) general strain theory (GST) is a socio-psychological theory that focuses primarily on the pressures that push a person toward crime. Life strains, by causing, influencing, and interacting with negative emotions, aggressive personality traits, and criminogenic social learning, are predicted to result in dysfunctional coping, such as delinquent behaviors (Agnew, 1992, 2001, 2002, 2006a). Agnew (2001) theorized such behavioral responses to strain are chosen based on their perceived functionality, i.e., their assumed likelihood of terminating, reducing, or escaping stressful conditions.

GST defines strain as events or conditions disliked by individuals (Agnew 1992, 2006a). These strains can involve the blocking of access to a valued goal, the actual or threatened loss of something valued, or the actual or threatened presentation of feared or disliked stimuli (Agnew, 1992, 2006a). Strain theory also emphasizes the role of negative emotions, which may interact with negative events to promote delinquency (Broidy & Agnew, 1997). In further development of the GST, Agnew (2001, 2006a) postulated that certain types of strain, specifically those of greater magnitude, those seen as unjust, those that weaken social bonds, and those that foster criminogenic supportive beliefs critically increase the likelihood of delinquency. Numerous studies have supported the propositions of GST, finding associations between strain and

delinquency (for reviews, see Agnew, 2006b; Ellis & Savage, 2009; Froggio, 2007; Ireland, Rivera, & Hoffman, 2009; Slocum et al., 2005).

General Strain Theory and Victimization

The primary purpose of the current research is the analysis of the effect of strain on the likelihood of minors becoming entrapped in prostitution, which has been defined as a type of criminal victimization.⁶ An emphasis on the damaging effects of strain resulting in consequential outcomes other than delinquency is not outside of the sphere of GST. Many forms of childhood victimization have been defined as types of strain (e.g., parental rejection, harsh or erratic discipline, child abuse and neglect) (Agnew, 2009). Strains or victimizations frequently beget further strain, thus implying that strain can be both a precursor and consequence of victimization (Agnew, 2006a).

Previous researchers have examined the link between childhood and familial strains and the risk for criminal victimization (Arata, 2000, 2002; Barnes et al., 2009; Classen et al., 2005; Esbensen, Huizinga, Menard, 1999; Reid & Sullivan, 2009a; Savolainen, Sipila, Martikainen, & Anderson, 2009; Schreck & Fisher, 2004; Tyler & Johnson, 2006b; Widom & Wilson, 2009). For example, Tyler and Johnson (2006b) conducted a longitudinal study with a sample of youth who had experienced child maltreatment and whose caregivers had been investigated by child protective services. The researchers identified a path from child maltreatment to physical assault by

⁶ As noted in Chapter 3, this criminal activity or phenomenon was previously considered to be a form of juvenile delinquency. Hence, in an earlier period Agnew's GST would have been considered sufficient and even purposefully design to encompass and explain such occurrences.

someone other than a caregiver, mediated by running away, early sexual involvement, and delinquency (Tyler & Johnson, 2006b).

Agnew (2006a) outlined such a pathway from childhood strain to victimization in his discussion regarding the effects of early family environment, highlighting that emotionally distressed individuals, conditioned by childhood strain, “often select themselves into environments where they are treated badly” (p. 21). Agnew’s (2006a) proposition that maltreated youth are inclined toward involvement in harmful environments could be understood as the unfortunate byproduct of the immaturity of youth interacting with intolerable levels of abuse, resulting in the selection of risky or hazardous escape routes (see also, Casey et al., 2010; Romeo, 2010; Romer, 2010; Steinberg, 2010). Furthermore, the dependency of youth limits abused minors’ choice selection and personal agency in the situation (Finkelhor, 1984, 2007), with the choices generally available to girls even further constrained (Chesney-Lind, 1989; Hanna, 2002; Jeffreys, 2010; Miller & Mullins, 2006; Steffensmeier & Allan, 1996).

Consequences of Caregiver and Family Strain

Considering the origins of child maltreatment that may predispose a child to experiencing a progression of repeated victimizations, GST postulates that strain is the manifest mechanism triggering certain caregivers to fail to provide needed protection or to abuse their children (Agnew, 1992; Agnew, Rebellon, & Thaxton, 2000) thereby implying an transgenerational transmission of strain from caregiver to child. Caregiver adversities and strains have often been identified as key risk markers, increasing the likelihood of child abuse and neglect (for review, see Agnew et al., 2000). A range of strains applicable to caregivers have been found to result in poor parenting and the

perpetration of child maltreatment, including: marital conflict, spousal abuse, maternal depression, lack of social support, parental criminality, unsupportive family structure, and economic hardship (Agnew et al., 2000).

Agnew et al. (2000) further theorized that caregiver strain produces negative emotions in the caregiver, which are commonly expressed by their withdrawal from or neglect of nurturing responsibilities. As a result of such withdrawal, support and care for the child decays as the parent neglects the child, failing to monitor or emotionally engage with the child (Agnew et al., 2000). Child neglect and failure to nurture or monitor a child may lead to negative behaviors in the child. Such problem behaviors in children are also noted as a source of caregiver strain, resulting in the harsh treatment of children (Agnew et al., 2000); but the directionality of the relationship is unclear (for review, see Hoeve et al., 2009; see also, Gershoff, 2002; Hipwell et al., 2008; Jaffee, Caspi, Moffitt, & Taylor, 2004; Knutson, DeGarmo, Koepl, & Reid, 2005; Patterson, 1993).

Supporting such findings regarding the detrimental effects of strain on caregivers, numerous behavioral scientists have observed that caregivers are often abusive or neglectful due to physical or mental illness, drug or alcohol abuse, incarceration, psychiatric disorders, social isolation, domestic violence, drug abuse, and divorce or separation of spouses (Barnett, Miller-Perrin & Perrin, 2005; DiLauro, 2004; Ford, Chapman, Mack & Pearson, 2006; Herrenkohl et al., 2008; Turner, Finkelhor & Ormrod, 2007). For example, in a study of the relationship of parental psychiatric disorders and the occurrence of childhood physical and sexual abuse, those with a parent diagnosed with depression, mania, or schizophrenia had a two- to threefold increase in rates of

childhood abuse, and those with a parent diagnosed with antisocial personality disorder had a six- to sevenfold increase in rates of childhood abuse (Walsh, MacMillan, & Jamieson, 2002). Additionally, the family context in which child sexual abuse typically occurs has been characterized as less cohesive, more socially isolated, and more dysfunctional than families of children who are not abused (Fassler, Amodeo, Griffin, Clay, & Ellis, 2005; Madonna, Van Scoyk, & Jones, 1991).

As was previously noted, Agnew (2006a) held that it is common for various strains to cluster together (see also, Slocum et al., 2005). The clustering of strains is more likely to elicit negative emotional states, which produces an inability to cope with strain (Agnew, 1992, 2006a). The clustering of adversity may overwhelm the family unit, leaving the children exposed and unguarded. Effective parenting demands energy, time, and emotional stability; such resources are often depleted due to an accumulation of stressors (Agnew et al., 2000). The detrimental effects of caregiver strain on child victimization was noted in recent research examining juvenile victims, with reported findings showing that members of the most severely victimized class of minors were more likely being located within families characterized by very high levels of adversity (e.g., caregiver imprisonment, employment difficulties, problematic drug or alcohol use, conflict between caregivers, homelessness) (Reid & Sullivan, 2009a). The class of children more likely to be located in such families had experienced relatively high levels of maltreatment within the home, elevated levels of victimization by peers, as well as other forms of criminal victimization. Estes and Weiner (2005) identified many of these highly problematical caregiver strains as empirically observed risk factors contributing to sexual exploitation. Caregiver risk factors commonly observed in child sex trafficking

victims were family dysfunction, domestic violence, and parental instability in the form of parental drug dependency and severe mental health problems (Estes & Weiner, 2005).

According to GST, caregiver strain does not directly result in a child participating in criminal activity, such as illegal drug use or sexual exploitation; rather, the effects of caregiver strain are mediated by the harmful events of child maltreatment (Agnew et al., 2000). Loeber, Hipwell, Battista, Sembower, and Stouthamer-Loeber (2009) identified a mediation model from maternal problems or strain (i.e., mental health and conduct problems) to daughter strain, partially mediated by harsh punishment, inconsistent discipline, and low warmth, supporting the conceptualization of the transgenerational transference of strain transmitted by means of child maltreatment.

The Strain of Child Maltreatment

Initially, GST referred to strain as “relationships in which others are not treating the individual as he or she would like to be treated” (Agnew, 1992, p. 48), an apt definition of child maltreatment. Poor parenting, in the form of neglect and abuse, is considered a major source of juvenile strain leading to delinquency (Agnew et al., 2000). As previously mentioned, the various forms of child maltreatment have been found to result in a broad range of impairments, including involvement in delinquency (for review, see Arata et al., 2007; see also, Carson, Sullivan, Cochran, & Lersch, 2009; Colman, Kim, Mitchell-Herzfeld, & Shady, 2009; Ford et al., 2006; Goodkind, Ng, & Sarri, 2006; Hay, 2003; Hay & Evans, 2006; Heide & Solomon, 2006; Hildyard & Wolfe, 2002; Hollist et al., 2009; Lansford et al., 2007; Loeber et al., 2009; Mersky & Reynolds, 2007; Moran, Vuchinich, & Hall, 2004; Sullivan, Farrell, & Kliewer, 2006).

Maltreated children may endure a series of abusive relationships as they mature (Agnew, 2006a) due to the formation in childhood of a dysfunctional template of relationship functioning. Bowlby (1973, 1980) asserted that primary relationships in childhood with caregivers form an enduring template of the relationship process. Utilizing meta-analysis of numerous studies, Fraley (2002) investigated the stability of this initial template across various types of relationships, including familial, romantic, and partner relationships. Fraley found that a moderately stable relational pattern extends until approximately age 20. For African American children in lower income families, research suggests that the mother/child relationship is the primary determinant of this enduring relational pattern (Liang, Williams, & Siegel, 2006). Such findings indicate that being maltreated as a child may initiate a sequence of abusive relationships that persists into adulthood.

Neglect. Straus and Kantor (2005) note that there are various dimensions of child neglect including emotional neglect, physical neglect, and neglect in supervision. Although neglect is often perceived as less damaging than abuse, researchers have found that being neglected as a child is often more damaging than being abused (Bloom, 2000; Hildyard & Wolfe, 2002). Those neglected as children suffer more severe cognitive deficits and language delays than physically or sexually abused children (Bloom, 2000; Heide & Solomon, 2006; Hildyard & Wolfe, 2002; Sullivan, 2000). Neglected children have been found to suffer from greater levels of social withdrawal and have more limited peer interactions relative to physically abused children (Hildyard & Wolfe, 2002). Similarly to abused children, victims of child neglect learn that they cannot count on others to respond to their needs and have a diminished sense of self-worth (Bloom, 2000; Hildyard & Wolfe, 2002; Solomon & Heide, 2005). Possessing low

self-worth, they often perceive that they are unlovable, deserving of abuse, and feel incapable of preventing mistreatment from occurring (Bloom, 2000; Hildyard & Wolfe, 2002).

Lack of a nurturing caregiver/child relationship has been shown to significantly affect the likelihood of children experiencing other types of maltreatment beyond neglect (Finkelhor, 1994; Hildyard & Wolfe, 2002; Rikhye et al., 2008). Rikhye found an eightfold increase in the rates of child abuse among those who reported emotional neglect by their mothers. When families fail to provide needed protection, affection, and guidance, children are left to seek such resources from others outside of their family. Research has shown that such neglect opens up a needy child to abuse by others (Benedict & Zautra, 1993; Hildyard & Wolfe, 2002). Research focused on victim selection by sex offenders concluded that "the victim's vulnerability is (an) important factor associated with choice of specific victims . . . a child with family problems, without supervision, always on the street and in need of help" (Beauregard et al., 2007, p. 455). Such findings suggest that child neglect may facilitate the occurrence of manifold victimizations, with neglect opening a gateway to further types of abuse.

Physical abuse. Child physical abuse is generally defined as "any nonaccidental physical *injury* to the child" and can include striking, kicking, burning, or biting the child, or any action that results in a *physical impairment* of the child (Child Welfare Information Gateway, 2007). Almost all physical abuse of children is perpetrated by caregivers (Bottoms, Nielsen, Murray, & Filipas, 2003). Children are smaller, weaker, and vulnerable to harm due to the physical strength of a much larger adult (Barnett et al., 2005). Very young children, especially those under the age of four, are particularly

vulnerability to severe injury or death due to physical abuse (HHS, 2010). Common indicators of child physical abuse are broken bones, bruises, lacerations, burns, head trauma, and radiological evidence of repetitive fractures (Canter, Rosenfeld, Butt, & Botash, 2008; Miller-Perrin & Perrin, 1999).

The long-term effects of physical abuse are dependent on whether the injuries are fatal, whether the injuries are enduring or permanent (i.e., brain damage from shaken baby syndrome), and whether the child is exposed to further trauma. Child physical abuse has been found to be associated with attachment problems, aggression, low self-esteem, depression, anxiety, PTSD, substance abuse, poor academic performance, suicidal ideation, and further victimization (Barnett et al., 2005; Fagan, 2005; Kolko, 2002; Miller-Perrin & Perrin, 1999; see also Berenson & Andersen, 2006; Bottoms, et al., 2003).

Sexual abuse. According to the American Medical Association (1992), childhood sexual abuse consists of contact abuse ranging from fondling to rape and also noncontact abuse, such as modeling inappropriate sexual behavior, forced involvement in child pornography, or exhibitionism. Numerous researchers have concluded that child sexual abuse is a principal risk factor for various mental health disorders; the most commonly reported disorders among child sexual abuse survivors are PTSD, low self-esteem, depression, suicide, alcohol and drug problems, and eating disorders (for review, see Barnes et al., 2009; see also, Briere & Runtz, 1993; Finkelhor, 1986; Solomon & Heide, 1999). Several studies have shown that the age of the victim shows an inverse relationship with subsequent mental health problems, i.e., the younger the victim, the more severe the damage (Berenson & Andersen, 2006; Cicchetti, Rogosch,

Gunnar, & Toth, 2010; Downs, 1993; Kaukinen & DeMaris, 2005; Scheeringa & Zeanah, 2001). Other studies have found that sexual abuse or assault during adolescence elevates the risk of sexual revictimization in adulthood more than sexual abuse during childhood (Classen et al., 2005; Humphrey & White, 2000). Also, adolescents have been found to experience more self-blame for being abused than those victimized as younger children (Hunter, Goodwin, & Wilson, 1992).

As prior victims of sexual abuse, abused girls may face greater vulnerability to sexual exploitation (Clawson, 2009; Estes & Weiner, 2005; Finkelhor & Browne, 1985; Meiners-Levy, 2006; Rutter, 1989; Summit, 1983). Children brought up in an environment of child sexual abuse often have a psychological incapacity to set or recognize sexual boundary violations, either due to continual violations of boundaries during childhood or because any attempts to establish sexual boundaries during childhood resulted in punishment (Herman, 1992; Rutter, 1989; Summit, 1983). Sexually abused children may “become conditioned by fear not to think about boundaries at all in sexual situations with men” (Rutter, 1989, p. 160).

Child Maltreatment, Negative Emotion, and Repeat Victimization

GST highlights the role of negative emotion, intensifying the relationship between stressful events and delinquency, as emotions such as “anger and frustration energize the individual for action, lower inhibitions, and create a desire for revenge” (Agnew, Piquero & Cullen, 2009, p. 41). The role of negative emotion has been examined in numerous studies, with the majority of studies confirming the influence of negative emotion on the relationship between strain and delinquency (Agnew, Brezina, Wright, & Cullen, 2002; Carson et al., 2009; Hagan & Foster, 2003; Hay, 2003; Hay & Evans,

2006; Hollist et al., 2009; Jang & Johnson, 2003; Jennings, Piquero, Gover, & Perez, 2009; Manasse & Ganem; 2009; Mersky & Reynolds, 2007; Moon, Hays, & Burton, 2009; Moon, Morash, McCluskey, & Hwang, 2009; Simons, Chen, Stewart, & Brody, 2003; Tittle, Broidy, & Gertz, 2008).

Studies examining the intensifying effect of negative emotion on the relationship between strain and delinquency have focused primarily on anger and depression. However, Broidy and Agnew (1997) hypothesized women or girls typically respond to strain with self-denigratory emotions, namely depression, guilt, anxiety, and shame. Gender differences in emotional and behavioral responses to childhood abuse have been substantiated, with males found more likely to respond to abuse with externalizing symptoms, such as aggression, conduct problems, and violence, and with females found more likely to respond to maltreatment with internalizing symptoms, such as depression, self-blame, and suicidal ideation (for reviews, see Bender, in press; Grant et al., 2009; see also, Cauffman et al., 2007; Jang, 2007; Turner, Finkelhor, & Ormrod, 2006). Hay (2003) conducted one of the few studies comparing gendered responses to strain and found that both boys and girls responded to sexual abuse with feelings of anger, but as predicted by Broidy and Agnew (1997) anger responses in girls were more likely to be accompanied by feelings of guilt and depression (see also, Cauffman et al., 2007; Daigle et al., 2007; Feiring et al., 2007).

The role of shame and shaming in reducing delinquency has been explored and tested in criminological research using a variety of theoretical perspectives (e.g., Ahmed, Harris, Braithwaite, & Braithwaite, 2001; Braithwaite, 1989, 2000; Grasmick & Bursik, 1990; Harris, 2003; Harris & Maruna, 2006). For example, in early research on gender

roles and delinquency, Morris (1964, 1965) hypothesized and tested the proposition that girls are less likely to engage in delinquent behaviors than boys due to stronger internal feelings of shame produced by engaging in delinquent behaviors and from greater social disapproval of offending experienced by delinquent girls compared to delinquent boys.

In addition to studies investigating shame as an informal deterrent, derogatory self-attitudes resulting from distressing and unresolved self-devaluing experiences have been the central focus of numerous studies testing a general theory of deviant behavior (for review, see Kaplan & Lin, 2000). Correspondingly, studies focused on sexual revictimization have hypothesized and documented an association between shame resulting from previous maltreatment and an elevated risk of future victimization (for review, see Classen, et al., 2005; Stockdale, O'Connor, Gutek, & Geer, 2002; see also, Arata, 2000, 2002; Filipas & Ullman, 2006; Messman, Ward, & Brown, 2009; Van Bruggen, Runtz, & Kadlec, 2006; Whiffen & MacIntosh, 2005). Finkelhor and Browne (1985) used the term stigmatization to describe the process by which victims of child sexual abuse may develop a negative self-identity, typified by feelings of shame and worthlessness. This negative self-identity based in shame is theorized to result in substance abuse, risky sexual behavior, delinquency, and sexual revictimization. Beyond stigmatization, another empirically supported effect of sexual abuse is traumatic sexualization or the dysfunctional linking of sex with approval and love that is also theorized to lead to risky sexual behavior and sexual revictimization (Finkelhor & Browne, 1985; Stockdale et al., 2002). Recently, researchers have suggested that stigmatization or shame, theorized to be a unique result of sexual abuse (Finkelhor &

Browne, 1985), may instead be a consequence of all forms of child maltreatment (Bloom, 2000; Solomon & Heide, 2005; Van Bruggen et al., 2006).

According to GST, child maltreatment may produce feelings of shame in girls, increasing the likelihood that they will react to negative events or strain (Broidy & Agnew, 1997). Additionally, Finkelhor and Browne (1985) theorized that shame may increase vulnerability of abused girls to sexual revictimization. In application to child sex trafficking victims, research has shown that abused girls who run away are more likely to be victimized by sexual exploitation in prostitution than those who run away but have not been previously abused (Saewyc & Edinburgh, 2010; Saewyc, et al., 2008; Scott et al., 2003; Tyler & Johnson, 2006a). As has been extensively explored and confirmed in studies on sexual revictimization, perhaps shame is the negative emotion driving this increased vulnerability to revictimization in child sex trafficking victims (Arata, 2000, 2002; Classen, et al., 2005; Filipas & Ullman, 2006; Messman, Ward, & Brown, 2009; Stockdale et al., 2002; Van Bruggen et al., 2006; Whiffen & MacIntosh, 2005).

Risk-Inflating Responses to Strain

Child maltreatment is considered a strain that is most likely to be perceived as unjust and high in magnitude (Agnew, 2001). Dysfunctional responses are predicted to occur when strains are perceived as unjust and when the gaps between desires and reality are high in magnitude (Agnew, 1992, 2001). The resulting disappointment and frustration is theorized to lower inhibitions and prompt individuals toward action (Agnew et al., 2009). Behavioral responses to strain are chosen based on their perceived likelihood of reducing or ending distressing conditions (Agnew, 2001).

As an example of a behavioral response to strain, maltreatment could lead a child or adolescent to run away in hopes of resolving intolerable strain (Agnew, 2006a). Running away is often reported as a result of maltreatment and a predictor of delinquency (Bender, in press; Chesney-Lind, 2001). Children commonly run from neglectful and abusive circumstances (for review, see Baron, 2003). Children escape from their abusive homes with the hope and belief that life away from home, even a life on the streets, will be better than the life of abuse that they have experienced (Estes & Weiner, 2001; Sheridan & VanPelt, 2005).

Children who are traumatized have not developed coping skills to deal with such strains (Bloom, 1999; Romer, 2010). Moreover, developmental research has shown that during adolescence, individuals are strongly swayed by short-term outcomes rather than possible long-term consequences, amplifying immaturity in judgment and poor decisions (Casey et al., 2010; Cauffman & Steinberg, 1995; Romeo, 2010; Romer, 2010; Steinberg, 2010). So, the experience of victimization or abuse triggers an inherent motivation to escape further abuse. Yet, adolescents are generally devoid of the necessary knowledge, psychological maturity, or resources available to most adults in similar circumstances (Romer, 2010). This naturally occurring aversion to pain or desire to escape strain in collusion with naïveté of youth inflates the likelihood that adolescents may choose risky escape routes such as running away or select unreliable rescuers such as sex traffickers masquerading as boyfriends (Agnew 2004, 2007; Hanna, 2002; Steinberg, 2010; Steinberg & Scott, 2003). Moreover, runaway girls, lacking legitimate employment opportunities or financial resources to provide for even their most basic needs, are highly vulnerable to exploitation (Estes & Wiener, 2005; Wilson & Widom, 2010).

Rather than physically leaving home by running to the streets, children may use substances with psychotropic properties to create a temporary illusion of escape from the effects of victimization (Harrison, Fulkerson, & Beebe, 1997; Morash, 2006). Abused children learn to shut out pain and escape through various mechanisms (e.g., dissociation, self-mutilation, substance abuse) (Summit, 1983). The painkilling or euphoric effects of drugs or alcohol provide an abused child with an instant method of escape (Harrison et al., 1997; Saah, 2005; Spear & Varlinskaya, 2010). Abusers may even provide the means of dissociation; sex offenders and traffickers have been known to drug victims to sedate, confuse, or silence them (Farley, 2003; Leth, 2005; Cooper, 2005c; Miller, 2008b). Consequently, it should not be surprising to find that those who have experienced maltreatment initiate substance use at a younger age and are at increased risk for multiple-substance use (Arata et al., 2007; Carson et al., 2009; De Bellis, 2001; Harrison et al., 1997; Hollist et al., 2009; Kilpatrick et al., 2003; Lo et al., 2008; Menard, 2002; Moran et al., 2004; Sartor, Agrawal, McCutcheon, Duncan, & Lynskey, 2008). Substance use may serve as a coping mechanism, allowing maltreated children to survive repeated victimization or block the emotional pain of past victimization (Bender, in press; Morash, 2006; Spear & Varlinskaya, 2010; Summit, 1983).

