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Examining the Intersections of Family Risk, Foster Care, and Outcomes for Commercially Sexually Exploited Children

Courtney Furlong * and James Benjamin Hinnant

Department of Human Development and Family Science, Auburn University, Auburn, AL 36849, USA; jbh0020@auburn.edu

* Correspondence: furloca@auburn.edu

Abstract: Purpose: When individuals under the age of 18 are victimized by sex trafficking, it is termed commercial sexual exploitation of children (CSEC) in the United States. It is suggested that a history of engagement with the foster care system is one of the leading risk factors for CSEC. However, it is possible that it is the very factors that facilitate engagement with the foster care system (e.g., neglect, abuse, etc.) that establish vulnerability for CSEC victimization rather than the foster care system itself and that the foster care system serves a protective role for such victims. The purpose of this investigation is to examine the relationship between risk factors within the family of origin, foster care experiences, and outcomes for CSEC victims. Methods: Between 2014 and 2023, data were collected on minor victims of CSEC (n = 884) via the Child and Adolescent Needs and Strengths Assessment for Commercial Sexual Exploitation (CANS-CSE). Investigators conducted regression analyses to examine the relationship between family risk and foster care engagement (Aim 1). Foster care engagement (Aim 2) and number of foster care placements (Aim 3) are tested as moderators of associations between family risk factors and outcomes for youth. Results: Family risk is significantly associated with negative outcomes. Foster care placement and number of foster care placements do not moderate the link between family risk factors and negative outcomes for victims of CSEC. Conclusions: Results suggest that foster care does not protect against risks associated with families of origin and negative outcomes, a finding that may be unique for CSEC victims. Therefore, specialized, trauma-informed services should be implemented with CSEC victims who are engaged in the foster care system. In doing so, foster care could begin to serve a protective role in supporting young victims of CSEC and producing more positive outcomes.

Keywords: sex trafficking; commercial sexual exploitation of children; foster care; youth outcomes

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1. Introduction

When anything of value (e.g., money, housing, food, drugs, etc.) is given in exchange for a sex act (e.g., intercourse, exotic dancing, pornography, fondling, etc.), it is termed commercial sexual exploitation (Furlong and Hinnant 2024). In the United States, sex trafficking is defined as the commercial sexual exploitation of an individual by means of force, fraud, or coercion (TVPA 2000, 22 U.S.C. §§ 7101). When individuals under the age of 18 are victimized by sex trafficking, it is termed the commercial sexual exploitation of children (CSEC), and the conditions of force, fraud, or coercion are not required.

Each year from 2019–2022, the United States Department of State announced via its Trafficking in Persons (TIP) reports that a history in the foster care system is a primary risk factor for CSEC victimization (United States Department of State 2019, 2020, 2021, 2022). Survivors and direct-service practitioners agree that there is an undeniable link between the two (Romero et al. 2019). Lawmakers, like United States Senator Jon Ossoff (GA), have reached out to direct service organizations to discern opportunities for policy changes related to trafficking and the foster care system. However, it is possible that it is the very factors that facilitate engagement with the foster care system (e.g., neglect, abuse, etc.) that

establish vulnerability for CSEC victimization (as in Farley et al. 2004; Farley and Kelly 2000; Fedina et al. 2019; Silbert and Pines 1981) rather than the foster care system itself. Indeed, risk and protective factors exist within the individual as well as in the systems surrounding that individual (Bronfenbrenner 1979). Associations between the family system, the foster care system, and the CSEC victim's internal and external needs and strengths need to be better understood. Although causal effects cannot be established with the current data, the researchers investigate