Substance abuse problems, both alcohol use and drug use, have consistently shown a strong association with delinquency, although the sequencing and directionality of the relationship remains unclear (for review, see Bender, in press; Cauffman et al., 2007). The use of alcohol and drugs has also been linked to sexual victimization (Abbey, 2002; Messman-Moore, Coates, Gaffey, & Johnson, 2008; Messman-Moore et al., 2009; Miller, 2008b). Beyond impairing motor skills that increase vulnerability to victimization, substances also impair cognitive functioning and the decision-making

processes (Abbey, 2008; Davis, Stoner, Norris, George, & Masters, 2009). Drug dependency has been noted as a possible risk factor among child sex trafficking victims (Clawson, 2009; Estes & Weiner, 2001, 2005; Stone, 2009).

These two risk-inflating responses to strain, running away and substance use, are predicted to result in a heightened state of vulnerability to entrapment in child sex trafficking. Traffickers often present themselves as caring and strong boyfriends who will rescue the minors from abuse (Hanna, 2002; Albanese, 2007). Runaway and maltreated minors can be easily seduced by fraudulent promises of love, safety, and affection (Hanna, 2002). As prior victims of abuse, runaway or drug-dependent girls are less likely to be able to protect themselves from sexual exploitation and may be at high risk for becoming the prey of child sex traffickers (Arata, 2002; Herman, 1992; Messman-Moore & Brown, 2006; Seligman, 1975; Scaer, 2001; Scott et al., 2003; Simons & Whitbeck, 1991).

*Current Study: Identifying a Strain-Reactive Pathway to Victimization in
Child Sex Trafficking*

The majority of previous research on victimization in child sex trafficking has employed a risk factor approach when investigating the origins of the problem. As presented in Chapter 2, the common risk factors for victimization in child sex trafficking have been repetitively gathered, primarily through extensive interviewing of victims (for review, see Clawson, 2009; Estes & Wiener, 2001, 2005). The frequently noted individual risk markers include female gender, lack of family support, history of abuse or sexual victimization, family dysfunction such as domestic violence, substance abuse and

mental illness in family members, being a runaway or throwaway youth, and drug dependency (Clawson, 2009; Estes & Weiner, 2005; Raphael, 2004).

As previously discussed in Chapter 3, using a risk factor approach to explain victimization may prove ineffective at illuminating origins or generative processes because it is limited to highlighting risk markers, which may or may not be determinant factors (Farrington, 2000; Wikström, 2008). Research on child sex trafficking has yet to provide explanations of why certain minors who have experienced known risk factors for sex trafficking or possess common attributes observed in child sex trafficking victims become entrapped, while others do not. As this study endeavors to advance knowledge regarding child sex trafficking victimization, it is necessary to move beyond the identification of risk factors to a fuller understanding of how the previously identified risk factors originate and combine to escalate vulnerability to victimization. In order to progress past a risk factor approach, Wikström (2008) recommends that researchers “*theoretically*, carry out more advanced analytical work with the aim of identifying potential causes (causal interactions) and credible causal mechanisms” (p. 132, emphasis in the original).

From the presented review of GPT and GST, many similarities between the two theoretical explanations for juveniles involvement in delinquency were identified that may assist in illuminating why certain minors become victimized in child sex trafficking. Both theories (1) are consistent with the state dependence paradigm for explaining persistent offending or the repetition of specified events (Agnew, 1992, 2009; Miller & Mullins, 2009; Nagin & Paternoster, 1991, 2000); (2) focus on adverse pressures that push an individual toward delinquency or increase vulnerability to victimization (Agnew, 1992;

Steffensmeier & Allan, 1996); (3) assert that differences exist between males and females in both the types of strain encountered and in the responses to strain, resulting in varied pathways into delinquency or victimization (Adler, 2009; Broidy & Agnew, 1997; Miller & Mullins, 2009; Steffensmeier & Allan, 1996); (4) consider victimization, including child maltreatment, as a major risk factor or strain promoting entanglement in criminal environments, particularly for females (Agnew, 2001, 2006a; Agnew et al., 2000; Steffensmeier & Allan, 1996); and (5) highlight responses, motivated by a desire to cope with, escape, or survive adversity, that induce further delinquency and vulnerability to victimization (Agnew, 2001; Daly, 2006; Steffensmeier & Allan, 1996).

As was reviewed in this chapter, GPT pioneered a sensitizing typology (Patton, 2002) that described girls' pathways into involvement in delinquency through unraveling and charting the life histories of female offenders, linking the effects of past victimization with subsequent vulnerability to victimization in criminal activities (Daly, 2006; Miller & Mullins, 2009). This perilous linkage of past victimization with further vulnerability resulted in the GPT conceptualization of blurred boundaries between victimization and offending (Daly, 2006; Miller & Mullins, 2009). Child sex trafficking victims are often poignant examples of this blurring of the boundaries between victim and offender, as these victims have often been previously abused or abandoned by their families (Clawson, 2009; Estes & Wiener, 2005) and subsequently considered culpable for their own sexual exploitation in prostitution (Adelson, 2008; Albanese, 2007; Halter, in press; Mitchell et al., 2009). Additionally, GPT highlighted the potency of societal devaluation of girls during adolescence and socialization into gendered scripts that may encourage girls to acquiesce to the manipulation and demands of sex traffickers (Belknap &

Holsinger, 2006; Chesney-Lind, 1989; Chesney-Lind & Shelden, 2004; Giordano et al., 2006; Miller & Mullins, 2006, 2009; Steffensmeier & Allan, 1996).

Constructively narrowing the theoretical focus onto a very specific problem, the child victimization pathway into prostitution within the GPT typology of female offenders was valuable to the current study as a sensitizing concept (Blumer, 1954; Patton, 2002), setting forth an initial template for further exploration of this criminal exploitation of girls. However, the origins and mechanisms operating within the child victimization pathway were not adequately explained by GPT. Furthermore, GPT did not offer a clear explication of the connection between abusive treatment and individual choices of escape, nor explain the role of self-denigratory emotion resulting from childhood maltreatment in girls' victimization in a criminal environment or the potentiating effect of negative emotion on vulnerability to revictimization.

Importantly, GST provided a hypothesis of the generative factors, i.e., caregiver problems and adversity, from which a familial environment characterized by child maltreatment is most likely to originate (Agnew et al., 2000). Thereby, GST offered a sound explanation of the linkage between the previously observed risk factors in child sex trafficking victims of family dysfunction and childhood abuse. In addition, GST more fully explicated the link between individual strain and the resulting behavioral choices of escape and also explained the pivotal role of negative emotion.

In light of this theoretical review, by building upon the previously documented information regarding risk factors found to increase vulnerability to child sex trafficking and drawing from the theoretical components of GST, the current study developed "a plausible process" by which a minor may become a victim of child sex trafficking in

prostitution (Wikström and Sampson, 2006, p. 2). GST provided reasoned explanations of the origins and generative mechanisms that may escalate vulnerability in certain girls. This theorized process, by which girls are conditioned and made acutely vulnerable to victimization in child sex trafficking, was labeled a *strain-reactive pathway to victimization in child sex trafficking*.

Although GPT supplied a sensitizing typology useful in directing initial research efforts toward a reasonable line of inquiry for understanding the topic of child sex trafficking in prostitution (Daly, 1992; Giordano et al., 2006; Salisbury & Van Voorhis, 2009), all of the key predictions of the strain-reactive pathway were drawn from the more fully developed theoretical propositions of GST (see Figure 1). The pathway also incorporated and connected many of the commonly observed risk factors in child sex trafficking victims in the United States (Estes & Weiner, 2005). The key propositions of the current study are:

- (A) Caregiver strain (e.g., domestic violence, mental health problems, substance abuse) is expected to produce a detrimental familial context increasing the likelihood of the occurrence of child maltreatment, including child neglect, physical abuse, and sexual abuse.
- (B) Next, in response to the strain of child maltreatment, it is hypothesized that victimized girls are more likely to choose risk-inflating, even delinquent, pathways of escape. Victimized girls may run away to physically escape maltreatment or begin to use drugs or alcohol to temporarily escape abuse and its effects.

- (C) Self-denigratory negative emotion is theorized to result from the girls' experiences of child maltreatment.
- (D) In addition, this negative emotion, resulting from previous childhood victimization experiences, is theorized to detrimentally inflate vulnerability to victimization in sex trafficking of escaping girls, i.e., girls who run away or use drugs or alcohol to escape the pain of victimization.
- (E) Consequently, these risk-inflating choices of escape taken by abused and now marginalized "delinquent" girls are predicted to increase their vulnerability to revictimization in child sex trafficking.

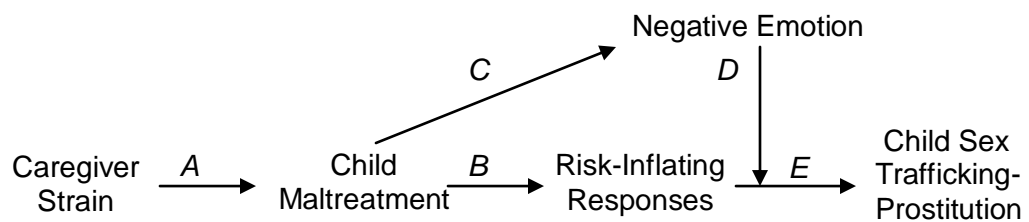


Figure 1. Strain-Reactive Pathway to Victimization in Child Sex Trafficking in Prostitution

As noted above and displayed in Figure 1, (A) reflects the proposition by GST that caregiver adversities and strains increase the likelihood of child abuse and neglect (for review, see Agnew et al., 2000). Point (B) reflects the propositions offered by GST that maltreated girls may engage in risk-inflating responses to maltreatment, such as running away or using drugs or alcohol, motivated by a desire to cope with, escape, or survive adversity (Agnew, 2001). Point (C) indicates the hypothesis set forth by GST that the strain of child maltreatment results in negative emotion, specifically noting that females respond to strain with self-denigratory emotions (Broidy & Agnew, 1997). Point (D) reflects the proposition by GST that self-denigratory emotions in girls resulting from childhood maltreatment have a moderating effect, increasing the effect of childhood strain on vulnerability to revictimization (Broidy & Agnew, 1997). Point (E) is drawn from the propositions of GST regarding girls' behavioral responses to adversity, such as running away, which are predicted to induce further vulnerability to victimization (Agnew, 2001). The next chapter describes the method used to assess the suitability of the theorized pathway for explaining the entrapment of girls in sex trafficking in prostitution.

Chapter 5

Method

The purpose of this chapter is to present the method used to test the suitability of the strain-reactive pathway described in Chapter 4 that was designed to explore the effects of caregiver strain, child maltreatment, and risk-inflating responses to strain on vulnerability to victimization in child sex trafficking in prostitution. The pathway was assessed using data drawn from a sample of 174 females of minority and lower socioeconomic status living in an urban environment who were participants in a longitudinal study investigating the effects of childhood abuse (Siegel & Williams, 2001a, 2001b). The current study utilized a quantitative method of statistical analysis, structural equation modeling, in order to analytically identify and estimate the posited pathway into child sex trafficking in prostitution.

General Methodological Overview

As was previously reviewed, the majority of research on child sex trafficking victims had been qualitative in nature, based on retrospective data gathered from in-depth interviews with victims (Goździak & Bump, 2008a; Williams & Frederick, 2009). The process of identifying prior victims of child sex trafficking in prostitution, interviewing them at length, and then organizing the interviews so that they revealed patterns in the occurrences of victimizations effectively documented the common risk markers among

victims. This prior body of research was essential in guiding the formation of the theorized pathway tested in this study.

However as was recommended by numerous researchers reporting a severe deficit of methodologically reliable research on sex trafficking (Goździak & Bump, 2008a; Musto, 2009; Zhang, 2009), this study deviated methodologically from the past precedent of relying on qualitative methods of data collection and analysis. From a research perspective, it was considered important to offer multivariate, quantitative evidence of the existence of the theorized pathway into child sex trafficking (Salisbury & Van Voorhis, 2009; Wikström, 2008). By using quantitative methods of data analysis, it was possible to precisely specify and analytically test the proposed pathway and study hypotheses as well as statistically interpret the results of the analyses. For example, based on the use of inferential statistics it was possible to determine how probable it was that the observed associations between the variables included in the models occurred by chance alone. Ultimately, the use of quantitative methods of analysis in this study not only provided explicit validation of the proposed pathway but also offered further validation of the previously accrued information regarding child sex trafficking victims.

The method of multivariate analysis used in this study was structural equation modeling (SEM). SEM is a statistical modeling tool that is useful for theory testing or development (Asparouhov & Muthén, 2008; Kline, 2005). SEM can be used in a variety of ways to test or develop theory: (a) in a strictly confirmatory manner with one model proposed and tested, (b) in an exploratory manner by testing alternative models with several theoretical models being tested and compared to determine the best fitting

model, or (c) in a developing model approach with an initial model tested and subsequent modifications made to improve fit (Garson, 2009; Kline, 2005).

As SEM can be employed in an exploratory manner for theory development, numerous models based on the propositions presented in Chapter 4 were developed and tested. All of the models evaluated the elements of the strain-reactive pathway by examining the direct and indirect effects of caregiver strain, child maltreatment, and risk-inflating responses on vulnerability to child sex trafficking in prostitution (see Figure 2). SEM was projected to be particularly beneficial in testing the proposed models, as it is commonly used to identify and estimate relationships and mediating effects between observed and latent variables (Kline, 2005). The latent variables included in the various models were caregiver strain, child neglect, and child maltreatment. These latent variables were each identified using confirmatory factor analysis (CFA) from several observed indicators (see Measures). The remaining variables in the models, including running away as a minor, age of initial drug or alcohol use, and being prostituted as a minor, were drawn from observed indicators.

Initially, separate models were specified using SEM in order to independently examine the effect of caregiver strain on each type of child maltreatment, including child neglect, sexual abuse, and physical abuse (see Figure 2). In addition, these models allowed for the identification of the direct effects of each form of childhood maltreatment on the behavioral or risk-inflating responses of maltreated girls and the indirect effects of each of the forms of child maltreatment on vulnerability to victimization in child sex trafficking in prostitution.

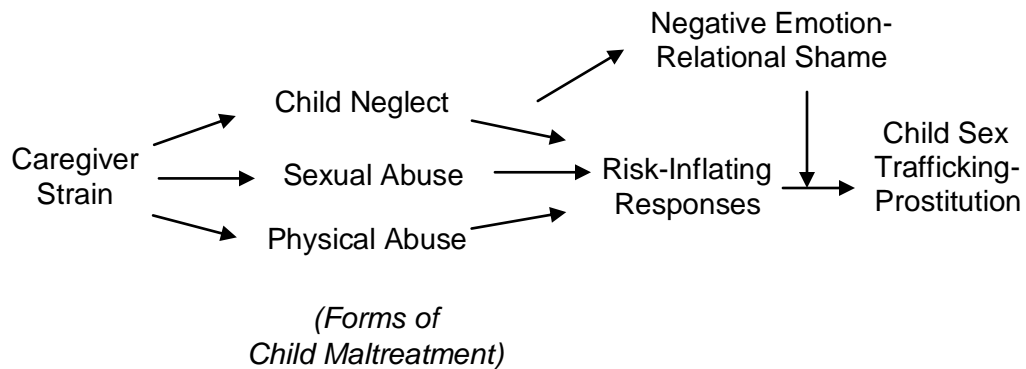


Figure 2. Hypothesized Strain-Reactive Pathway to Victimization in Child Sex Trafficking in Prostitution Including the Forms of Child Maltreatment

After testing the models examining the effects of each type of child maltreatment in isolation, a model including multiple types of child maltreatment was identified and evaluated. As examining each type of child maltreatment in isolation may result in an overestimation or underestimation (i.e., suppression) of its effects, the combining of the types of child maltreatment into one model was also necessary (Kline, 2005; Wilson & Widom, 2010). In addition, the consequent development of negative emotion (measured as relational shame) due to the experience of child maltreatment and its potential moderating effect (Baron & Kenny, 1986; Holmbeck, 1997, 2002, 2006) on vulnerability to victimization in prostitution for girls who run away or initiate early drug or alcohol use was explored through the specification and examination of supplementary models. Lastly, testing for the existence of moderating or interaction effects of negative emotion was further investigated using logistic regression (Jaccard, 2001).

Study Participants and Data Collection Procedures

As mentioned in Chapter 2, due to the hidden nature of the crime of child sex trafficking and the complexities involved in gaining access to its victims, available data on this highly victimized population of minors are severely lacking (Goździak & Bump, 2008a). However, previously collected data from a longitudinal study investigating the effects of childhood sexual abuse were available for use in testing the theorized pathway. The data were drawn from primarily urban, low-income, African-American females (Siegel & Williams, 2001a, 2001b). Living in an urban environment, being of minority status, poverty, and being female have all been found to be risk markers for child victims of sex trafficking in prostitution (Estes & Wiener, 2005; Clawson, 2009).

McCahill, Meyer, and Fischman (1979) collected the original data between 1973 and 1975 as a part of a larger study on the after effects of sexual assault. All 206 girls included in the original phase of data collection were brought to the emergency room of one particular municipal hospital where they underwent forensic examinations and received medical treatment due to being sexually abused.⁷ The original participants were later interviewed two subsequent times, in 1990-1991 and again in 1996-1997, with the objective of gaining a greater understanding of the consequences of child sexual abuse. During the follow-up interviews in 1996-1997, the original sample of abused females was matched with a set of comparable females who received medical treatment

⁷ During this time period, it was mandated that all residents of this large northeastern U.S. city who were reported victims of sexual assault, “regardless of where they were treated initially, be brought to one particular municipal hospital emergency room for treatment and collection of forensic evidence” (Siegel & Williams, 2001a, p. 17).

at the same hospital for a reason other than sexual abuse.⁸ By searching the pediatric emergency room records of the same municipal hospital, matches were made based on race, age, and date of hospital visit (Siegel & Williams, 2001a, 2003). Data from the follow-up interviews conducted in 1996-1997 were analyzed in this study.

During the 1996-1997 follow-up interviews, researchers contacted a total of 238 women. Of these women, 174 agreed to be interviewed.⁹ Interviewees were paid \$35 for participating. Four female interviewers, trained in conversing on sensitive topics, conducted the face-to-face interviews that lasted approximately three hours (Siegel & Williams, 2001a). After establishing rapport, a series of questions about sexual experiences in childhood were asked, eliciting the participants' abuse and victimization history (Siegel & Williams, 2003, p. 911). To assist with memory recall, the interviewers defined the time frame of the questions and established memorable milestones for each life stage, aiding the participants' recall of memories for the relative time periods (Siegel & Williams, 2001a).

Fifty percent of the 174 women included in this phase of data collection were from the original sample of child sexual abuse victims and the other 50% were from the matched comparison group (Siegel & Williams, 2003, p. 911). As previously explained, members of the original sample were selected based on their childhood experience of

⁸ In both Wave 2 and Wave 3 comparison groups were identified and matched to the original sample based on the hospital records. However only during Wave 3 were interviews conducted with the comparison group. No significant differences were found in race, age at time of hospital visit, or median family income during 1973-1975 (based on census tract data) between the original or comparison groups (Siegel & Williams, 2001a).

⁹ A significantly greater percentage of the women in the original sample of childhood sexual abuse victims than of the comparison group were located and agreed to the interview. Researchers concluded that this difference was due to the wave of interviews that occurred in 1990-1991, in which updated contact information was collected from the original victims (Siegel & Williams, 2001a).

sexual abuse. Not surprisingly, and in concurrence with the rate of self-report of child sexual abuse in the general population (Briere & Elliot, 2003), 31% of those in the matched comparison group reported sexual victimization before they reached the age of 13. As was done by previous researchers utilizing these data (Siegel & Williams, 2003), rather than deleting data from the participants who self-reported child sexual abuse from the analyses, as they are inappropriate for inclusion in the matched or comparison group, both “official” and “self-reported” victims were counted as child sexual abuse victims. In their previous research, Siegel and Williams (2003) ran analytic tests comparing the official victims of sexual abuse (the initial sexual abuse victims examined at the hospital) and the self-reported victims. Statistically significant differences were not found in the characteristics or elements (e.g., perpetrator was a family member or stranger, penetration during sexual abuse) of their sexual victimizations before the age of 13 (Siegel & Williams, 2001a).

The ethnic diversity of the full sample of females used in these analyses consists of 89% African American, 7% Caucasian, 2% Hispanic, 1% Native American, and 2% described their ethnicity as biracial. At the time of the follow-up interviews in 1996-1997, the average age of the sample was 31.6 years old. The average age of the sample participants at the time of their hospital visit was 8.4 years old. The average family median income based on census tract information at the time of the collection of the original data (1973-1975) was categorized as lower income¹⁰, i.e., \$7,491 was the

¹⁰ The median household income in 1975 in the United States was \$13,720, with \$8,779 estimated to be the median income for African American families in 1975 (U.S. Bureau of the Census, 1977). The threshold of poverty for a family of six in 1975 was \$7,316 (U.S. Bureau of the Census, 2009).

median income for the original sample and \$7,265 was the median income for the comparison group (Siegel & Williams, 2001a).

Measures

Caregiver Strain

As shown in Figure 2, the caregiver strain latent variable was specified from four observed indicators regarding the strain of the participants' mothers, including: (1) drinking problem, (2) drug problem, (3) mental health problem, and (4) domestic violence between the minor's parents. These life adversity or caregiver strain indicators have commonly been included in research or surveys exploring the effects of life adversity on youth or family functioning (Finkelhor, Hamby, Ormrod, & Turner, 2005; Turner & Butler, 2003). In addition, these observed indicators of caregiver strain were commonly noted as risk factors among minors who had been victimized in child sex trafficking in prostitution (Estes & Wiener, 2005; Clawson, 2009). Such information regarding the participants' fathers was not available in the data. However, previous research regarding caregiver/child relationships has found that for African American children in lower income families, the mother/child relationship is typically the primary caregiver relationship (for review, see Liang et al., 2006).

The observed indicators of caregiver adversity were based on responses to four questions, asking each participant questions regarding her biological mother or the person that the participant considered her mother figure while a youth: (1) Was there ever a time while you were growing up when she drank heavily or had a drinking problem? (2) Did she ever have a problem using drugs while you were growing up? (3) While you were growing up, did she ever have any serious emotional or mental

problems such as being depressed a lot, or having an uncontrollable temper, or being very fearful of things such as being afraid to go out or anything else? (4) Did you ever witness your parents (defined as a couple, a man and woman living together with you, who were parents to you) hit or throw things at one another? No was coded "0" and yes was coded "1."

Although the reliability for this index was lower than the desired alpha level of .70 (Nunnally, 1978) with a Cronbach's alpha of .60, this was not unexpected as life strains or adversities are not necessarily correlated with each other (Lin & Mieczkowski, 2010; Mazerolle, 1998). This variation is typically due to the fact that certain types of adversity occur relatively infrequently. In this index of caregiver adversity, the frequencies of the four observed indicators revealed a fair amount of variation; for example, domestic violence between parents was reported by 45% of the participants, while only 17% reported that their mother had a drug problem. Straus and Kantor (2005) argued that low internal consistency between items does not necessarily mean that an instrument is invalid. Measures of internal consistency, such as Cronbach's alpha, may be low due to highly skewed distributions of included items, as this reduces "the size of the correlation between items and therefore also the alpha" (Straus & Kantor, 2005, p. 25). Another reason that the alpha may be low for this index of child neglect is that it contained a small number of items. Cronbach's alpha is "dependent not only on the magnitude of the correlations among items, but also on the number of items" (Streiner & Norman, 1989, p. 64). Lastly, the use of dichotomous or coarsely categorized data has been found to result in an attenuation of correlations between observed variables (Bollen & Barb, 1981). As a consequence, measures of internal consistency based upon inter-item correlations of dichotomized items, such as the items included in this index, will be lower

than if the items included in the index possessed a greater number of categories of response (Barrett, 2010).

Additionally, principal components analysis (unrotated factor solution) was run using SPSS version 14.0 (SPSS, 2005) with four items included in this index of caregiver strain, resulting in a range of factor loadings from .49 to .78. SPSS (2005) provides two assessments for evaluating the adequacy of correlation matrices for factor analysis. The Kaiser-Meyer-Olkin (KMO) sampling adequacy is an index that compares the magnitudes of the observed correlation coefficients to the magnitudes of the partial correlation coefficients. The KMO should be greater than .60 (Dzuiban & Shirkey, 1974). The KMO for the items included in the caregiver strain latent variable was .66, reaching the recommended value. Also, Bartlett's test of sphericity is used to test the null hypothesis that the variables in the correlation matrix are uncorrelated. The Bartlett's test of sphericity was significant ($p = .000$), as recommended (Dzuiban & Shirkey, 1974). Five of the six inter-item correlations were statistically significant with correlations ranging from .13 to .39, with an average inter-item correlation of .26. Only the coefficient of domestic violence with drug problem was non-significant, $\phi = .13$, $p = .08$. These two items were the indicators with the greatest variation in frequency (45% vs. 17%).

While the index showed a low Cronbach's alpha, the items were also analyzed using confirmatory factor analysis (CFA) with the Mplus program (Muthén & Muthén, 1998-2007) prior to their inclusion in the full structural equation model. This step in the analytic plan further assessed the level of item loading using the weighted least squares mean and variance adjusted (WLSMV) estimator, which is useful in factor analysis with

ordinal and dichotomous variables because it is robust to violations of multivariate normality (see Analytic Strategy and results described in Chapter 6).

Child Neglect

Also shown in Figure 2, the child neglect latent variable was specified from five observed indicators: (1) insufficient parental supervision; (2) insufficient food; (3) inadequate medical care; (4) inadequate parental care due to drug or alcohol use; and (5) lack of love. Although operationally defining child neglect is considered one of the greatest challenges in researching child maltreatment, these indicators cover the key dimensions of child neglect noted by researchers including: failure to provide health care, inadequate supervision, inadequate nutrition, and failure to provide emotional nurturing (Barnett et al., 2005; Hildyard & Wolfe, 2002; Straus & Kantor, 2005).

The observed indicators of child neglect were based on participants' responses to five questions, asking whether her parents (defined as persons that the participant considered her mother figure or her father figure while a youth) ever: (1) had to leave her home alone, even when they thought an adult should be there; (2) were unable to make sure she got the food she needed; (3) were not able to make sure she got to a doctor or hospital when she needed to; (4) were so drunk or high they had a problem taking care of her; and (5) were so caught up with their own problems that they were unable to show or tell her that they loved her. These interview questions pertaining to child neglect were similar to those used in previous research on child maltreatment (Finkelhor, Hamby, Ormrod, & Turner, 2005; Hildyard & Wolfe, 2002; Turner & Butler, 2003). No was coded "0" and yes was coded "1." The Cronbach's alpha for this index was .70, showing an adequate level of internal consistency (Nunnally, 1978). As with the measure of

caregiver strain, the items were further analyzed using the WLSMV estimator that is designed for analyzing models with non-normally distributed categorical indicators because it is robust to violations of multivariate normality (see Analytic Strategy and results described in Chapter 6).

Child Physical Abuse with Injury

Physical abuse is generally defined as "any nonaccidental physical *injury* to the child" and can include striking, kicking, burning, or biting the child, or any action that results in a *physical impairment* of the child (Child Welfare Information Gateway, 2007).

The harm standard that is generally used for defining child physical abuse states that children can be categorized as victims of physical abuse if they have "observable injuries lasting at least 48 hours" (Miller-Perrin & Perrin, 1998, p. 61). Based on such definitions of child physical abuse, the dichotomous variable in the data that asked, "Did any punishments by your parents (defined as persons that the participant considered her mother figure or her father figure while a youth) cause physical injury which required medical attention?" was selected for inclusion in the proposed model. The interviewer did not inquire further as to whether or not medical attention was actually sought for the injury.

This one-item measure of child physical abuse was not considered as reliable for assessing the occurrence of child physical abuse as a measure based on various indicators or obtained from multiple sources (Malinosky-Rummell & Hansen, 1993). However, the child physical abuse measure used in this study was similar to measures used by previous researchers. For example, a prospective study on child abuse by Brown, Cohen, Johnson, and Salzinger (1998), which gathered child abuse data during

the same time period as the data gathered for this study, used a very similar measure for child physical abuse by asking participants whether “anyone they lived with ever hurt them physically so that they were still injured or bruised the next day, could not go to school as a result, or needed medical attention” (p. 1068).

In a study of the effects of abuse based on the level of severity, Leserman et al. (1997) found that women who had experienced more severe forms of physical abuse such as abuse that they experienced as life threatening suffered from greater psychological consequences. Milder, less violent forms of physical abuse did not result in negative outcomes. So although this measure of child physical abuse could be considered relatively severe and thereby may exclude some children who were physically abused without being injured to the point of needing medical attention, in light of previous research the measure used in this study was considered adequate for identifying those who experienced child physical abuse at a severity level that would affect their risk for revictimization or other types of consequential impacts. The observed indicator was dichotomous, with no coded “0” and yes coded “1.”

Juvenile Sexual Victimization

Child sexual abuse “included incidents involving genital contact (including fondling), force, or sexual contact with someone who was five years older than the respondent when she was younger than 13” (Siegel & Williams, 2003, p. 912). Incidents that did not involve genital contact were not counted as sexual abuse for the purpose of this study (Banyard, Williams, & Siegel, 2003, p. 339). Adolescent sexual abuse or victimization was defined as “incidents, between ages 13 and 17 that involved sexual contact and force or involved genital contact that she considered nonconsensual

with someone five or more years older” (Siegel & Williams, 2003, p. 912). In a review of research definitions and measures of sexual abuse, the one used in this study is generally considered intermediate, with some researchers using a broader designation that includes noncontact sexual victimization (e.g., exhibitionism) and nongenital contact (e.g., kissing, hugging) and other studies using a narrower definition of sexual abuse as only rape usually including oral, anal, or vaginal penetration (Roodman & Clum, 2001).

The definition of sexual abuse used in research was found to influence the reported effect sizes of sexual abuse on psychological consequences in the predicted direction, i.e., the broader definitions were related to lower effect sizes in revictimization and more narrow definitions were related to higher effect sizes (Roodman & Clum, 2001). Thus, noncontact sexual victimizations have not been found to result in the same long-term psychological consequences or result in the same level of elevated revictimization risk as the more severe forms of sexual victimization (Leserman et al., 1997; Roodman & Clum, 2001). In view of previous research findings, the definition for sexual abuse used in this study was considered adequate to measure victimization from sexual abuse, detecting those who were more likely to experience elevated risk for revictimization or other negative impacts as a result of sexual abuse.

In previous research studies, sexual victimization occurring prior to reaching the age of 18 has been included as one measure, rather than including child and adolescent sexual victimizations as separate variables (Muehlenhard, Highby, Lee, Bryan, & Dodrill, 1998; Senn, Carey, Venable, Coury-Doniger, & Urban, 2007; Siegel & Williams, 2001). Although these two conditions are not considered to be equivalent or conceptually identical, research has yet to determine at which developmental stage the

consequences of sexual victimization are more severe based on the victim's age at the time of the sexual victimization (Classen et al., 2005; Downs, 1993; Humphrey & White, 2000; Kaukinen & DeMaris, 2005). However, research has consistently found that multiple incidents of sexual victimization or cumulative trauma across life stages results in a greater likelihood of revictimization, as well as increasing the likelihood of numerous other mental health disorders (Arata, 2002; Classen et al., 2005; Humphrey & White, 2000). Therefore, juvenile sexual victimization was coded in a manner that captured the effects of "double" victimization as well as the effects of experiencing any sexual victimization as a minor (Siegel & Williams, 2001, p. 24). Participants who reported never being sexually abused or victimized before the age of 18 were coded "0". Participants reporting either being sexually abused as a child (i.e., before the age of 13) or as an adolescent (i.e., while aged 13-17 years old) were coded "1". Those who reported sexual victimization during both childhood and adolescence or double victims were coded "2". The observed indicator was included in the models as an ordered categorical variable rather than as a continuous variable.

Age of Initial Drug or Alcohol Use

Participants in the study reported the age they first used drugs and the age they first used alcohol. These two variables were moderately correlated ($r = .49, p < .001$). They also contained a relatively high amount of missing data compared to the other variables that were included in the study models, i.e., information on initial age of drug use was missing from 34 cases or 20% of the sample and information on the initial age of alcohol use was missing from 16 cases or 9% of the sample. As both the use of drugs and alcohol have been found to increase vulnerability to sexual victimization,

including victimization in child sex trafficking in prostitution (Abbey, 2002; Clawson, 2009; Estes & Weiner, 2005; Messman-Moore et al., 2008; Messman-Moore et al., 2009; Miller, 2008b), the reported initial age of alcohol use and the reported initial age of drug use were pooled into one variable. The youngest reported age from either variable was recorded as the initial age of drug or alcohol use. The combining of the two variables resulted in a slight decrease in the amount of missing data. The combined variable had missing data from 14 cases or 8% of the sample. The reported age of initial drug or alcohol use was included in the models as a continuous variable.

Running Away

The observed indicator for running away was dichotomous with participants in the study reporting whether or not they ran away from home before the age of 18. No was coded "0" and yes was coded "1."

Relational Shame

Siegel and Williams (2001a, 2003) collected responses from an array of indicators designed to measure two concepts from Finkelhor and Browne's (1985) Traumagenic Theory of Child Sexual Abuse: traumatic sexualization (i.e., a dysfunctional linking of sex with love or the inappropriate use of sex to obtain approval) and stigmatization (i.e., negative self-concept, typified by feelings of shame and worthlessness) from items contained in Jehu's (1998) Belief Inventory. The constructed scale measured the level of shame in the form of self-denigratory beliefs and behaviors pertaining to romantic/sexual relationships. Full or partial versions of the Belief Inventory have been regularly used as research instruments to measure self-denigratory beliefs resultant of sexual abuse (Edmond, Rubin, & Wamback, 1999; Leach, Freshwater,

Aldridge, & Sunderland, 2001; Pitts & Waller, 1993; Price, Hilsenroth, Petretic-Jackson, & Bonge, 2001; Reid & Sullivan, 2009b; Siegel & Williams, 2003; Waller, Ruddock, & Pitts, 1993).

This measure corresponded to a great extent with Broidy and Agnew's (1997) postulation that females are likely to respond to strain with self-denigratory emotions, such as shame. In addition, this measure of relational shame was consistent with propositions within gendered pathways theory regarding the contextual effects created by societal pressures relevant to adolescent females, specifically that girls experience a process of devaluation during adolescence and may perceive male approval as a way to resolve such feelings of personal worthlessness (Belknap & Holsinger, 2006; Chesney-Lind & Shelden, 2004; Giordano et al., 2006). Shame pertaining to romantic/sexual relationships in girls may trigger acquiescing to the manipulation and demands of sex traffickers (Belknap & Holsinger, 2006; Chesney-Lind, 1989; Chesney-Lind & Shelden, 2004; Giordano et al., 2006; Miller & Mullins, 2006; Steffensmeier & Allan, 1996).

To construct this measure, participants were asked whether the following statements were true or false for them *all or most of the time*: (1) in your opinion, no man would care for you without a sexual relationship; (2) in your opinion, only bad, worthless guys would be interested in you; (3) you use sex to get something you want or need; (4) you find yourself in awkward sexual situations; (5) you get into trouble because of your sexual behavior; (6) you control others through the use of sex. Responses were combined to create a scale with values ranging from 0 to 6. Responses to the individual items included in the scale were not available in the data. Therefore, it was not possible to specify a latent variable from the individual scale items. Higher scores on the scale

indicate higher levels of shame in the form of self-denigratory beliefs and behaviors. Cronbach's alpha for this scale was .79 (Siegel & Williams, 2001a). This variable had many observations clustered at zero resulting in a highly skewed distribution. As this variable was not normally distributed, the variable was included in the models as an ordered categorical variable rather than as a continuous variable.

Prostituted as a Minor

The observed indicator, prostituted as a minor was dichotomous with participants in the study reporting whether they “exchanged sex for money or drugs, that is engaged in prostitution” before the age of 18. No was coded “0” and yes was coded “1.”

During the interview with the study participants, there was no inquiry as to whether a sex trafficker or a need such as food, shelter, or drugs, drew the minor into prostitution. However as clarified earlier, both situations are considered commercial sexual exploitation of a child and the procurer of sex with a minor would be legally considered a sex trafficker if there were no involvement of a third party (i.e., pimp, family member) profiting from the sex act of the minor (Adelson, 2008; DOJ, n.d.). In addition, prior studies have found that the majority of girls involved in prostitution in the United States were under the control of sex traffickers (Albanese, 2007; Estes & Weiner, 2005). Moreover, the effects of both child sex trafficking involving a third-party sex trafficker and the forms of child commercial sexual exploitation that frequently have been labeled survival sex or trading sex have been found to be highly detrimental (Albanese, 2007; DOS, 2008, 2009; Estes & Weiner, 2005; FACJJ, 2007; Inciardi, 1993). In light of previous findings and the broad legal definition of sex trafficker, the measure of being

prostituted as a minor available in the data was considered sufficient for use in the study models.

Analytic Strategy

The analytic strategy of this study involved several ordered steps. Descriptive statistics of the demographic attributes of the sample and observed variables included in the structural equation models were examined to clarify key characteristics of the study sample. As the study sample was purposefully collected and involved a matched research design, the descriptive statistics were not representative of general population parameters. Bivariate statistics of the observed variables included in the models were computed, reporting the strength, direction, and level of statistical significance for each of the associations between all of the variables included in the study. As nominal, ordinal, and continuous variables were included in the model, the coefficients were computed using Pearson product-moment correlation, point-biserial correlation, Spearman rank correlation, Cramer's V , or phi. In order to further examine the relationships between several key study variables, additional bivariate analyses using the Chi-square test of independence were conducted.

All proposed models were tested via structural equation modeling (SEM) using the Mplus program (Muthén & Muthén, 1998-2007). SEM functions similarly to multiple regression, but uniquely allows for the modeling of associations between observed variables and latent variables (Kline, 2005). Distinct from multiple regression, SEM allows for the assessment of a system of equations. SEM integrates factor analysis to identify latent variables with path analysis to estimate the structural model. As is commonly done when employing SEM, two steps were included in the analytic process:

(1) the measurement model that identifies and validates the latent variables was tested independently, and (2) the fully proposed SEM was tested (Anderson & Gerbing, 1988).

Measurement Models

Factor analysis is a multivariate statistical technique that can be used for several purposes within research. Confirmatory factor analysis (CFA) is commonly used to confirm hypotheses or preconceptions about data patterns and as a foundational step of model specification within SEM called the measurement model (Kline, 2005). Factor analysis is based on the premise that shared variance among two or more manifest indicators or variables may possibly indicate the existence of some underlying, latent factor (Kim & Mueller, 1978). Factors may refer to observable phenomena or cause indicators, but more typically reflect latent or hypothetical constructs (Kline, 2005). By utilizing CFA to identify latent variables, measurement error in the model is reduced through the use of several indicators for each of the latent variables (Kline, 2005). So in this first step of the analysis, CFA was used to identify and estimate the measurement model and measurement paths, specifying the structure of each of the latent variables. The findings of good model fit, along with strong and significant loadings of the manifest indicators on their respective latent variables, were used to determine the quality of the measurement model (Kline, 2005).

Structural Models

Only after the analyses and assessment of the measurement models were each of the full structural equation models assessed to determine whether the theorized model adequately projected the actual observed relationship patterns in the data (Kline, 2005). A collection of tests was used to assess various aspects of model fit of both the

measurement models and the structural models. The appraisal of the various model fit indicators was based on guidelines provided by Kline (2005), Hu and Bentler (1999), and Yu (2002). Chi-square is a statistic that tests the degree of misfit between the proposed model and a null model (Hu & Bentler, 1999). A non-significant chi-square suggests that the proposed model fits the data adequately. Other indicators assessing model fit were also used, including: normed chi-square (NC) of two or less; Comparative Fit Index (CFI) of .95 or higher; Tucker-Lewis Index (TLI) of .95 or higher; Root Mean Square of Approximation (RMSEA) of .06 or less; and Weighted Root Mean Square Residual (WRMR) of .90 or less (Hu & Bentler, 1999; Kline, 2005). With binary outcomes, as in the proposed model, slightly more stringent guidelines of CFI of .96 or higher and RMSEA of .05 or less have been found to indicate good model fit (Yu, 2002). The CFI and the TLI are incremental fit indexes and report the improvement in model fit by comparing the specified model with a baseline model (Hu & Bentler, 1999). The RMSEA and WRMR are considered absolute fit indexes and assess how well the specified model replicates the observed patterns in the data (Hu & Bentler, 1999).

Additionally, Mplus provides modification indices to assist in evaluating model fit (Muthén & Muthén, 1998-2007). Different from the model fit indicators noted above that provide an evaluation of global model fit, modification indices are useful in evaluating models for specific points of ill fit (Brown, 2006). A modification index for a specific parameter notes the expected decrease in the overall model Chi-square test statistic (i.e., how the model overall fit would improve) if the particular parameter was adopted or fixed in the specified model (Brown, 2006). Models that adequately represent the observed patterns in the data, or have good fit, should produce modification indices that are small in magnitude or less than 4.00 (Brown, 2006). Modification indices with values

greater than 4.00 were evaluated in the study models to determine if there were particular areas of poor fit (Brown, 2006).

Finally, the key proposed structural paths, both direct and indirect, were assessed to determine whether they provided support for the study hypotheses. Standardized linear regression coefficients were used to report the coefficients for the key structural paths for all continuous observed indicators and latent variables, except for the dichotomous dependent variables. Physical abuse, running away, and being prostituted as a minor were dichotomous variables, and consequently the estimate for these variables took the form of a conditional probability based on the value(s) of predictor variables (Liao, 1994). Probit coefficients were reported for those relationships. Therefore, the magnitudes of the coefficients corresponding to continuous or latent variables were not directly comparable to the coefficients corresponding to dichotomous variables. All of the unstandardized coefficients, standardized coefficients, and standard errors for all model estimates were reported.

Weighted Least Squares Mean and Variance Adjusted Estimator

As the measurement models and the structural models proposed for this study included observed indicators that were ordinal and dichotomous, the analyses of all models relied on an estimator that was suited to such data. The weighted least squares mean and variance adjusted (WLSMV) estimator available in the Mplus program (Muthén & Muthén, 1998-2007) was utilized because of its potential to fit models containing ordinal and dichotomous variables (i.e., noncontinuously distributed measures).

Most structural equation models are estimated using a maximum likelihood (ML) estimation method that rests on key assumptions including the assumption of multivariate normal distributions among the indicators within the model (Brown, 2006; Kline, 2005). However, the WLSMV estimation method used in the analyses of this study does not make the assumption of multivariate normality (Kline, 2005; Muthén, 1993). Using the WLSMV estimator eliminates the need to use other remedial strategies for indicator non-normality, such as bootstrapping, item parceling, or data transformation (Brown, 2006).

Specifically, the WLSMV estimator is designed to provide more accurate parameter and standard error estimates, as well as chi-square values, for situations in which data are coarsely categorized and/or non-normally distributed (DiStefano & Hess, 2005; Flora & Curran, 2004; Muthén, 1993; Muthén, du Toit, & Spisic, 1997). WLSMV adjusts the estimates by employing a weighting process that uses the diagonal of the weight matrix in the estimation rather than the full weight matrix, resulting in robust standard errors for use in the hypothesis tests (DiStefano & Hess, 2005; Flora & Curran, 2004; Muthén et al., 1997).

In simulation studies the WLSMV estimator has been shown to perform well, producing accurate test statistics, parameter estimates, and standard errors that are much less vulnerable to the effects of increasing model complexity and decreasing sample size in comparison to other methods of estimation (Brown, 2006; Flora & Curran, 2004). Further unpublished simulation studies conducted by Muthén indicated that when using the WLSMV estimator, sample sizes of 150 to 200 were sufficient for medium sized models, e.g., models with 10 to 15 indicators (cited in Brown, 2006, p. 389; see

also, Bentler & Chou, 1987). With sample sizes of 200, WLSMV has been shown to perform well with data that includes variables with floor or ceiling effects (Brown, 2006). Therefore, the use of the WLSMV estimator was considered to be suitable for this study based on the study sample size of 174 and the current study's assessment of medium sized models incorporating up to 15 indicators, including dichotomous and ordered categorical variables.

When using the WLSMV estimator with censored or categorical outcomes, Mplus handles missing data by using a complex method of pair-wise deletion (Muthén & Muthén, 1998-2007). The process of considering missing data that is used by Mplus with the WLSMV estimator entails four steps (Muthén & Muthén, 1998-2007). The four steps include univariate probit regression of all cases with data, bivariate probit regression with all available paired data, estimation of the weight matrix, and fitting the model using weighted least squares. The first two steps are similar to the missing at random technique for missing data used with the maximum likelihood (ML) estimator in Mplus, thereby the process results in a superior handling of missing data than the use of simple pair-wise deletion (Muthén & Muthén, 1998-2007). Although this technique for handling missing data is not considered to be as effective as others offered by Mplus that are not applicable when using the WLSMV estimator, the use the WLSMV estimator in the study models was considered essential despite this limitation (Brown, 2006; Muthén & Muthén, 1998-2007). Mplus also provides information on missingness within the models by reporting the proportion of data present and the availability of paired data between each of the 15 indicators included in the models (Muthén & Muthén, 1998-2007). The 15 indicators included in the models had minimal missing data (see Table 3 in Chapter 6) and only minor losses in covariance coverage were noted in the models.

Different from structural equation modeling or confirmatory factor analysis using continuous variables, the residual variances of categorical indicators are not identified nor estimated when using the WLSMV estimator because the observed variances of the indicators are not analyzed (Brown, 2006). In this type of analysis, measurement error for categorical indicators reflects the remainder of 1 minus the squared standardized item loading (Brown, 2006).

The WLSMV estimator could not be used for analyzing interaction effects within structural equation models, as Mplus computes interaction effects using the ML estimator (Muthén & Muthén, 1998-2007). Therefore, it was necessary to analyze the theorized moderating effects of relational shame using binary logistic regression. The analyses of the interaction effects are described in the next section.

Supplementary Models

Two of the study hypotheses incorporated the variable measuring relational shame. First, it was hypothesized that relational shame would be a consequence of experiencing child maltreatment, including child neglect, child physical abuse, and juvenile sexual victimization. Second, it was theorized that relational shame, resulting from childhood victimization experiences, would detrimentally inflate vulnerability to victimization in sex trafficking for escaping girls, i.e., girls who had run away or who had initiated drug or alcohol use to escape the pain of abuse.

Based on the timing and content of the interviews with the participants, no information regarding the onset of relational shame was collected and available in the data. However, the exploration of relational shame as a consequence of child maltreatment and as an amplifying source of vulnerability to being prostituted as a minor

was pursued based on previous research and the theoretical framework of the study. Consequently, the effects of relational shame were explored through the use of supplementary structural equation models to prevent the temporal ambiguity of this variable from introducing a potential threat to internal validity into the primary structural models (Shadish et al., 2002).

The supplementary models were analyzed in an identical manner as the primary structural models using the same model estimator, tests of model fit, and reporting of standardized linear regression coefficients or probit coefficients for the key structural paths. The supplementary models incorporating the relational shame variable were useful for testing the hypothesis that relational shame was more likely to be experienced by girls who had been maltreated than by girls who had not been maltreated.

Lastly, in order to test for the theorized interaction or moderating effects of relational shame, two binary logistic regression analyses were conducted. In the first logistic regression, being prostituted as a minor was regressed on running away, relational shame, and an interaction term of those two independent variables (Jaccard, 2001). In the second analysis, being prostituted as a minor was regressed on initial age of drug or alcohol use, relational shame, and an interaction term of those two independent variables.

Chapter 6

Results

The primary objective of this study is to identify and assess a pathway into victimization by child sex trafficking in prostitution, specifically exploring the impact of a family context characterized by caregiver strain and child maltreatment and the consequences of subsequent individual risk-inflating responses to such strain. Prior to assessing the proposed structural equation models, preliminary analyses were conducted. First, the descriptive statistics of the study sample were examined to gain greater understanding of the data being utilized to test the suitability of the proposed models. In addition, bivariate analyses were computed to examine the strength, direction, and statistical significance of the associations between the 15 observed variables selected for inclusion in the structural equation models with the objective of evaluating the necessity and appropriateness of conducting further analysis.

Preliminary Analyses

Descriptive statistics of the observed variables included in the study are summarized in Table 3. Due to the original data collection procedures and matched research design (i.e., matching to an original sample of all child sexual abuse victims), the percentage of the sample that reported sexual victimization as a minor is not reflective of general population rates (Briere & Elliot, 2003). Twenty-six percent of the sample reported no juvenile sexual victimization. Fifty-five percent reported juvenile

sexual victimization, either during childhood or during adolescence. Of those reporting sexual victimization during one life stage (i.e., during childhood or during adolescence), 85% reported victimization during childhood or before the age of 13 and 15% reported sexual victimization during adolescence or between 13 and 17 years of age. Eighteen percent of the sample reported being sexually victimized during both childhood and adolescence.

Table 3. *Descriptive Statistics of Study Variables (N= 174)*

Variables	M	SD	Range	Proportion of Missing Data
1. Mother with a drinking problem	.30	.46	0-1	.03
2. Mother with a drug problem	.18	.38	0-1	.02
3. Mother with a mental health problem	.39	.49	0-1	.02
4. Domestic violence in home	.45	.50	0-1	.00
5. Lack of supervision	.35	.48	0-1	.03
6. Lack of food	.11	.32	0-1	.03
7. Lack of medical care	.07	.25	0-1	.03
8. Poor care due to drug or alcohol use	.13	.33	0-1	.03
9. Lack of love	.42	.49	0-1	.03
10. Child physical abuse	.09	.29	0-1	.11
11. Juvenile sexual victimization	.92	.67	0-2	.00
12. Ran away	.40	.49	0-1	.00
13. Initial age of drug or alcohol use	14.35	3.35	4-26	.08
14. Relational shame	1.16	1.65	0-6	.01
15. CST-prostitution	.12	.33	0-1	.00

Other key descriptors of the study sample were the presence and level of the observed variables considered to be risk-inflating responses to strain. Potential risk-inflating behaviors included in the model were running away from home and the initial age of drug or alcohol use. The self-reported level of relational shame was included in the model as a possible risk-inflating emotional response to strain. Forty percent of the participants reported that they ran away from home before they reached 18 years of age. The average reported initial age of drug or alcohol use was 14.3 years old and the most common initial age was 16 years old. The range of ages was from 4 years old to 26 years old, with 25% reporting that they began using drugs or alcohol by the age of 13, 50% by the age of 14, and 75% by the age of 16. Lastly, the average level of relational shame was 1.16 out of a possible score of 6 on the scale. Fifty-six percent of the participants reported no relational shame, 31% reported lower levels of relational shame (scored 1-3), and 13% reported higher levels of relational shame (scored from 4-6).

Results for all bivariate analyses are displayed in Table 4. Statistically significant relationships were found among many of the observed variables, with small to moderate effect sizes. For example, the indicators of caregiver strain were significantly related to the various types of child maltreatment. The types of child maltreatment were negatively related to the initial age of drug or alcohol use and positively related to running away. Relational shame was significantly related to nine of the variables, including several indicators of child neglect and juvenile sexual victimization. Being prostituted as a minor was significantly associated with seven of the variables, including juvenile sexual victimization, running away, initial age of drug or alcohol use, and relational shame.

Table 4. *Bivariate Correlations of All Study Variables (N = 174)*

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Mother w/drinking problem	-														
2. Mother w/drug problem	.20*	-													
3. Mother w/mental health problem	.37**	.20**	-												
4. Domestic violence	.25**	.13	.37**	-											
5. Lack of supervision	.24**	.23**	.21**	.12	-										
6. Lack of food	.15	.28**	.08	.21**	.29**	-									
7. Lack of medical care	.15	.20*	.09	.15	.31**	.53**	-								
8. Poor care - drugs/alcohol	.36**	.35**	.26**	.20**	.29**	.43**	.34**	-							
9. Lack of love	.30**	.13	.41**	.36**	.33**	.27**	.26**	.41**	-						
10. Child physical abuse	.14	.08	.24**	.10	.20*	.12	.11	.37**	.31**	-					
11. Juvenile sex victimization	.17*	.17*	.22**	.27**	.25**	.16*	.18*	.16*	.20**	.19*	-				
12. Ran away	.05	.18*	.14	.18*	.41**	.21**	.22**	.20**	.34**	.18*	.40**	-			
13. Initial age of drug/alcohol	-.13	-.19*	-.22**	-.14	-.23**	-.16*	-.19*	-.16*	-.30**	-.23**	-.26**	-.29**	-		
14. Relational shame	.10	.12	.21**	.21**	.32**	.08	.23**	.15	.31**	.13	.27**	.34**	-.24**	-	
15. CST-prostitution	.08	.16*	.10	.06	.09	.17*	.13	.15	.16*	.16	.26**	.20**	-.20*	.28**	-

* $p < .05$, ** $p < .01$ Note: Coefficients were computed using phi or point-biserial correlation.

In order to further examine the relationships of several key study variables additional bivariate analyses using the Chi-square test of independence were conducted. Tables 5-8 display the associations of juvenile sexual victimization, running away, initial age of drug or alcohol use, and the reported level of relational shame with the study outcome variable, being prostituted as a minor.

Table 5. *Cross-Tabulations of Prostituted as a Minor by Juvenile Sexual Victimization*

		Juvenile Sexual Victimization			Total
		None	Either During Childhood or Adolescence	Both	
Prostituted Minor	No	45 (98%)	85 (88%)	23 (72%)	153 (88%)
	Yes	1 (2%)	11 (12%)	9 (28%)	21 (12%)
Total		46 (26%)	96 (55%)	32 (18%)	174 (100%)

Note: $\chi^2(2) = 12.05, p < 0.01$

As shown in Table 5, youth who experienced juvenile sexual victimization were more likely to have reported being prostituted as a minor, $\chi^2(2) = 12.05, p < 0.01$. Notably, only one participant or 2% of those who reported no juvenile sexual victimization also reported being prostituted as a minor. In contrast, 11 participants or 12% of those who reported being sexually victimized as a child or as an adolescent reported being prostituted as a minor. Furthermore, nine participants or 28% of those

who reported “double” sexual victimization or sexual victimization during both childhood and adolescence reported that they were prostituted as a minor. Importantly, the majority of those who experienced juvenile sexual victimization did not report being prostituted as a minor. Nevertheless, these results suggest that being sexually victimized as a minor may increase the likelihood of further victimization in prostitution.

Table 6. *Cross-Tabulations of Prostituted as a Minor by Running Away (N=174)*

		Running Away		Total
		No	Yes	
Prostituted Minor	No	97 (93%)	56 (80%)	153 (88%)
	Yes	7 (7%)	14 (20%)	21 (12%)
Total		104 (60%)	70 (40%)	174 (100%)

Note: $\chi^2(1) = 6.94, p < 0.01$

The results in Table 6 indicate that girls who ran away were more likely to have been prostituted than those who did not run away, $\chi^2(1) = 6.94, p < 0.01$. Twenty percent of the girls who ran away reported being prostituted; comparatively, only 7% of those who did not run away reported being prostituted. Although only 40% of the full sample reported running away as a minor (see Table 3), twice as many youth who ran away reported being prostituted compared to the number of non-runaways who reported being prostituted (14 participants vs. 7 participants). Once more, the majority of girls in

the sample, whether they ran away or not, did not report being prostituted as a minor. Nevertheless, these results suggest that running away as a minor may increase the likelihood of victimization in prostitution.

Table 7. *Difference in Means of Initial Age of Drug/Alcohol Use (N=160)*

		Initial Age of Drug or Alcohol Use		
		Count	Mean	SD
Prostituted Minor	No	141	14.6	3.33
	Yes	19	12.5	2.98

Note: $t(158) = 2.55, p < 0.05$

The results displayed in Table 7 indicate that there was a significant difference in the average age of initial drug or alcohol use specified by those who reported being prostituted and those who did not, $t(158) = 2.55, p < 0.05$. The average age of initiation of drug or alcohol use for the whole sample was 14.4 (see Table 3), non-prostituted girls' average age at initial drug or alcohol use was 14.6, and the prostituted girls' average age at initial drug or alcohol use was 12.5.

Table 8. Cross-Tabulations of Prostituted as a Minor by Relational Shame (N=172)

		Level of Relational Shame			Total
		None	Low	High	
Prostituted Minor	No	92 (95%)	44 (83%)	15 (68%)	151 (88%)
	Yes	5 (5%)	9 (17%)	7 (32%)	21 (12%)
Total		97 (56%)	53 (31%)	22 (13%)	172 (100%)

Note: $\chi^2 (2) = 13.52, p < 0.01$

To simplify the examination of cross tabulations of relational shame and being prostituted as a minor, the ordinal variable measuring relational shame was condensed from seven levels into three levels. The participants in the study who reported no relational shame (scored 0) were coded “0”, those who reported low levels of relational shame (scores ranging from 1-3) were coded “1”, and those who reported high levels of relational shame (scores ranging from 4-6) were coded “3”. In the sample, 97 participants or 56% reported no shame, 53 participants or 31% reported low levels of shame, and 22 participants or 13% reported high levels of shame.

As shown on Table 8, participants who reported higher levels of relational shame were more likely to have reported being prostituted as a minor, $\chi^2 (2) = 13.52, p < 0.01$. Notably only five participants or 5% of the sample that reported no relational shame reported being prostituted as a minor. In contrast, 17% of the participants with low levels of relational shame reported being prostituted as a minor and 33% of the participants

with high levels of relational shame reported being prostituted as a minor. These results indicate that relational shame may increase the likelihood of victimization in prostitution.

In summary, the results of the preliminary analyses indicated that caregiver strain was associated with the occurrence of child maltreatment. Additionally, associations were found between the various types of child maltreatment and running away, initial age of drug or alcohol use, and relational shame. Furthermore, variables considered to be risk-inflating behavioral responses to strain (i.e., running away, initial age of drug or alcohol use) were both found to have a significant effect on the likelihood of having been prostituted as a minor. Lastly, the level of relational shame was found to influence the likelihood of having been prostituted as a minor. This collection of findings adequately supports the study assumptions that caregiver strain, the strain of child maltreatment, and risk-inflating responses to strain converge, elevating the likelihood of victimization in child sex trafficking in prostitution, and thereby provided justification for further analysis of the data utilizing structural equation modeling.

Multivariate Analyses

As noted in Chapter 5, the analytic strategy outlined for this study included the identification and assessment of four distinct models designed to explain victimization in child sex trafficking in prostitution. The first model included only child neglect as the form of child maltreatment to be assessed, the second model featured only child physical abuse, the third model only juvenile sexual victimization, and the fourth model incorporated all three forms of child maltreatment. The assessments of each of the proposed models specified: (a) the measurement model, (b) the structural equation model, and (c) the supplementary model exploring the effect of relational shame (see

Analytic Strategy in Chapter 5). The results from the analyses of the four models are reviewed sequentially in the sections that follow.

Child Neglect Model

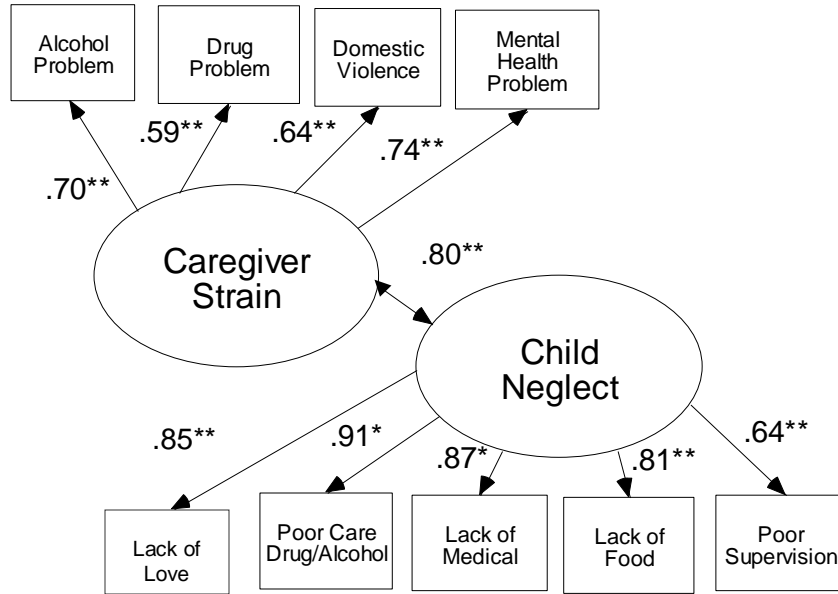


Figure 3. Child Neglect Measurement Model

Note: * $p < 0.05$, ** $p < 0.01$, two-tailed

Note: $\chi^2(16)=26.57$, $p=.05$; NC = 1.66; CFI = .97; TLI = .97; RMSEA = .06; WRMR=.80

As shown in Figure 3, the measurement model for the two latent variables incorporated into the child neglect model evidenced an adequate fit to the data. Although the Chi-square was narrowly significant, $\chi^2(16) = 26.57$, $p = .05$, all other indices demonstrated good fit (NC = 1.66; CFI = .97; TLI = .97; RMSEA = .06; WRMR =

.80). The loadings of the indicators on the latent variables were statistically significant and strong, ranging from .64 to .91. As displayed in Figure 3, MPlus also provided the correlation coefficient between the two identified latent variables. These results provided support for the measurement model, which suggests a reasonable foundation for testing structural relationships.

The structural equation model featuring child neglect evidenced adequate fit to the data with a non-significant Chi-square, $\chi^2(27) = 36.55, p = .10$ (see Table 9). All other indices demonstrated good model fit (NC = 1.35; CFI = .97; TLI = .97; RMSEA = .05; WRMR = .78). The sole modification index (MI) with a value greater than 4.00 was a possible modification of *lack of medical care* with *lack of food* (MI = 4.99). The suggested modification of a parameter allowing these two indicators of child neglect to co-vary was the only MI over 4.00 noted in any of models included in the study. As this modification would not make substantive changes in the models and the value was relatively small, such modification to the models was not performed.

Next, the structural paths linking key latent and observed variables relevant to the child neglect model hypotheses were examined to assess the proposed relationships (see Figure 4). Standardized linear regression coefficients are reported for all dependent variables in the model except for the dichotomous variables included in the model. Probit coefficients are reported for those relationships. The unstandardized coefficients, standardized coefficients, and standard errors for all model estimates are reported in Table 9.

Table 9. *Unstandardized, Standardized, and Critical Ratio Values for the Child Neglect Model Displayed in Figure 4 (Standard Errors in Parentheses; N = 174)*

Parameter Estimate	Unstd. Coeff./Probit	Std. Coeff.	Critical Ratio (Z)
Measurement Model Estimates			
Strain by Domestic Violence	.84 (.30)	.64	2.75
Strain by Alcohol Problem	1.20 (.40)	.70	2.81
Strain by Drug Problem	.88 (.33)	.59	2.65
Strain by Mental Health Problem	1.32 (.37)	.74	3.54
Neglect by Poor Supervision	.61 (.21)	.64	2.94
Neglect by Lack of Food	1.65 (.56)	.81	2.94
Neglect by Lack of Medical	2.14 (.96)	.87	2.22
Neglect by Poor Care because of Drug/Alcohol Use	2.58 (1.06)	.91	2.44
Neglect by Lack of Love	1.91 (.66)	.85	2.91
Strain with Neglect	.56 (.18)	.80	3.05
Structural Model Estimates			
Neglect on Caregiver Strain	.93 (.31)	.76	2.99
Running Away on Neglect	.80 (.23)	.62	3.51
Initial Age of D/A Use on Neglect	-1.46 (.42)	-.44	3.46
Prostituted Minor on Running Away	.34 (.17)	.37	1.96
Prostituted Minor on Age of D/A	-.10 (.05)	-.29	1.90
Indirect Effect Prostituted Minor on Caregiver Strain	.38 (.17)	.27	2.25
Indirect Effect Prostituted Minor on Neglect	.41 (.18)	.35	2.35

Note: $\chi^2(27)=36.55, p=.10$; NC=1.35; CFI=.97; TLI=.97; RMSEA=.05; WRMR=.78

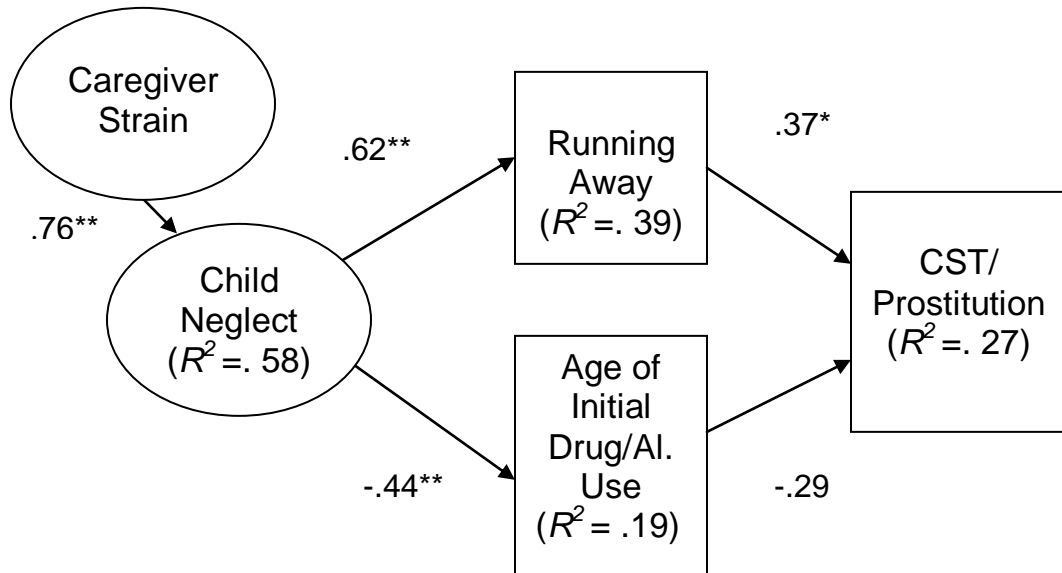


Figure 4. Child Neglect Structural Equation Model

Note: * $p < 0.05$, ** $p < 0.01$, two-tailed

Note: $\chi^2(27) = 36.55$, $p = .10$; NC = 1.35; CFI = .97; TLI = .97; RMSEA = .05; WRMR = .78

Caregiver strain was positively related to child neglect with a large direct effect size (*std. coefficient* = .76, $p < .01$). The combined indirect effect of caregiver strain on being prostituted as a minor as mediated by neglect, running away, and initial age of drug or alcohol use revealed a significant and positive relationship with a moderate effect size (*std. coefficient* = .27, $p < .05$).

Child neglect was positively related to running away with a large effect size (*std. coefficient* = .62, $p < .01$) and negatively related to age of initial drug or alcohol use with a moderate effect size (*std. coefficient* = -.44, $p < .01$). The combined indirect effect of child neglect on being prostituted as a minor as mediated by running away and age of initial drug or alcohol use revealed a significant, positive relationship with a moderate effect size (*std. coefficient* = .35, $p < .05$).

Running away had a significant and positive direct relationship with being prostituted as a minor with a moderate effect size (*std. coefficient* = .37, $p < .05$). Age of initial drug or alcohol use had a negative relationship with being prostituted as a minor (*std. coefficient* = -.29), with a critical value slightly lower than the predetermined significance level for the analysis ($z = 1.90$, $p = .06$).

The standardized coefficients of each key path and the proportion of variance explained in the endogenous variables are noted in Figure 3 and were as follows: child neglect, $R^2 = .58$; running away, $R^2 = .39$; initial age of drug or alcohol use, $R^2 = .19$; and being prostituted as a minor, $R^2 = .27$. In the child neglect model the structural paths connecting the key latent and observed variables supported the study hypotheses, with only one proposed path coefficient failing to achieve the predetermined significance value for a two-tailed hypothesis test.

The final step in the analysis of the child neglect model included the exploratory examination of the origins and effects of relational shame (see Analytic Strategy in Chapter 5). As planned, a supplementary child neglect structural equation model was analyzed to examine: (1) the effects of child neglect on the level of reported relational shame; and (2) to explore the effects of relational shame on the likelihood of being

prostituted as a minor, seeking to discern whether relational shame may intensify the effect of running away and the initial age of drug or alcohol use on being prostituted as a minor. The child neglect model including relational shame also evidenced adequate fit to the data with a non-significant Chi-square, $\chi^2(31) = 41.96, p = .09$. The other indices demonstrated good model fit (NC = 1.20; CFI = .97; TLI = .97; RMSEA = .05; WRMR = .79).

The structural paths linking key latent and observed variables relevant to the child neglect model hypotheses were again examined to assess the proposed relationships. Child neglect was positively related to relational shame with a large effect size (*std. coefficient* = .50, $p < .01$). The associations of child neglect with running away (*std. coefficient* = .64, $p < .01$) and initial age of drug or alcohol use (*std. coefficient* = -.44, $p < .01$) were minimally affected by the inclusion of relational shame in the model. The combined indirect effect of caregiver strain on being prostituted as a minor as mediated by neglect, running away, initial age of drug/alcohol use, and relational shame was minimally increased in this supplementary model (*std. coefficient* = .30, $p < .05$). The combined indirect effect of child neglect on being prostituted as a minor as mediated by running away, age of initial drug or alcohol use, and relational shame was also minimally increased by the addition of relational shame (*std. coefficient* = .40, $p < .05$).

Relational shame had a significant and positive direct relationship with being prostituted as a minor with a moderate effect size (*std. coefficient* = .37, $p < .05$). Running away no longer had a significant relationship with being prostituted as a minor with a reduced effect size (*std. coefficient* = .19). Also, the effect size of age of initial drug or alcohol use on the likelihood of being prostituted as a minor decreased (*std.*

coefficient = -.21). The proportion of variance explained of being prostituted as a minor in this supplementary model was $R^2 = .31$.

Child Physical Abuse Model

As shown in Figure 5, the measurement model for the latent variable, caregiver strain, contained in the child physical abuse model evidenced an adequate fit to the data. The Chi-square was significant, $\chi^2(2) = .34$, $p = .84$, all other indices demonstrated good fit (NC = .17; CFI = 1.00; TLI = 1.05; RMSEA = .00; WRMR = .16). Three of the four loadings of the indicators on the latent variable were statistically significant, ranging from .44 to .87. One indicator, mother with a mental health problem, was not statistically significant, yet showed the highest loading among the four observed indicators, $r = .87$, $z = 1.77$, $p = .07$. These results provided support for the measurement model, which suggests a reasonable foundation for testing structural relationships.

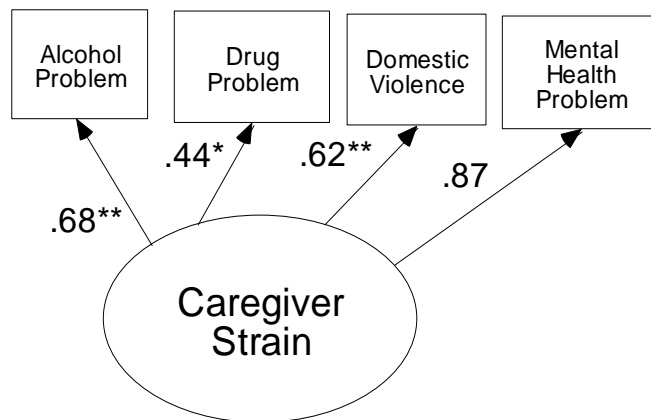


Figure 5. Child Physical Abuse and Juvenile Sexual Victimization Measurement Model

Note: * $p < 0.05$, ** $p < 0.01$, two-tailed

Note: $\chi^2(2) = .34$, $p = .84$; NC = .17; CFI = 1.00; TLI = 1.05; RMSEA = .00; WRMR = .16

Table 10. *Unstandardized, Standardized, and Critical Ratio Values for Child Physical Abuse Model Displayed in Figure 6 (Standard Errors in Parentheses; N = 174)*

Parameter Estimate	Unstd. Coeff./Probit	Std. Coeff.	Critical Ratio (Z)
Measurement Model Estimates			
Strain by Domestic Violence	.84 (.31)	.62	2.68
Strain by Alcohol Problem	1.19 (.45)	.68	2.68
Strain by Drug Problem	.63 (.27)	.44	2.34
Strain by Mental Health Problem	2.21 (1.25)	.87	1.77
Structural Model Estimates			
Child Physical Abuse on Strain	.88 (.31)	.56	2.82
Running Away on Child Physical Abuse	.56 (.15)	.56	3.82
Initial Age of D/A Use on Child Physical Abuse	-1.51 (.32)	-.55	4.67
Prostituted Minor on Running Away	.30 (.16)	.32	1.90
Prostituted Minor on Age of D/A	-.10 (.05)	-.28	1.89
Indirect Effect Prostituted Minor on Caregiver Strain	.28 (.13)	.19	2.11
Indirect Effect Prostituted Minor on Child Physical Abuse	.32 (.12)	.33	2.63

Note: $\chi^2(14) = 10.57, p = .72$; NC = .78; CFI=1.00; TLI=1.04; RMSEA=.00; WRMR=.56

As shown in Table 10, the structural equation model featuring child physical abuse evidenced adequate fit to the data with a non-significant Chi-square, $\chi^2(14) = 10.57, p = .72$. All of the other indices demonstrated good model fit (NC = .78; CFI = 1.00; TLI = 1.04; RMSEA = .00; WRMR = .56).

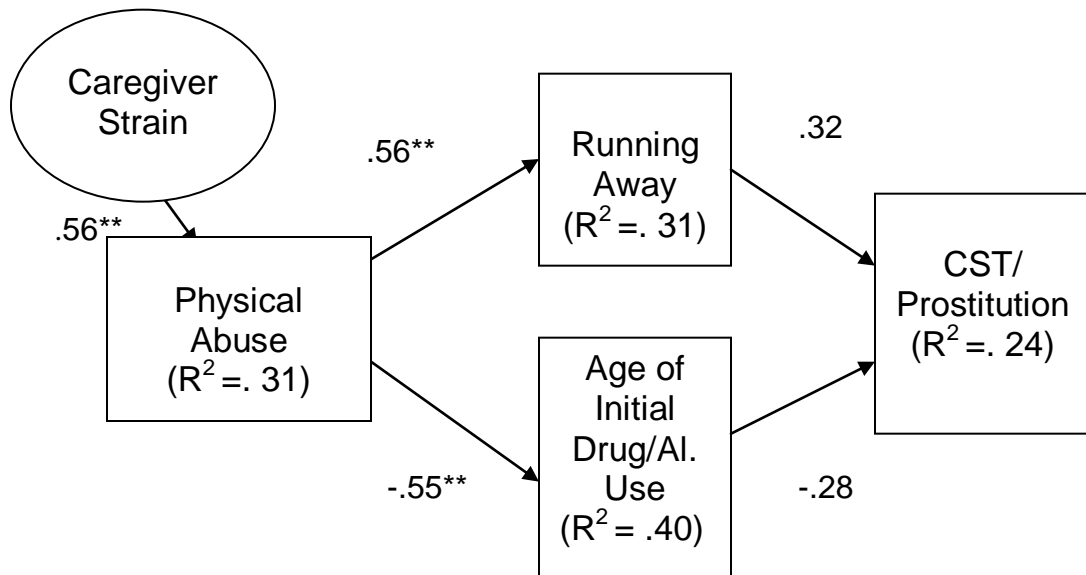


Figure 6. Child Physical Abuse Structural Equation Model

Note: * $p < 0.05$, ** $p < 0.01$, two-tailed

Note: $\chi^2(14) = 10.57, p = .72$; NC = .78; CFI = 1.00; TLI = 1.04; RMSEA = .00; WRMR = .56

Next, the structural paths linking key latent and observed variables relevant to the child neglect model hypotheses were examined to assess the proposed relationships (see Figure 6). As mentioned in the results of the previous model, standardized linear regression coefficients are reported for all dependent variables in the model except for the dichotomous variables. Running away and being prostituted as a minor are both

dichotomous variables. Therefore, probit coefficients are reported for those relationships (Liao, 1994). The unstandardized coefficients, standardized coefficients, and standard errors for all model estimates are reported in Table 10.

Caregiver strain was positively related to child physical abuse with a large direct effect size (*std. coefficient* = .56, $p < .01$). The combined indirect effect of caregiver strain on being prostituted as a minor as mediated by child physical abuse, running away, and initial age of drug or alcohol use revealed a significant and positive relationship with a moderate effect size (*std. coefficient* = .19, $p < .05$).

Child physical abuse was positively related to running away with a large effect size (*std. coefficient* = .56, $p < .01$) and negatively related to age of initial drug or alcohol use with a large effect size (*std. coefficient* = -.55, $p < .01$). The combined indirect effect of child physical abuse on being prostituted as a minor as mediated by running away and age of initial drug or alcohol use revealed a significant, positive relationship with a moderate effect size (*std. coefficient* = .33, $p < .05$).

Running away had a positive direct relationship with being prostituted as a minor with a moderate effect size (*std. coefficient* = .32) with a critical value slightly lower than the predetermined significance level for the analysis ($z = 1.90$, $p = .06$). Age of initial drug or alcohol use had a negative relationship with being prostituted as a minor (*std. coefficient* = -.28), with a critical value slightly lower than the predetermined significance level for the analysis ($z = 1.89$, $p = .06$).

The standardized coefficients of each key path and the proportion of variance explained in the endogenous variables are noted in Figure 5 and were as follows: child physical abuse, $R^2 = .31$; running away, $R^2 = .31$; initial age of drug or alcohol use, $R^2 =$

.40; and being prostituted as a minor, $R^2 = .24$. In the child physical abuse model the structural paths connecting the key latent and observed variables supported the study hypotheses, with two of the proposed path coefficients narrowly failing to achieve the predetermined significance value for a two-tailed hypothesis test.

The final step in the analysis of the child physical abuse model included the exploratory examination of the origins and effects of relational shame (see Analytic Strategy in Chapter 5). As planned, a supplementary child physical abuse structural equation model was analyzed to examine: (1) the effects of child physical abuse on the level of reported relational shame; and (2) to explore the effects of relational shame on the likelihood of being prostituted as a minor, seeking to discern whether relational shame may intensify the effect of running away and the initial age of drug or alcohol use on being prostituted as a minor. The child physical abuse model including relational shame also evidenced adequate fit to the data with a non-significant Chi-square, $\chi^2(18) = 16.71, p = .54$. The other indices demonstrated good model fit (NC = .93; CFI = 1.00; TLI = 1.01; RMSEA = .00; WRMR = .63).

The structural paths linking key latent and observed variables relevant to the child neglect model hypotheses were again examined to assess the proposed relationships. Child physical abuse was positively related to relational shame with a large effect size (*std. coefficient* = .54, $p < .01$). The associations of child physical abuse with running away (*std. coefficient* = .62, $p < .01$) and initial age of drug or alcohol use (*std. coefficient* = -.52, $p < .01$) were minimally affected by the inclusion of relational shame in the model. The combined indirect effect of caregiver strain on being prostituted as a minor as mediated by child physical abuse, running away, initial age of

drug/alcohol use, and relational shame was minimally increased in this supplementary model (*std. coefficient* = .23, $p < .05$). The combined indirect effect of child physical abuse on being prostituted as a minor as mediated by running away, age of initial drug or alcohol use, and relational shame was also minimally increased by the addition of relational shame to the model (*std. coefficient* = .41, $p < .01$).

Relational shame had a significant and positive direct relationship with being prostituted as a minor with a moderate effect size (*std. coefficient* = .35, $p < .05$). The effect size of the relationship of running away with being prostituted as a minor was reduced and non-significant (*std. coefficient* = .19). Also, the effect size of age of initial drug or alcohol use on the likelihood of being prostituted as a minor decreased (*std. coefficient* = -.18). The proportion of variance explained of being prostituted as a minor in this supplementary model was $R^2 = .30$.

Juvenile Sexual Victimization Model

As shown in Figure 5, the measurement model for the latent variable, caregiver strain, incorporated into the juvenile sexual victimization model evidenced an adequate fit to the data. The Chi-square was significant, $\chi^2(2) = .34$, $p = .84$, all other indices demonstrated good fit (NC = .17; CFI = 1.00; TLI = 1.05; RMSEA = .00; WRMR = .16). Three of the four loadings of the indicators on the latent variable were statistically significant, ranging from .44 to .87. One indicator, mother with a mental health problem, was not statistically significant, yet showed the highest loading among the four observed indicators, $r = .87$, $z = 1.77$, $p = .07$. These results provided support for the measurement model, which suggests a reasonable foundation for testing structural relationships.

Table 11. *Unstandardized, Standardized, and Critical Ratio Values for Juvenile Sexual Victimization Model Displayed in Figure 7 (Standard Errors in Parentheses; N = 174)*

Parameter Estimate	Unstd. Coeff./Probit	Std. Coeff.	Critical Ratio (Z)
Measurement Model Estimates			
Strain by Domestic Violence	.84 (.31)	.62	2.68
Strain by Alcohol Problem	1.19 (.45)	.68	2.68
Strain by Drug Problem	.63 (.27)	.44	2.34
Strain by Mental Health Problem	2.21 (1.25)	.87	1.77
Structural Model Estimates			
Sexual Victimization on Strain	.67 (.20)	.52	3.41
Running Away on Sexual Victimization	.69 (.13)	.63	5.43
Initial Age of D/A Use on Sexual Victimization	-1.21 (.22)	-.43	5.62
Prostituted Minor on Running Away	.37 (.15)	.40	2.50
Prostituted Minor on Age of D/A	-.10 (.05)	-.28	1.87
Indirect Effect Prostituted Minor on Caregiver Strain	.26 (.12)	.19	2.19
Indirect Effect Prostituted Minor on Sexual Victimization	.39 (.13)	.38	2.95

Note: $\chi^2(15) = 18.07$, $p = .26$; NC = 1.20; CFI = .98; TLI = .98; RMSEA = .03; WRMR = .69

As shown in Table 11, the structural equation model featuring juvenile sexual victimization evidenced adequate fit to the data with a non-significant Chi-square, $\chi^2(15) =$

18.07, $p = .26$. The other model fit indices also demonstrated good model fit (NC = 1.20; CFI = .98; TLI = .98; RMSEA = .03; WRMR = .69).

Next, the structural paths linking key latent and observed variables relevant to the juvenile sexual victimization model hypotheses were examined to assess the proposed relationships (see Figure 7). The unstandardized coefficients, standardized coefficients, and standard errors for all model estimates are reported in Table 11.

Caregiver strain was positively related to juvenile sexual victimization with a large direct effect size (*std. coefficient* = .52, $p < .01$). The combined indirect effect of caregiver strain on being prostituted as a minor as mediated by juvenile sexual victimization, running away, and initial age of drug or alcohol use revealed a significant and positive relationship with a small effect size (*std. coefficient* = .19, $p < .05$).

Juvenile sexual victimization was positively related to running away with a large effect size (*std. coefficient* = .63, $p < .01$) and negatively related to age of initial drug or alcohol use with a moderate effect size (*std. coefficient* = -.42, $p < .01$). The combined indirect effect of juvenile sexual victimization on being prostituted as a minor as mediated by running away and age of initial drug or alcohol use revealed a significant, positive relationship with a moderate effect size (*std. coefficient* = .38, $p < .01$).

Running away had a significant and positive direct relationship with being prostituted as a minor with a moderate effect size (*std. coefficient* = .40, $p < .05$). Age of initial drug or alcohol use had a negative relationship with being prostituted as a minor (*std. coefficient* = -.29), with a critical value slightly lower than the predetermined significance level for the analysis ($z = 1.87$, $p = .06$).

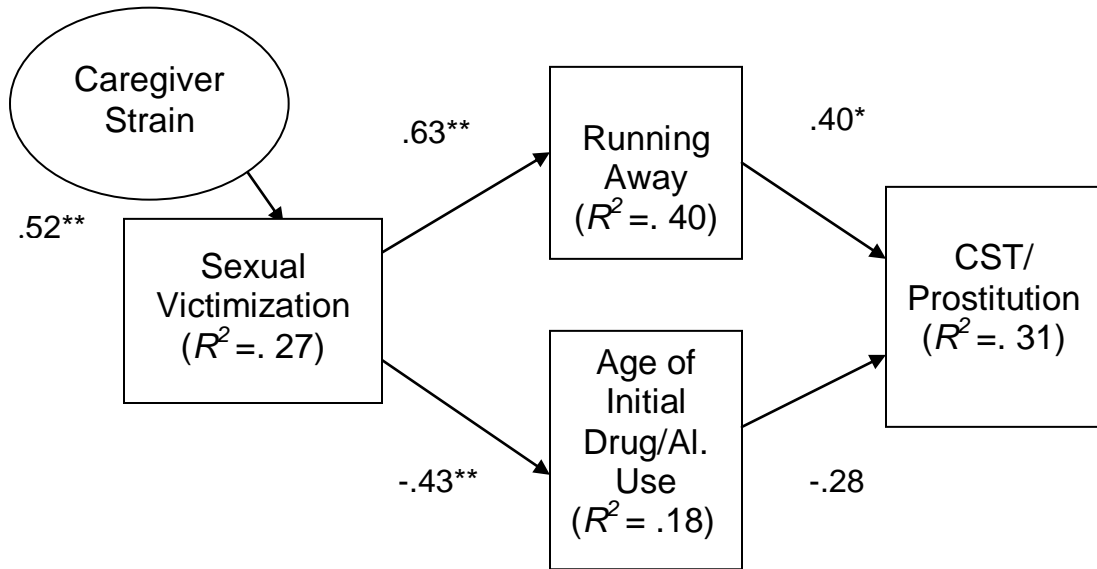


Figure 7. Juvenile Sexual Victimization Structural Equation Model

Note: * $p < 0.05$, ** $p < 0.01$, two-tailed

Note: $\chi^2(15) = 18.07$, $p = .26$; NC=1.20; CFI =.98; TLI =.98; RMSEA =.03; WRMR =.69

The standardized coefficients of each key path and the proportion of variance explained in the endogenous variables are noted in Figure 7 and were as follows: juvenile sexual victimization, $R^2 = .27$; running away, $R^2 = .40$; initial age of drug or alcohol use, $R^2 = .18$; and being prostituted as a minor, $R^2 = .31$. In the juvenile sexual victimization model the structural paths connecting the key variables supported the study

hypotheses, with only one of the proposed path coefficients narrowly failing to achieve the predetermined significance value for a two-tailed hypothesis test.¹¹

The final step in the analysis of the juvenile sexual victimization model included the exploratory examination of the origins and effects of relational shame (see Analytic Strategy in Chapter 5). As planned, a supplementary juvenile sexual victimization structural equation model was analyzed to examine: (1) the effects of juvenile sexual victimization on the level of reported relational shame; and (2) to explore the effects of relational shame on the likelihood of being prostituted as a minor, seeking to discern whether relational shame may intensify the effect of running away and the initial age of drug or alcohol use on being prostituted as a minor. The juvenile sexual victimization model including relational shame also evidenced adequate fit to the data with a non-significant Chi-square, $\chi^2(19) = 24.66, p = .17$. The other indices demonstrated good model fit (NC = 1.30; CFI = .97; TLI = .97; RMSEA = .04; WRMR = .73).

The structural paths linking key latent and observed variables relevant to the juvenile sexual victimization model hypotheses were again examined to assess the proposed relationships. Juvenile sexual victimization was positively related to relational shame with a large effect size (*std. coefficient* = .50, $p < .01$). The associations of juvenile sexual victimization with running away (*std. coefficient* = .65, $p < .01$) and initial age of drug or alcohol use (*std. coefficient* = -.43, $p < .01$) were minimally affected by the inclusion of relational shame in the model. The combined indirect effect of caregiver

¹¹ To ascertain that the combination of childhood sexual abuse and adolescent sexual victimization into one measure (see Measures in Chapter 5) was not severely affecting the structural model or path coefficients, models were run with these indicators individually. Slight differences in model fit indicators, resulting in inferior model fit were noted in the adolescent sexual victimization only model. Very minimal changes in some path coefficients were found in the modified models.

strain on being prostituted as a minor as mediated by juvenile sexual victimization, running away, initial age of drug/alcohol use, and relational shame was minimally increased in this supplementary model (*std. coefficient* = .23, $p < .05$). The combined indirect effect of juvenile sexual victimization on being prostituted as a minor as mediated by running away, age of initial drug or alcohol use, and relational shame was also minimally increased by the addition of relational shame to the model (*std. coefficient* = .43, $p < .01$).

Relational shame had a significant and positive direct relationship with being prostituted as a minor with a moderate effect size (*std. coefficient* = .36, $p < .05$). The effect size of the relationship of running away with being prostituted as a minor was reduced and non-significant (*std. coefficient* = .23). Also, the effect size of age of initial drug or alcohol use on the likelihood of being prostituted as a minor decreased (*std. coefficient* = -.22). The proportion of variance explained of being prostituted as a minor in this supplementary model was $R^2 = .35$.

Child Maltreatment Model

As shown in Figure 8, the measurement model for the latent variables in the child maltreatment model evidenced an adequate fit to the data. The Chi-square was non-significant, $\chi^2(24) = 31.89$, $p = .13$. All other indices also demonstrated good fit (NC = 1.32; CFI = .98; TLI = .98; RMSEA = .04; WRMR = .77). The loadings of the indicators on the latent variables were statistically significant and strong, ranging from .45 to .90. As displayed in Figure 7, MPlus also provided the correlation coefficient between the two latent variables. These results provided support for the measurement model, which suggests a reasonable foundation for testing structural relationships.

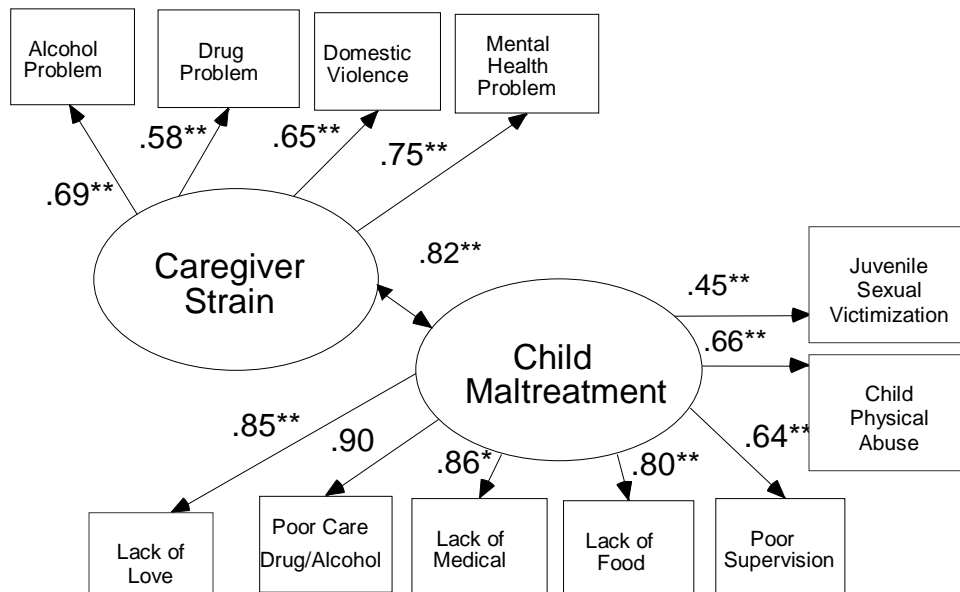


Figure 8. Child Maltreatment Measurement Model

Note: * $p < 0.05$, ** $p < 0.01$, two-tailed

Note: $\chi^2(24) = 31.89$, $p = .13$; NC = 1.32; CFI = .98; TLI = .98; RMSEA = .04; WRMR = .77

As shown in Table 12, the structural equation model featuring child maltreatment evidenced adequate fit to the data with a non-significant Chi-square, $\chi^2(34) = 48.06$, $p = .06$. All of the other indices demonstrated good model fit (NC = 1.41; CFI = .96; TLI = .97; RMSEA = .05; WRMR = .83).

Table 12. *Unstandardized, Standardized, and Critical Ratio Values for Child Maltreatment Model Displayed in Figure 9 (Standard Errors in Parentheses; N = 174)*

Parameter Estimate	Unstd. Coeff./Probit	Std. Coeff.	Critical Ratio (Z)
Measurement Model Estimates			
Strain by Domestic Violence	.84 (.30)	.65	2.75
Strain by Alcohol Problem	1.12 (.38)	.69	2.95
Strain by Drug Problem	.88 (.31)	.58	2.69
Strain by Mental Health Problem	1.33 (.35)	.75	3.85
Maltreatment by Poor Supervision	.61 (.21)	.64	2.94
Maltreatment by Lack of Food	1.52 (.50)	.80	3.07
Maltreatment by Lack of Medical	1.96 (.81)	.86	2.41
Maltreatment by Poor Care due to D/A	2.45 (.93)	.90	2.64
Maltreatment by Lack of Love	1.88 (.60)	.85	3.13
Maltreatment by Physical Abuse	1.02 (.37)	.66	2.81
Maltreatment by Sexual Victimization	.59 (.17)	.45	3.54
Strain with Maltreatment	.60 (.19)	.82	3.16
Structural Model Estimates			
Maltreatment on Caregiver Strain	.90 (.28)	.77	3.13
Running Away on Maltreatment	.93 (.24)	.67	3.93
Initial Age of D/A Use on Maltreatment	-1.55 (.41)	-.45	3.75
Prostituted Minor on Running Away	.37 (.17)	.41	2.12
Prostituted Minor on Initial Age of D/A	-.10 (.06)	-.28	1.80
Indirect Effect Prostituted Minor on Caregiver Strain	.44 (.19)	.31	2.31
Indirect Effect Prostituted Minor on Child Maltreatment	.49 (.09)	.40	2.48

Note: $\chi^2(34) = 48.06, p = .06$; NC = 1.41; CFI = .96; TLI = .97; RMSEA = .05; WRMR = .83

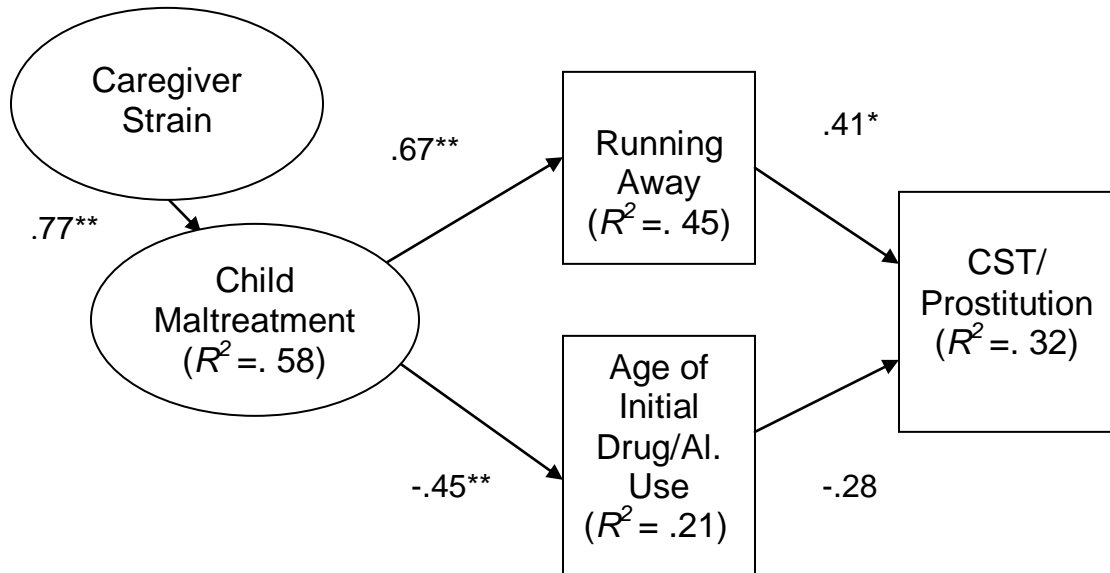


Figure 9. Child Maltreatment Structural Equation Model

Note: * $p < 0.05$, ** $p < 0.01$, two-tailed

Note: $\chi^2(34) = 48.06$, $p = .06$; NC = 1.41; CFI = .96; TLI = .97; RMSEA = .05; WRMR = .83

Next, the structural paths linking key latent and observed variables relevant to the child maltreatment model hypotheses were examined to assess the proposed relationships (see Figure 9). As mentioned in the results of the previous models, standardized linear regression coefficients and probit coefficients are reported for the key paths in the model. The unstandardized coefficients, standardized coefficients, and standard errors for all model estimates are reported in Table 12.

Caregiver strain was positively related to child maltreatment with a large direct effect size (*std. coefficient* = .77, $p < .01$). The combined indirect effect of caregiver strain on being prostituted as a minor as mediated by maltreatment, running away, and initial age of drug or alcohol use revealed a significant and positive relationship with a moderate effect size (*std. coefficient* = .31, $p < .05$).

Child maltreatment was positively related to running away with a large effect size (*std. coefficient* = .67, $p < .01$) and negatively related to age of initial drug or alcohol use with a moderate effect size (*std. coefficient* = -.45, $p < .01$). The combined indirect effect of child maltreatment on being prostituted as a minor as mediated by running away and age of initial drug or alcohol use revealed a significant, positive relationship with a moderate effect size (*std. coefficient* = .40, $p < .05$).

Running away had a significant and positive direct relationship with being prostituted as a minor with a moderate effect size (*std. coefficient* = .41, $p < .05$). Age of initial drug or alcohol use had a negative relationship with being prostituted as a minor (*std. coefficient* = -.28), with a critical value slightly lower than the predetermined significance level for the analysis ($z = 1.80$, $p = .08$).¹²

¹² As the effect of the initial age of drug or alcohol use on vulnerability to being prostituted as a minor had not reach the predetermined level for statistical significance in the models, further analyses were conducted in the child maltreatment model to determine if the combining of the two variables, age of initial drug use and age of initial alcohol use (see Measures in Chapter 5), had severely affected the structural model or the effect size of the path coefficient and the statistical significance. Structural equation models were assessed with the individual indicators, age of initial drug use and age of initial alcohol use, entered independently. Slight differences in model fit indicators, resulting in inferior model fit were noted in the model that included the initial age of drug use variable. No such changes in model fit were found in the structural model including the initial age of alcohol use indicator. The path coefficients from the initial age of use of the two substances (examined individually rather than as a combined variable) and being prostituted as a minor were stronger and statistically significant in both models (initial age of alcohol use, *std. coefficient* = -.37, $z = 2.35$, $p < .05$; initial age of drug use, *std. coefficient* = -.32, $z = 2.07$, $p < .05$) compared to the model with the combined variable (*std. coefficient* = -.28, $z = 1.80$, $p = .08$).

The standardized coefficients of each key path and the proportion of variance explained in the endogenous variables are noted in Figure 8 and were as follows: child maltreatment, $R^2 = .59$; running away, $R^2 = .45$; initial age of drug or alcohol use, $R^2 = .21$; and being prostituted as a minor, $R^2 = .32$. In the child maltreatment model the structural paths connecting the key latent and observed variables supported the study hypotheses, with only one proposed path coefficient narrowly failing to achieve the predetermined significance value for a two-tailed hypothesis test.

The final step in the analysis of the child maltreatment model included the exploratory examination of the origins and effects of relational shame (see Analytic Strategy in Chapter 5). As planned, a supplementary child maltreatment structural equation model was analyzed to examine: (1) the effects of child maltreatment on the level of reported relational shame; and (2) to explore the effects of relational shame on the likelihood of being prostituted as a minor, seeking to discern whether relational shame may intensify the effect of running away and the initial age of drug or alcohol use on being prostituted as a minor. The child maltreatment model including relational shame also evidenced adequate fit to the data with a non-significant Chi-square, $\chi^2(37) = 50.00$, $p = .08$. The other indices demonstrated good model fit (NC = 1.35; CFI = .97; TLI = .97; RMSEA = .05; WRMR = .83).

The structural paths linking key latent and observed variables relevant to the child maltreatment model hypotheses were again examined to assess the proposed relationships. Child maltreatment was positively related to relational shame with a large effect size (*std. coefficient* = .50, $p < .01$). The associations of child maltreatment with running away (*std. coefficient* = .68, $p < .01$) and initial age of drug or alcohol use (*std.*

coefficient = -.46, $p < .01$) were minimally affected by the inclusion of relational shame in the model. The combined indirect effect of caregiver strain on being prostituted as a minor as mediated by maltreatment, running away, initial age of drug or alcohol use, and relational shame was minimally increased in this supplementary model (*std. coefficient* = .33, $p < .05$). The combined indirect effect of child maltreatment on being prostituted as a minor as mediated by running away, age of initial drug or alcohol use, and relational shame was also minimally increased by the addition of relational shame to the model (*std. coefficient* = .43, $p < .05$).

Relational shame had a significant and positive direct relationship with being prostituted as a minor with a moderate effect size (*std. coefficient* = .36, $p < .05$). Running away no longer had a significant relationship with being prostituted as a minor with a reduced effect size (*std. coefficient* = .23). Also, the effect size of age of initial drug or alcohol use on the likelihood of being prostituted as a minor decreased (*std. coefficient* = -.22). The proportion of variance explained of being prostituted as a minor in this supplementary model was $R^2 = .35$.

Effect of Relational Shame

Further analyses were necessary to test the study hypothesis that relational shame may intensify the effect of behavioral responses to strain (running away and initial age of drug or alcohol use) on vulnerability to being prostituted as a minor. First, to examine the combined effects of running away and relational shame, the empirical probabilities of being prostituted as a minor based on the two vulnerability factors were calculated.

To facilitate and simplify the examination of the observed probabilities, the relational shame variable was condensed and recoded from seven levels into three levels: those who reported no shame (scored 0) were coded “0”; those who reported low levels of shame (scores ranging from 1-3) were coded “1”; those who reported high levels of shame (scores ranging from 4-6) were coded “3”. The results showed an increase in the observed probability of being prostituted across both vulnerability factors (see Table 13).

Also, those participants who ran away and reported high levels of relational shame had the highest probability of being prostituted as a minor, with a .41 probability. In comparison, the probability of being prostituted as a minor for those participants who did not run away and reported no relational shame was .01. The observed probabilities of being prostituted as a minor based on these two factors are also displayed in Figure 10.

Table 13. *Observed Probabilities of Being Prostituted as a Minor Based on Running Away and Level of Relational Shame (N = 172)*

		Level of Relational Shame			Total
		None	Low	High	
Ran Away	No	.01	.21	.00	.07
	Yes	.15	.12	.41	.20
Total		.05	.17	.32	.12

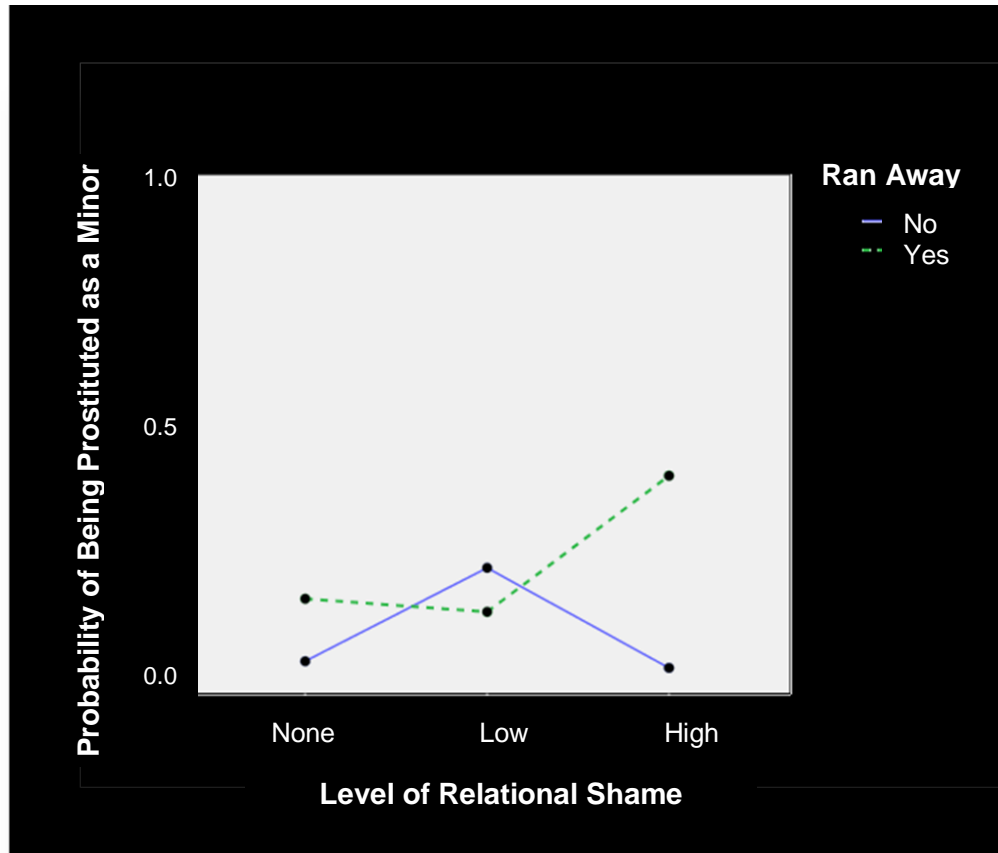


Figure 10. Observed Probabilities of Being Prostituted as a Minor Based on Running Away and Level of Relational Shame (N = 172)

In order to detect an interaction or moderating effect, logistic regression with the dependent variable, being prostituted as a minor regressed on running away, relational shame, and an interaction term of those two independent variables was conducted. One of the key assumptions of regression analysis is the absence of perfect or high multicollinearity. High multicollinearity does not bias the estimates of the coefficients, but can lead to an increase in Type II error due to an inflation of the standard errors of the regression coefficients.

Including an interaction term in a general linear model can drastically increase the level of multicollinearity. The product term (running away by relational shame) is a function of the observed variables (running away and relational shame), thus correlations of the observed variables with the product term are usually high. To reduce collinearity the continuous predictor variable included in the model was centered prior to computing the interaction term (Aiken & West, 1991).

Table 14. *Collinearity Statistics of the Regression of Being Prostituted as a Minor on Running Away, Relational Shame, and the Interaction Term*

	Collinearity Statistics	
	Tolerance	VIF
Running Away	.99	1.13
Relational Shame	.39	2.54
Interaction Term of Running Away by Relational Shame	.41	2.44

Table 14 reports the collinearity statistics of tolerance and the Variance Inflation Factor (VIF). The cut-off value for VIF is 2.5, and any value above 2.5 may indicate high multicollinearity. Two of the VIF values were near or higher than 2.5. The VIF values indicate the degree that covariates in the model are predicted by the other variables included in the model. The cut-off value for tolerance is .40, and any value below that indicates high multicollinearity. Two of the tolerance values were near or below .40, which indicates that a high proportion of variability in each predictor is explained by its linear relationship with the other predictors. These results indicate high multicollinearity

among the predictor variables as would be expected due to the inclusion of the interaction term.

Violations of other key assumptions of regression analysis were not noted in the results of the regression diagnostics. The Normal Probability Plot of the regression of the standardized residuals approximately charted the residuals in a diagonal line from bottom left to top right, indicating no major deviations from normality. The scatterplot of the standardized residuals found that the residuals were roughly distributed in a rectangular shape with no observed pattern, indicating no violations of the assumptions (Tabachnick & Fidell, 2001). Only one case had a studentized residual over 3.00 and no value for Cook's Distance was greater than .07, indicating that no extreme cases were having undue influence over the results (Tabachnick & Fidell, 2001).

Table 15. *Logistic Regression of Being Prostituted as a Minor Regressed on Running Away, Relational Shame, and the Interaction Term*

Variable	B	SE B	e^B
Constant	-2.63	.42	.07
Running Away	.94	.57	2.57
Relational Shame	1.22*	.57	3.37
Interaction term of Running Away by Relational Shame	-.48	.69	.62

* $p < 0.05$, ** $p < 0.01$, two-tailed. Note: $-2LL = 112.69$; $\chi^2(3) = 14.96^{**}$

Table 15 reports that the data fit the model well, $-2LL = 112.69$, $\chi^2(3) = 14.96$, $p < .01$. The Nagelkerke R^2 is .16, indicating that the covariates account for a small amount of the variance in the dependent variable. However, the interaction term was not found to be statistically significant, so no moderation effect is evident based on this logistic regression analysis.

In summary, the estimated probabilities of being prostituted as a minor based on these two vulnerability factors seemed to indicate that high levels of relational shame intensified the effect of running away on vulnerability to being prostituted as a minor in comparison to no shame. However, the results of the logistic regression including the interaction term provided no evidence of a moderating effect of relational shame on the link between running away and being prostituted as a minor.

Although the statistical significance of the path coefficient of initial age of drug and alcohol use and being prostituted as a minor was found to be slightly lower than the predetermined level for statistical significance in this study, the estimated effect sizes of the path coefficients (*std. coefficients* ranging from -.22 to -.29) were of sufficient magnitude to justify the examination of these variables to determine if there was a moderating effect of relational shame amplifying the likelihood of being prostituted for girls who began to use substances at an earlier age.

As with the previous regression model, regression diagnostics were examined to identify violations of the key assumptions of regression analysis. Table 16 reports the collinearity statistics of tolerance and the Variance Inflation Factor (VIF). The low VIF values indicate that covariates in the model were not predicted by the other variables included in the model. The tolerance values also indicate no problem with collinearity.

These results indicate that there is no problem with multicollinearity among the predictor variables included in this model.

Table 16. *Collinearity Statistics of the Regression of Being Prostituted as a Minor on Age of Initial Drug or Alcohol Use, Relational Shame, and the Interaction Term*

	Collinearity Statistics	
	Tolerance	VIF
Initial Age of Drug/Alcohol Use	.94	1.07
Relational Shame	.86	1.16
Interaction Term of Running Away by Relational Shame	.92	1.09

Further regression diagnostics were examined. The Normal Probability Plot of the regression of the standardized residuals approximately charted the residuals in a diagonal line from bottom left to top right, indicating no major deviations from normality. The scatterplot of the standardized residuals found that the residuals were roughly distributed in a rectangular shape with no observed pattern, indicating no violations of the assumptions (Tabachnick & Fidell, 2001). Three cases had studentized residuals slightly over 3.00 and no value for Cook's Distance was greater than .20, indicating that no extreme cases were having undue influence over the results (Tabachnick & Fidell, 2001).

As with the prior logistic regression, to reduce collinearity the continuous predictor variables included in the model were centered prior to computing the

interaction term (Aiken & West, 1991). Table 17 reports that the data fit the model well, $-2LL = 97.86$, $\chi^2(3) = 17.73$, $p < .001$. The Nagelkerke R^2 is .21, indicating that the covariates account for a small amount of the variance in the dependent variable. However, the interaction term was not found to be statistically significant, so no moderation effect is evident based on this logistic regression analysis.¹³

Table 17. *Logistic Regression of Being Prostituted as a Minor Regressed on Age of Initial Drug or Alcohol Use, Relational Shame, and the Interaction Term*

Variable	<i>B</i>	<i>SE B</i>	e^B
Constant	-2.28	.30	.10
Initial Age of Drug/Alcohol Use	-.15	.09	.86
Relational Shame	.35*	.15	1.42
Interaction term of Initial Age of Drug/Alcohol Use by Relational Shame	-.01	.04	.99

* $p < 0.05$, ** $p < 0.01$, two-tailed. Note: $-2LL = 97.86$; $\chi^2(3) = 17.73$ **

¹³ Logistic regression was also conducted with the variable measuring the initial age of alcohol use to explore if the inclusion of this variable rather than the combined variable (see Measures in Chapter 5) would alter the results, but the findings were similar to the results reported in the regression including the combined variable and were also non-significant.

Chapter 7

Discussion and Conclusion

The purpose of this study is to develop and subsequently assess a theoretically based explanation of the processes elevating vulnerability to victimization in child sex trafficking, specifically focusing on prostituted girls. This particular population of sex trafficking victims was chosen because girls face higher risk for victimization in sex trafficking than boys (Clawson, 2009) and prostituted minors are the most marginalized and least studied group of child sex trafficking victims (Williams & Frederick, 2009). Incorporating the previously documented risk markers of such crime victims and circumspectly drawing from propositions of sound criminological theory, this study projects a pathway into victimization in child sex trafficking in prostitution. The suitability of the projected pathway was subsequently evaluated utilizing structural equation modeling. This chapter includes a thorough discussion of the results of the analyses detailed in Chapter 6. Within this chapter, the implications stemming from the findings such as recommendations for new policies, prevention strategies, and the application of effective treatment interventions are considered. Limitations of the current study are also described, several contributions of this study to scholarly literature are highlighted, and suggestions for further research are offered.

The current study effectively postulated and empirically identified a pathway into victimization in child sex trafficking in prostitution. Specifically, the study tested five theoretically based and interlocking hypotheses that framed the proposed strain-reactive

pathway into victimization in child sex trafficking in prostitution. First, caregiver strain (e.g., domestic violence, mental health problems, substance abuse problems) was predicted to produce a detrimental familial context increasing the likelihood of the occurrence of child maltreatment, including child neglect, physical abuse, and sexual abuse. Second, in response to the strain of child maltreatment, it was hypothesized that victimized girls are more likely to choose risk-inflating, even delinquent, pathways of escape. The theorized pathway predicted that maltreated girls would be more likely to run away in comparison to non-abused girls or they would begin to use drugs or alcohol at an earlier age. Third, self-denigratory negative emotion was theorized to result from the girls' experiences of child maltreatment. Fourth, this negative emotion, resulting from previous childhood victimization experiences, was theorized to detrimentally inflate vulnerability to victimization in sex trafficking of escaping girls, i.e., girls who had run away or who had begun to use drugs or alcohol at an early age to escape the pain of victimization. And fifth, these risk-inflating responses or escape routes from strain predicted to be taken by abused and now possibly marginalized "delinquent" girls were expected to increase their vulnerability to revictimization in child sex trafficking.

General Overview of the Findings

The systematic analyses of the projected pathway, including the identification of four structural equation models, substantiated the suitability of the theorized pathway for explaining vulnerability to child sex trafficking in prostitution and partially supported the key predictions of this study. In the four models assessed in this study the proportion of variance explained in vulnerability to being prostituted as a minor ranged from $R^2 = .24$ to $R^2 = .35$. Recent research examining the etiology of adult prostitution that incorporated

comparable individual risk factors, such as experiences of child maltreatment and running away, noted similar proportions of variance explained for adult prostitution in the study that also utilized structural equation modeling (Wilson & Widom, 2010).

Beginning with the effects of caregiver strain on child maltreatment, this study sought to answer the question of whether the level of strain experienced by a child's caregiver, such as experiencing domestic violence or having a substance abuse or mental health problem, impacts the likelihood of the occurrence of child maltreatment, including child neglect, physical abuse, and juvenile sexual victimization. The study results indicated that the girls with strained mothers were more likely to have been neglected and abused than the girls whose mothers experienced less strain. In each model assessed by the study, there was a strong and positive relationship between caregiver strain and the form of child maltreatment included in the model, whether child neglect, child physical abuse, or juvenile sexual victimization (with *std. coefficients* ranging from .54 to .76). This association of caregiver strain with all types of child maltreatment supports previous studies on the detrimental effects of strain on caregivers that have reported that caregivers are often abusive or neglectful due to mental illness, drug or alcohol abuse, domestic violence, or other types of strain or adversity (Barnett et al., 2005; DiLauro, 2004; Ford et al., 2006; Herrenkohl et al., 2008; Turner et al., 2007).

Differences found in the models seem to indicate that the occurrences of child neglect were more fully accounted for by caregiver strain than were the incidences of the other two types of child maltreatment. The proportion of the variance explained in child neglect by caregiver strain ($R^2 = .58$) was approximately double the proportion of variance explained in the two other types of child maltreatment, i.e., $R^2 = .27$ in child

physical abuse and $R^2 = .31$ in juvenile sexual victimization. This variation in the findings could be due to differences in the types of variables included in the model. The child neglect measure was a latent variable identified by five observed indicators. Latent variables are less influenced by measurement error than observed variables (Kline, 2005). The other two measures of maltreatment were observed variables; therefore, the amount of variance explained for these types of maltreatment may have been attenuated due to reduced reliability of those measures (Kline, 2005). Thus, this disparity in the amount of variance explained by caregiver strain could be a result of differences in the quality of the variables measuring maltreatment.

Another explanation of the disparity in the results could be that child physical abuse and juvenile sexual victimization are more likely to result from a greater number of generative factors, beyond caregiver strain, in comparison to child neglect. Such a finding would be in agreement with previous research regarding the sources of child maltreatment. Child neglect has often been found to be a consequence of a caregiver or family being strained and overwhelmed, resulting in lack of care and supervision (Agnew et al., 2000; Benedict & Zautra, 1993; Hildyard & Wolfe, 2002). Although child physical abuse has often been associated with similar risk factors (Walsh et al., 2002), additional risk factors have also been noted such as a caregiver with an impulsive or explosive temperament, difficult temperament of the child, and cultural approval of harsh and abusive parenting (Barnett et al., 2005). Although caregiver strain and family dysfunction have been associated with sexual abuse (Finkelhor, 1994; Madonna et al., 1991; Walsh et al., 2002; Terry & Tallon, 2004), additional factors have been found to increase risk for sexual abuse or assault. Sexual offenders generally select children based on vulnerability, i.e., children who are needy, shy, from divorced or single-parent

homes, trusting, or young (Barnett et al., 2005; Terry & Tallon, 2004). As evidenced by this listing of vulnerability factors, caregiver strain may increase risk for sexual abuse but some risk factors are unrelated to caregiver strain. Also, caregivers almost always perpetrate child neglect; however, sex offenders may be encountered in a wide range of children's social networks such as schools, churches, clubs, and neighborhoods (Shakeshaft, 2004; Snyder, 2000; Terry & Tallon, 2004). Perhaps the disparity in the proportion of variance explained by caregiver strain is signifying that although caregiver strain is a significant risk factor for all types of maltreatment, child physical abuse and juvenile sexual victimization may result from a wider and more divergent set of sources while child neglect may be more readily predicted by caregiver strain.

Caregiver strain was also shown to have a modest, indirect effect on vulnerability to being prostituted as a minor mediated by maltreatment, running away, and age of initial drug or alcohol use in all models (with *std. coefficients* ranging from .19 to .31). This finding of a moderate indirect relationship between caregiver strain and being prostituted as a minor provides support for the prior research that has noted family dysfunction as a risk marker inflating vulnerability to victimization in child sex trafficking in prostitution (Clawson, 2009; Estes & Weiner, 2005). In addition, this finding regarding the indirect effects of caregiver strain on later victimization provides further validation of a transgenerational effect of strain, with strain being partially transferred from mother to daughter (Loeber et al., 2009). The impact of caregiver strain on girls' further involvement in criminal events would seem to be mediated by the experience of child maltreatment and its lingering, long-term liability (Loeber et al., 2009; Macmillan, 2001; Agnew et al., 2000).

Confirming the study hypotheses, the models substantiated the proposition that maltreated girls are more likely to run away and initiate drug or alcohol use at an earlier age than girls who are not abused. The impact of all forms of child maltreatment on the likelihood of these two behavioral responses or escape mechanisms supports the study hypothesis that abused girls may attempt to escape strain by initiating various behavioral, even delinquent, responses (Agnew, 2001, 2006a; Agnew et al., 2000; Steffensmeier & Allan, 1996). This finding regarding the effect of maltreatment on running away validates previous research showing that minors commonly run away from abusive environments (for review, see Baron, 2003). Further, the finding that maltreated children initiated drug or alcohol use at an earlier age supports prior studies regarding the use of substances by maltreated children to cope with abuse (for review, see Bender, in press).

Concerning the prediction that risk-inflating choices made by abused minors increases their vulnerability to being prostituted, one of the predicted behavioral responses to strain, running away, was found to increase the likelihood of entrapment in prostitution as a minor in three of the four models, with statistically significant path coefficients. In the child neglect model, the juvenile sexual victimization model, and in the model that included a composite measure of all three forms of child maltreatment, running away directly impacted the likelihood of being prostituted as a minor. This finding supports previous reports asserting that runaways are at heightened risk for commercial sexual exploitation (Clawson, 2009; Estes & Weiner, 2005). The association noted between child maltreatment and being prostituted as a minor, facilitated by running away, supports prior research that has shown running away to be both a result of maltreatment and a predictor of future involvement in criminal environments, including

child sex trafficking (Bender, in press; Chesney-Lind, 2001; Estes & Weiner, 2001; Sheridan & VanPelt, 2005).

The findings regarding the effects of the other behavioral response to strain included in the projected pathway, an earlier initiation of drug or alcohol use, were equivocal. The inverse relationship between initial age of drug or alcohol use and the likelihood of victimization in prostitution was present as predicted. However the pathway coefficient between initial age of drug or alcohol use and being prostituted as a minor did not reach statistical significance at the level that had been predetermined for the study in any of the models. So although the models supported the study hypothesis and previous research by finding that abused minors were more likely to begin to use substances at an earlier age than those who were not maltreated (Bender, in press; Harrison et al., 1997; Morash, 2006), a statistically significant direct effect of initial age of drug or alcohol use on vulnerability to victimization in child sex trafficking in prostitution was not found. Strictly adhering to the statistical results that failed to reject the null hypothesis at an alpha level of .05, these findings would indicate that the age of initial drug or alcohol use does not generate vulnerability to being prostituted as a minor.

On the other hand, the small to medium effect sizes of the associations found between the two variables in the four primary models (*std. coefficients* ranging from -.22 to -.29) were narrowly non-significant. It has been argued, "Statistical significance tells us very little (if anything) about the *practical significance* or *relative impact* of the effect size and should not be used as a stand alone measure" (Valentine & Cooper, 2003, p. 1, emphasis in the original). As the path coefficients were statistically significant when the individual variables reporting the initial age of alcohol use and the initial age of drug use

were entered into the model (i.e., initial age of alcohol use, *std. coefficient* = -.37, *z* = 2.35, *p* < .05; initial age of drug use, *std. coefficient* = -.32, *z* = 2.07, *p* < .05), it would seem reasonable to conclude from this collection of findings that an earlier initiation into drug or alcohol use increases vulnerability to being prostituted as a minor.

Within the models that contained a single type of child maltreatment, the model including juvenile sexual victimization explained the greatest amount of variance in being prostituted as a minor ($R^2 = .31$ vs. $R^2 = .24$ for the child physical abuse model and $R^2 = .27$ for the child neglect model). This finding confirming the detrimental impact of juvenile sexual victimization validates a large body of research that has demonstrated that prior sexual victimization is a key predictor of repeat sexual victimization (for review, see Classen et al., 2005) and supports research regarding the substantial damage that being sexually abused as a minor eventually yields in the lives and futures of those consequently exploited in prostitution (e.g., Silbert & Pines, 1982; Simons & Whitbeck, 1991).

However juvenile sexual victimization was not the only form of child maltreatment shown to have an effect on the likelihood of being prostituted, rather all of the forms of child maltreatment included in the models showed a significant and moderate indirect effect (with *std. coefficients* ranging from .33 to .38) on the likelihood of girls being prostituted, mediated by running away and age of initial drug or alcohol use. This generalized effect of all the forms of child maltreatment, both when entered into the models singularly or when entered as observed indicators to identify a single latent child maltreatment construct, indicates that all forms of child maltreatment harmfully impact a child, not only sexual victimization. This finding concurs with the growing body of

research supporting the notion that there is a universally harmful effect of all types of child maltreatment (Finkelhor, Ormrod, & Turner, 2007; Van Bruggen et al., 2006; Wilson & Widom, 2010). The detection of a persisting effect of child maltreatment on involvement in further abusive and exploitive relationships may be indicative of conceptualizations previously proffered by theorists and researchers that maltreated children are likely to endure a series of abusive relationships as they mature, due to the formation in childhood of a dysfunctional template of relationship functioning (Agnew, 2006a; Bowlby, 1973, 1980; Finkelhor & Browne, 1985; Fraley, 2002).

The results of the supplementary models incorporating the relational shame variable supported the hypothesis that self-denigratory negative emotion, in the form of relational shame, was more likely to be experienced by girls who had been maltreated than by girls who had not been maltreated. This association of child maltreatment with relational shame validates the proposition by Agnew and Broidy (1997) that girls may respond to strain with self-denigratory emotion. The finding that relational shame results from all forms of child maltreatment offers further validation to the assertion that stigmatization or shame, once theorized to be a unique result of sexual abuse (Finkelhor & Browne, 1985), may instead be a consequence of all forms of child maltreatment (Stuewig, & McCloskey, 2005; Van Bruggen et al., 2006). Relational shame was also found to have a moderate impact on likelihood of being prostituted as a minor, validating previous research regarding the endangering effects of shame on the likelihood of sexual revictimization (Arata, 2000, 2002; Classen, et al., 2005; Filipas & Ullman, 2006; Messman et al., 2009; Stockdale et al., 2002; Van Bruggen et al., 2006; Whiffen & MacIntosh, 2005).

In further analysis, the predicted interaction between the age of initial drug or alcohol use and relational shame on vulnerability to being prostituted while a minor was not substantiated using logistic regression (see Table 17). Also, the predicted interaction between running away and relational shame on vulnerability to being prostituted while a minor was not validated (see Table 15). However, the quantity of prostituted minors within the sample along with the lack of variation and collinearity between variables (i.e., running away, relational shame, and being prostituted as a minor) may have distorted the findings (i.e., all of the girls who had high levels of shame or scored 4-6 on the scale of relational shame and were prostituted had also run away).

In supplementary analysis, the empirical probability of being prostituted as a minor for girls who ran away and had higher levels of shame (.41) was found to be much greater than the probability of being prostituted for girls who did not run away and reported no relational shame (.01). Although this finding of a greater observed probability of being prostituted for girls who ran away and reported higher relational shame was simply an exploratory examination of this single sample, it provided introductory support for the possibility of an aversive cumulative effect of this combination of risk factors, rather than a moderating or interaction effect. Thus, relational shame may provide partial explanation of prior findings, which have noted that previously abused runaways are at greater risk for sexual exploitation in prostitution than those without an abuse history (Saewyc & Edinburch, 2010; Saewyc, et al., 2008; Scott et al., 2003; Tyler & Johnson, 2006a). Conclusive evidence for a moderating effect of relational shame, which amplifies the effect of running away on the likelihood of being

prostituted as minor, was not revealed by this study; however, further research into this hypothesis would seem to be warranted.

Policy Implications of the Study

The implications of this study are relevant to policies related to child victims of sex trafficking, including prevention and intervention strategies. Along the analytically identified pathway into child sex trafficking in prostitution, there seems to exist critical junctures primed for either protective intervention or elevated endangerment. Rather than simply surveying the perilous journey of vulnerable minors into entrapment into child sex trafficking in prostitution knowing the damaging consequences that await them (for review, see Table 2), the ultimate purpose of this study was to provide needed information for the implementation of empirically informed strategies for intervening and obstructing the forward movement of minors along this strain-reactive pathway. The identification of a pathway into child sex trafficking traversed by certain girls offers essential details needed for the creation and application of effective policies and practices. The paragraphs that follow offer several specific suggestions for improved intervention at various critical junctures along the pathway into child sex trafficking in prostitution identified by this study.

Based on the findings indicating that caregiver strain increases the vulnerability of girls to victimization, initiating with child maltreatment and terminating in exploitation in prostitution, child sex trafficking prevention strategies would be most effective if targeted at severely strained families and their children. Law enforcement officers, child protection investigators, and child protection service providers are most likely to be the primary responders to crises within such families; therefore, they would most likely be

responsible for providing the first phase of intervention and protection from an escalation in victimization for maltreated minors. Skillful and empirically-based intervention by law enforcement and child protection professionals could impede the progress toward victimization in child sex trafficking for vulnerable girls living in strained families by protecting such girls from maltreatment and providing support to their caregivers.

The availability of sufficient resources and training is vital to ensure that the first responders to this most vulnerable population are adequately equipped for the task they have been given (Vieth, 2005). The caseloads of child protection investigators often exceed recommendations; in New York, for example, the average number of investigations per child protection investigator was reported as 20 per month (Vieth, 2005; Yackoub & Moss, 2007). Investigations of child maltreatment generally involve interviews with children, parents, school staff, and medical personnel; the inspection the site of the abuse for evidence; and the collection of information from various sources or databases (Vieth, 2005). Perhaps this heavy caseload among child protection investigators explains why the majority of reported cases of abuse are not substantiated (HHS, 2010). The quantity and difficulty of the responsibility placed on child protection investigators may also help to explain the finding that child victims of unsubstantiated abuse were just as likely to be genuine victims of abuse as those whose cases were substantiated, as well as the high rate of recidivism within 12 months found among both substantiated and unsubstantiated cases, 22% and 13% respectively (Fuller & Neito, 2009; Vieth, 2005). The arduous caseload of investigators may not permit thorough investigations, nor allow time for the provision of needed resources to strained families and children in an effort to prevent further occurrences of abuse or the intensification of victimization. The escalation of child victimization identified in the strain-reactive

pathway could be prevented by the timely provision of needed services to adversely affected caregivers such as parenting classes, substance abuse treatment, mental health therapy or medication, or assistance to victims of domestic violence.

Beyond a reduction in caseloads, further recommendations for improving the responses of child protection investigators have been detailed, such as providing better training and including a course specific to child protection investigations into the curriculum of educational programs preparing future child protection professionals (Vieth, 2005). Undergraduate and graduate social work programs seldom prepare future child protection investigators for the realities and obstacles they will encounter (Parent, 1996; Vieth, 2005). “Their training is inadequate, and the number of workers is too small for the number of families in trouble. Some of the cases would require a battalion of cops, doctors, and social workers to handle; instead there are two kids fresh out of college with good intentions and a handful of forms” (quote from Foreword by Anna Quindlen in Parent, 1996, p. vii). Specialized courses designed to provide training in child protection investigations have been skillfully developed and are currently taught in numerous universities in the United States (Vieth, 2005); widespread adoption of these specialized courses into educational programs that prepare future child protection investigators would be a relatively simple step that could be taken toward providing more effective intervention for troubled or strained caregivers and maltreated children, thereby increasing protection for abused minors and decreasing the likelihood that they will become future victims of child sex trafficking.

Similar to the recommendations for specialized education and training intended to prepare social workers for child protection investigations, criminal justice education

and training programs in child protection are necessary as criminal justice professionals are often the first responders in child abuse cases (Vieth, 2005). For example in Florida, child protection investigation units for each of the counties are operated under the respective county's Sheriff's Office (SHI, 2008). These units are responsible for investigating allegations of child abuse against a care provider, such as a parent or teacher. When a child abuse report is received, a law enforcement officer will respond along with a child protection investigator. If a child protection investigator is not available (i.e., child protection investigators are only scheduled for work on Monday to Friday from 9 a.m. to 5 p.m. in Florida), a law enforcement officer will respond to the call alone and a child protection investigator will follow-up on the abuse report during the next business day. Child protection investigators working in partnership with law enforcement officers are tasked with determining whether the allegations of abuse against a care provider can be substantiated and whether the child should be removed from the residence.

Alternatively, law enforcement officers in Florida, not child protection investigators, are fully responsible for investigating all child abuse allegations involving any non-care provider, such as abuse allegations against neighbors, relatives other than caregivers, or acquaintances. Not only are law enforcement officers the first responders to abused children or adolescents; they also are often the first responsible authority to interact with runaways (SHI, 2008). As this study has found that runaways face heightened vulnerability to entrapment in child sex trafficking in prostitution, training for law enforcement regarding the potential dangers faced by runaways and how best to intervene and protect such minors is essential. As the first and primary representative of the criminal justice system, if police officers are unaware of the vulnerabilities and dangers faced by runaways or if the officers are uninformed of effective intervention

strategies and safe shelter options it is possible that runaway minors will be exploited while on the streets. In light of the findings of this study that maltreated minors within strained families are at heightened vulnerability for involvement in child sex trafficking in prostitution and recognizing the extensive responsibilities of law enforcement officers in child protection investigations and their regular interactions with vulnerable runaways, training for future criminal justice professionals in child protection investigation seems to be warranted (Vieth, 2005).

As shown in this study, maltreated minors are more likely to run away than minors without an abuse history. As noted earlier, the study findings also indicate that runaways are more vulnerable to being prostituted. Therefore based on these two findings, it would follow that maltreated minors may benefit from information regarding safe options in the event they need to escape further maltreatment. Personally tailored safety plans are considered to be part of best practice protocols, and are crafted with previously abused women involved in domestic violence to promote safety for them and their children during future episodes of violence or abuse (Administration for Children's Services, 2003). This protocol encouraging preparation for a crisis through the use of a personally tailored safety plan, including a precise plan of who to call in an emergency and where to go to find safety, could reduce the likelihood that maltreated minors would run away and thereby become vulnerable to victimization in child sex trafficking in prostitution. Implementation of mandatory personal safety planning concerning what to do in a crisis should be included in the case planning provided for every abused child who is old enough to collaborate in such preparation.

This study has validated previous reports indicating that vulnerability to exploitation and victimization is elevated for minors who run away (Clawson, 2009; Estes & Wiener, 2005). Runaway minors have few options for obtaining shelter or other basic necessities, which opens them up to exploitation and involvement in criminal activities (Clawson, 2009; Sheridan & VanPelt, 2005; Williamson & Cluse-Tolar, 2002; Vieth & Ragland, 2005; Wilson & Widom, 2010). Providing safe shelter for runaways seems to be an imperative point for crisis intervention along this study's empirically identified strain-reactive pathway that could prevent runaways from being further victimized and exploited. When caregivers are no longer able to provide sufficient care or protection, rather than these minors tragically becoming nobody's children (Hanna, 2002), the community must become an adequate guardian if a plan for the prevention of child sex trafficking of such minors is to succeed.

Resourcefully, the National Safe Place initiative is an example of a youth intervention program that could be replicated in communities across the United States that would most likely lead to a reduction in the numbers of minors who run away only to be victimized in sex trafficking. This initiative meaningfully widens the doors of a community's existing youth emergency shelter system, so that minors are more likely to be able to access help whenever and wherever they need it. The Safe Place initiative provides a network of locations that are clearly marked as safe havens for youth in crisis (Safe Place, n.d.). Public facilities, such as fire stations, schools, or libraries, as well as appropriately screened locations such as fast food restaurants or convenience stores, display a distinctive yellow and black Safe Place sign letting a runaway know that safe shelter and services are available for them. This initiative creates a community safety net of highly visible and safe options for vulnerable youth. In some communities, the

public transit system has become a part of this safety net for youth and has taken on the role of providing mobile safe havens. The Safe Place network connects minors to immediate help and safety, as well as offering supportive social services to both the minors and their families.

A number of findings from the current study are relevant to professionals who provide social services such as mental health or substance abuse counseling to maltreated minors. This study's confirmation of a pathway leading from experiences of childhood maltreatment into child sex trafficking in prostitution highlights the need for effective mental health treatment for neglected and abused minors. For example, maltreated children were found to begin substance use at an earlier age thereby potentially increasing their vulnerability to further victimization. Such findings highlight the importance of substance and addictions counseling for abused and neglected minors.

The results of this study reiterated the warning previously sounded by many child victimization researchers that being sexually abused increases vulnerability to future sexual victimization (for review, see Classen et al., 2005). In this study being neglected and physically abused were also found to affect vulnerability to sexual exploitation, so the provision of counseling services should not be limited to minors who have been sexually abused. Specifically, family counseling for maltreated minors should be considered essential due to the findings of this study indicating that caregiver strain increases vulnerability to further endangerment and victimization. Therapeutic models, such as Multisystemic, Functional Family, and Trauma-Focused Cognitive Behavioral Therapy, involving both individual and family counseling, should be selected when

planning treatment for such minors (Dulmus & Hilarski, 2002; Heyman & Slep, 2007; Saunders, Berliner, & Hanson, 2003).

In light of the findings from the exploratory examination of the effects of relational shame, treatment for minors who have been sexually victimized, physically abused, or neglected would likely be more effective if they included strategies centered on reprocessing cognitions of not being worthy of healthy relationships, altering ideas of being undeserving of love, and shaping new beliefs about possessing intrinsic value and having equal importance relative to others. Maltreated minors also would benefit from information on how the psychological effects of childhood neglect or victimization (e.g., feelings of worthlessness in relation to others or a recurrent resignation to further abuse) may place them at an elevated risk for revictimization or involvement in exploitive relationships. To facilitate such treatment, the development of training materials and treatment strategies for therapists and child advocates are needed to assist such professionals in identifying and resolving these vulnerabilities in abused or neglected minors.

Currently, child sex trafficking in prostitution is often categorized as a public nuisance crime by state and local law enforcement. Child sex trafficking victims who have been criminally exploited continue to be prosecuted by laws designed to protect them (Albanese, 2007; Curtis et al., 2008; FACJJ, 2007; Florida Department of Juvenile Justice [FDJJ]; 2006; Gray, 2005; Halter, in press; SHI, 2008). Arresting and adjudicating a minor victim of sex trafficking as a juvenile delinquent severely limits the availability and quality of victim services that could be provided to the minor as a crime victim by social service providers (SHI, 2008). By empirically depicting the common

vulnerabilities of child sex trafficking victims due to undeserved life experiences, the findings of this study may prove useful in curtailing the typical attribution of blame onto child sex trafficking victims for crimes committed against them and instead encourage the institutions responsible for protecting these vulnerable minors to embrace a more victim-centered orientation (Halter, in press; Kreston, 2005; Williams & Frederick, 2009).

In summary, the primary implications of the findings of this study have concentrated on enhancing the preparation, development, and provision of resources for child protection investigators, law enforcement officers, and child protection social service providers. Protection and delivery of social services for strained families and maltreated children are presently coordinated by these three groups of professionals working in tandem. The victimization of vulnerable minors in child sex trafficking will likely continue unabated unless the progression of minors along the strain-reactive pathway is obstructed. Accomplishing this task of protecting minors from victimization in child sex trafficking in prostitution can be advanced by providing better preparation and adequate support for those who are already battling in the trenches nearest the front (Vieth, 2005).

Limitations of the Study

As child sex trafficking victims are among the most hidden and inaccessible of victims, this study has provided a greater understanding of the origins and processes creating vulnerability to child sex trafficking in prostitution by analyzing previously collected and available data. Although the availability of these data was beneficial, it also produced several limitations. The data were collected from African American females living in the United States who took part in a longitudinal study on the effects of

child sexual abuse. Accordingly, the findings of this study can only be applied to girls who are victims of domestic sex trafficking in the United States, to the exclusion of international, adult, or boy victims. The lack of minors of both genders in the sample limits the application of the findings to girls, preventing a comparison of genders and precluding an assessment of whether the proposed pathway is gendered or if certain boys may also follow a similar path into child sex trafficking.

Also, the sample lacked cultural diversity, limiting its generalizability to other races and ethnicities. However, minority girls living in low-income families and in an urban environment possessed several individual and community risk markers for entrapment in child sex trafficking in prostitution (Clawson, 2009; Estes & Wiener, 2005), so the inclusion of such participants in the study was also considered a key advantage. By using a high-risk sample, the study was to be able to detect the mechanisms that were operating to put certain high-risk youth in greater danger to victimization in sex trafficking. However, as the result of the use of this high-risk sample, descriptive statistics describing the characteristics of the sample were not representative of U.S. minors.

Despite the careful selection and assessment of the indicators for the latent variables and the observed indicators, it is not possible to guarantee that these measures fully captured the variables of interest (Shadish et al., 2002). For example, the primary variable of interest in this study, child sex trafficking in prostitution, was not the focal point of the prior studies for which these data were originally collected. As a result, information was not collected concerning whether a trafficker or a need to survive drew the victim into prostitution. As was noted earlier, both situations are considered to

be the commercial sexual exploitation of a child and the procurer of sex with a minor would be legally considered a sex trafficker, if no third party trafficker were involved (Adelson, 2008; DOJ, n.d.). In addition, prior studies have found that the majority of girls involved in prostitution in the United States were under the control of traffickers (Albanese, 2007; Estes & Weiner, 2005). Most importantly, the effects of both child sex trafficking involving a third-party trafficker and the forms of child commercial sexual exploitation frequently labeled survival sex or trading sex have been found to be highly detrimental (Albanese, 2007; DOS, 2008, 2009; Estes & Weiner, 2005; FACJJ, 2007; Inciardi, 1993). Therefore, identifying a pathway into such victimization was considered to be beneficial, whether or not a trafficker or third party profited in each and every case.

Another variable of interest in the current study, the measure selected to detect relational shame, may not have exclusively or entirely assessed that negative emotion. The measure was originally created based on an index of items projected to reflect stigmatization and traumatic sexualization resulting from sexual victimization (Finkelhor & Brown, 1985; Siegel & Williams, 2001a). However, this measure corresponded well to the devaluation experienced by adolescent girls in relation to males theorized by gendered pathways theory (Belknap & Holsinger, 2006; Chesney-Lind & Shelden, 2004; Giordano et al., 2006) and to the prediction by general strain theory that girls respond to strain with self-denigratory emotion (Broidy & Agnew, 1997).

Further limitations of the study arose from the original data collection procedures. Although the child sexual abuse measure was initially collected prospectively, most of the indicators of childhood maltreatment were collected from the participants based on their recollections of their childhood during follow-up interviews. Such retrospectively

collected data are not considered as accurate or reliable as data collected and documented at the time of its occurrence (Butz, 1981). Recall of past life events can be incomplete or inaccurate, especially when investigating traumatic or stressful childhood occurrences (Stokes, Dritschel, & Bekerian, 2008; Williams, 1994, 1995). To offset these limitations, the researchers collecting the data were trained in asking questions on sensitive topics prior to conducting interviews with the study participants (Siegel & Williams, 2001a). During the interview, the interviewers initially established rapport with the participants and subsequently asked a series of questions about experiences in childhood, designed to elicit the participants' abuse and victimization history (Siegel & Williams, 2003, p. 911). The interviewers were trained in handling indefinite responses to difficult or sensitive questions in order to determine whether the participants simply needed time to recall an event or whether they actually did not remember (Siegel & Williams, 2001a).

In addition, recalling episodic memories can be faulty due to telescoping, i.e., assigning specific events to a specific time period when they actually occurred prior to or after that period (Croyle & Loftus, 1992, 1993). To assist interviewees with memory recall and avoid telescoping, the interview was comprised of sections with sets of questions regarding different developmental life periods. For questions regarding past events the interviewers defined the time frame and established memorable milestones for each of the life stages, assisting the participants' memory recall for the period to which the questions referred (Siegel & Williams, 2001a, 2003).

Beyond concerns with memory recall, the inclusion of retrospective and cross-sectional data into the structural equation models introduced uncertainty regarding the

temporal relationships between the measures. For example, information on the specific ages of the minors when they ran away or experienced child physical abuse were not noted in the data, precluding the assessment of the effect of the specific age of these childhood experiences on the likelihood of being prostituted. Although the chronological order of these events or experiences during childhood was unclear due to the lack of data regarding the specific ages of the participants, running away was positioned and assessed in the models as a consequence of child maltreatment rather than an antecedent based on a large body of previous research on runaways indicating that many flee abusive homes (for review, see Baron, 2003).

More importantly, the measure of relational shame could have been specified in the models as a result (or a correlate) of child sex trafficking in prostitution rather than as a predictor or moderator increasing vulnerability to child sex trafficking because no information regarding the onset of relational shame was collected from the study participants. However, numerous researchers have found shame or stigmatization to be a long-lasting consequence of experiencing the various forms of child maltreatment included in the model (Arata, 2000, 2002; Barnett et al., 2005; Berenson & Andersen, 2006; Bloom, 2000; Bottoms, et al., 2003; Classen, et al., 2005; Fagan, 2005; Filipas & Ullman, 2006; Kolko, 2002; Messman et al., 2009; Miller-Perrin & Perrin, 1999; Solomon & Heide, 2005; Stockdale et al., 2002; Van Bruggen et al., 2006; Whiffen & MacIntosh, 2005). Moreover, studies focused on sexual revictimization have found shame to be a mediator of the relationship between child sexual abuse and sexual revictimization (for review, see Classen, et al., 2005; see also, Arata, 2000, 2002; Filipas & Ullman, 2006; Messman et al., 2009; Stockdale et al., 2002; Van Bruggen et al., 2006; Whiffen & MacIntosh, 2005). Therefore, the exploration of relational shame as a predictor of being

prostituted was pursued based on previous research and the theoretical framework of the study. However, the effects of relational shame were explored through the use of supplementary structural equation models to prevent the temporal uncertainty of this variable from creating a potential threat to the internal validity of the primary models (Shadish et al., 2002).

As this study utilized secondary data analysis, limitations in model specification may be present possibly resulting in omitted variable bias. For example, there was a lack of data regarding paternal strain. As a result, only indicators of maternal strain were included in the model as representative of the level of caregiver strain. However, previous studies regarding caregiver/child relationships have found that mother/child relationships were typically considered the primary caregiver relationships among African American children in lower income families (for review, see Liang et al., 2006).

The inclusion of latent variables in structural equation models has been shown to reduce measurement error, yet two inaccuracies are possible when using latent variables (Kline, 2005). First, the *naming fallacy* is the unsound notion that the name given to a latent variable definitively reflects the identified underlying construct. Second, *reification* is an error made by treating the constructs derived from these latent labels as if they correspond directly to measurable qualities or to real existing entities. A further limitation of structural equation modeling is that alternative models may be specified that adequately fit or replicate the observed patterns in the data (Kline, 2005). The use of the WLSMV estimator in assessing the models was essential (see Analytic Strategy in Chapter 5), yet employing this estimator also introduced several limitations including the use of a complex pair-wise deletion technique for handling missing data that is not

considered to be as effective as other techniques available with other types of estimators (Brown, 2006; Muthén & Muthén, 1998-2007).

Contributions to Criminological Research

This segment of the chapter thoroughly reviews the important advancements in understanding of the origins of vulnerability to child sex trafficking accomplished by this study through the development, application, and empirical assessment of a distinct problem-focused theoretical framework derived from criminological theory. Prior research on child sex trafficking had employed a risk factor approach when investigating the origins of victimization and had been built primarily on case study research, gathering information based on the reported experiences of prior victims (Estes & Weiner, 2001, 2005; Kennedy et al., 2007; Priebe & Suhr, 2005; Williams & Frederick, 2009). These studies were descriptive in nature and lacked a sound theoretical framework, limiting the progress of solution development.

In light of the need for a theoretical foundation on which to build a greater understanding of child sex trafficking, the current study framed and then assessed “a plausible process” (Wikström and Sampson, 2006, p. 2) or pathway by which minors may become victims of child sex trafficking in prostitution. The current study’s strain-reactive pathway was partially foreshadowed by the child victimization pathway included within a sensitizing typology of female pathways into offending pioneered by gendered pathways theory (Daly, 1992; Giordano et al., 2006; Salisbury & Van Voorhis, 2009). This descriptive schematic from the sensitizing typology was made up of a series of stepping-stones marked by troubling transitions from childhood abuse into prostitution (Giordano et al., 2006) and served as an initial template for the study’s development of a

strain-reactive pathway. General strain theory served as the theoretical basis for the proposed pathway supplying both explanations of the origins and the mechanisms operating within the life trajectory terminating in child sex trafficking in prostitution (Agnew et al., 2000).

Whether criminological theory could prove to be useful in explaining victimization in child sex trafficking was one of the inquiries embedded within this study. The research findings support the study premise that criminological theories could be beneficial in rendering a more complete elucidation of victim susceptibility and the life adversities that place certain minors, specifically certain U.S. girls, on a high-risk pathway toward entrapment in child sex trafficking. The application of criminological theory to the problem of child sex trafficking represents an important advancement in the understanding of this crime against children.

Although the problem of child sex trafficking fits soundly within the domain of criminology, the issue has not received a great deal of attention from criminological theorists, nor has it been a central focus of criminological research. The theoretically based pathway assessed by this research was framed by several key propositions from criminological theory. The pathway was empirically identified and key theoretical hypotheses were supported by the multivariate analyses. Detecting support for the theoretically based pathway implies that criminological theories can prove useful in understanding victimization in child sex trafficking. The results of this study validate the stated expectation that certain criminological theories are not only capable of elucidating the causes of juvenile delinquency, but that these same theories can also contribute to

the understanding the origins of specific types of juvenile victimizations, such as child sex trafficking.

In considering the empirical support found for the theoretical propositions assimilated together to frame the pathway into child sex trafficking, several findings deserve highlighting as useful contributions to the existing body of scholarly literature on the subject matter. In previous studies gendered pathways theory and general strain theory had been tested as competing theories to explain juvenile delinquency (Belknap & Holsinger, 2006). However, in this study the two theories were used effectively as complementary in order to develop fuller comprehension of vulnerability to victimization in child sex trafficking. Although gendered pathways theory has been primarily supported through the use of qualitative research methods (for reviews, see Morash, 2006; Salisbury & Van Voorhis, 2009; Simpson et al., 2008; see also, Miller, 2008a, 2008b), this study adds to the emergent body of research using quantitative methods that has found partial support for the sensitizing typology depicting distinctive pathways followed by females enmeshed in criminal environments and activities (Gavazzi et al., 2006; Johansson & Kempf-Leonard, 2009; Salisbury & Van Voorhis, 2009).

Furthermore, the findings from the study compellingly substantiated the key propositions of general strain theory regarding the consequences of family strain. As was implicitly proposed by Agnew et al. (2000) in a discussion on the effects of caregiver strain on children resulting in juvenile delinquency, this study provided convincing evidence for a conceptualization of the transference of strain from caregiver to child transmitted by means of child neglect and abuse that consequently triggers a strain-reactive response in the maltreated child and ultimately leads to victimization in child sex

trafficking. This finding supporting a transgenerational transmission of strain provides substantial validation for general strain theory and the long-lasting and potent influence of strain on families and children.

In addition, the limited availability of reliable data had previously restricted the application of advanced quantitative analysis to enhance the understanding of increased vulnerability to child sex trafficking faced by certain minors. Comparative analyses examining pathways of both victims and nonvictims of child sex trafficking were lacking. Few longitudinal or developmental studies had looked at the process of entrapment in child sex trafficking. As a result, prior research on the topic had not yet established how risks develop and interact to create the heightened vulnerability observed in certain minors (Williams & Frederick, 2009). For example, although family dysfunction and caregiver adversity, such as caregiver substance abuse or mental health problems, had been commonly noted as risk markers for child sex trafficking victims in prostitution (Clawson, 2009; Estes & Wiener, 2005), how these risks operated or functioned to create vulnerability had not been examined.

The use of structural equation models, rather than single equation models, allowed for such extended specification of the theorized mechanisms proposed by this study. One example of the benefits of this methodological approach was the finding that *running away* functioned as both a consequence *and* predictor of sexual victimization. This observation that running away functions as a conduit of revictimization validates findings by previous researchers on runaways that have shown that abused girls who run away are more likely to be sexually exploited in prostitution than those who run away

but have not been previously abused (Saewyc & Edinburgh, 2010; Saewyc, et al., 2008; Scott et al., 2003; Tyler & Johnson, 2006a).

In summary, by using structural equation modeling this study advanced the exploration of the problem of child sex trafficking in the United States. The findings of the study have provided greater comprehension of victim vulnerability by empirically identifying a theoretically framed pathway by which certain minors became entrapped in prostitution. Concurrently, the analyses supplied additional empirical validation of the findings from previous studies focused on child sex trafficking victims that had been based primarily on qualitative methods of research.

In looking ahead, additional targeted research using varied, nationally representative, and even transnational samples is needed in order to confirm and possibly extend the findings regarding this strain-reactive pathway. As mentioned, studies are needed to determine whether this pathway is specific to girls or would apply across both genders. Although this study explored the role of the negative emotion, further investigation into the role of negative emotions, such as guilt, stigmatization, and shame, in elevating vulnerability to victimization is warranted. Yet, these initial suggestions for future research only represent a small fraction of the scholarly research that is needed regarding this poorly understood and often overlooked crime against children.

Directions for Future Research

Indisputably, scholarly research in the area of child sex trafficking is severely lacking (Goździak & Bump, 2008a; Goździak & Collett, 2005; Graycar & McCusker, 2007; Kelly, 2005; Lehti & Aromaa, 2007; Musto, 2009; Tyldum & Brunovskis, 2005;

Williams & Frederick, 2009; Zhang, 2009). Efforts to combat child sex trafficking will continue to be extremely inadequate, limited to blindly battling an undefined adversary and haphazardly applying remedies to victims, until an empirically validated knowledge base becomes available to guide and enhance protection and intervention efforts.

Empirically-based information is crucial to enlighten the public and potentially at-risk youth about the dangers of child sex trafficking and expose inaccuracies within popular culture that glamorize the pimp/ho relationship (Farley, 2003; Kreston, 2000, 2005; Dalla, 2000, 2006). Emerging research on sex traffickers has suggested that traffickers employ recruiters to spy out needy youth or runaways by frequenting their typical or routine locations (Albanese, 2007; Anderson & Michaelson, 2007). The psychological and mental immaturity inherent in all minors (Cauffman & Steinberg, 1995; Steinberg & Scott, 2003; Steinberg, 2010) prognosticate that minors face severe limitations in their capability to detect exploitative motives or defend against the manipulation of sex traffickers and recruiters. An accurate knowledge base is necessary for the preparation of prevention education targeting at-risk minors, warning them about the tactics used by sex traffickers or their recruiters to entrap victims.

Due to previous research findings indicating an association between psychopathy and the common characteristics of sex traffickers or pimps (Spidel et al., 2007), further research endeavors focused on determining whether traffickers generally possess psychopathic tendencies would be beneficial and possibly provide answers regarding the nature of the trafficker and child sex trafficking victim relationship. Babiak and Hare (2007) hypothesized that qualities of psychopaths may facilitate their proficiency and success in criminal activities. Possessing charm and social

manipulation, psychopathic sex traffickers may succeed at recruiting unsuspecting and vulnerable minors. In addition, the common reporting of ruthless treatment of sex trafficking victims corresponds to the psychopath's typical insensitivity and detached disregard for others (Albanese, 2007; Raphael, Reichert, & Powers, 2010). Exploring the common characteristics or psychological profiles of sex traffickers could provide beneficial information on likely crime targets and the tactics that facilitate entrapment into child sex trafficking, such as whether sex traffickers are manipulating minor victims using the "unique set of interpersonal, affective, and lifestyle characteristics (e.g., superficial charm, shallow affect, lack of empathy, manipulateness, parasitic)" typical of psychopathic offenders (Spidel et al., 2006, p. 163).

Ultimately, sex traffickers use the minor's dependency on them to coerce them into prostitution (Albanese, 2007; Priebe & Suhr, 2005; Raphael et al., 2010; Williams et al., 2008). Far different from the glamorized, "pretty woman" myth of prostitution (Farley, 2003; Kreston, 2000, 2005; Dal1a, 2000, 2006), once a child is initially entrapped by a trafficker a grooming process called "seasoning" (Herman, 1992, p. 76) is "used to produce intense loyalty and trauma bonding to the pimp/trafficker" (SHI, 2008, p. 68). Trauma bonding is defined as "a form of coercive control in which the perpetrator instills in the victim fear as well as gratitude for being allowed to live" (HHS, n.d.b, p. 1; see also Dutton & Painter, 1981, 1993; James, 1994; Herman, 1992, 2003; van der Kolk, McFarlene, & Weisaeth, 2007). According to the interviewed law enforcement officials, prosecutors, and social service providers, the missing key to prosecuting child sex traffickers and rescuing the victims is unlocking the trauma-induced bond that develops between them (SHI, 2008). A recent study of sexually exploited youth noted, "while we lack sufficient information about the nature of the relationship that these youth have with

their pimps, clearly there is a strong bond between them that will require a sustained and robust effort by practitioners to break” (Curtis et al., 2008, p. 119). Researchers have not yet conducted in-depth investigations into the nature of the exploitative relationship or trauma bonding between sex traffickers and minor victims, nor has a theoretical framework useful in explaining this phenomenon been developed or assessed. Conducting research focused on understanding the psychological stronghold that traffickers maintain over minor victims is a vital step needed to ensure the successful prosecution of traffickers and the implementation of effective therapeutic interventions concentrated on rescuing and restoring child sex trafficking victims.

In view of the need to identify and dissolve trauma bonds between sex traffickers and minor victims, a standardized instrument is needed for detecting or measuring the level of trauma bonding present in a relationship between a minor and an abusive exploiter, such as a sex trafficker. Such an instrument could be developed based on the trauma bonding items included within the post-traumatic stress index developed by Carnes (1997) and could be constructed similarly to the Stockholm Syndrome Scale used for measuring Stockholm Syndrome in young women in dating relationships (Demarest, 2009; Graham et al., 1995). The newly designed instrument could be adapted for both clinical and research purposes. The included items would detect and measure trauma bonds, i.e., the presence and level of dysfunctional psychological connections to people who are dangerous, shaming, or exploitative (Carnes, 1997). Information provided by such an instrument would assist in answering the research questions regarding the psychological processes generated by the actions of the sex

traffickers and how minors may continue to experience the influence of this bonding with a trafficker even after being separated from the exploitive situation.

Preventing and combating human trafficking are among the most vexing problems currently facing the law enforcement community. The federal government has invested millions of dollars in these efforts, as well as hundreds of state and local law enforcement personnel (General Accounting Office, 2007). Yet, evaluations to ascertain the effectiveness of policies and programs that respond to child sex trafficking victims are almost completely absent. Addressing deficiencies in research on this topic, Laczko (2005) concluded that there have been very few “systematic studies of the role of actors involved in the fight against trafficking, such as service providers, law enforcement agencies, and NGOs [nongovernmental organizations]” (p. 14). Evaluation research is necessary to assist policy makers in implementing effective strategies and to guide social service providers toward best practices focused on rescuing and restoring victims. Such evaluations are vitally important for law enforcement and other professionals working in the criminal justice system to facilitate and aid their efforts to protect victims and prosecute traffickers (GAO, 2007).

Conclusion

Estes and Weiner (2005) stated that although the many faces of children that experience sexual exploitation are continually changing, the socio-psychological dynamic remains constant; an overpowering offender controls the child for sexual, economic, or other benefit. Speaking out about the plight of such vulnerable minors, the Federal Advisory Committee on Juvenile Justice (2007) reported,

Juveniles involved in prostitution tend to be the most vulnerable of youth. Many have histories of victimization, trauma, abuse, and neglect. Many have experienced homelessness and other forms of abandonment. Many become involved in prostitution to meet basic needs when social service providers and/or other responsible adults have failed to provide (p. 28).

The results of this study suggest that abused and neglected minors, already bearing a disproportionate amount of strain and adversity due to harmful family conditions, unfairly become the very minors who are most likely to endure further victimization in child sex trafficking in prostitution. Imparting information regarding the compounding effects of family adversity, child maltreatment, and its undeserved consequences may help to equip law enforcement officials, child protection professionals, and child advocates with crucial information needed to craft effective safeguards to prevent or impede victimization in child sex trafficking thereby preventing future harm to vulnerable minors.

The development and analytic assessment of a theoretical framework useful in explaining victimization in child sex trafficking that can be repeatedly applied and evaluated in future research was a main objective of this study. The incorporation of criminological theory into the theoretical framework of this research revealed that the field of criminology is able to adeptly provide a greater understanding of the problem of child sex trafficking in the United States. As a result, this study signifies that the remedy to the neglect by academic research of the topic of child sex trafficking may lie within the field of criminology. Although abolishing this crime against children in the United States will require an interdisciplinary effort, the necessity of extensive involvement and

participation by criminologists and criminal justice professionals in the efforts to protect minors from victimization in sex trafficking should not be underestimated. This study indicates that criminological theory and research can make meaningful contributions to understanding and eradicating the crime of child sex trafficking.

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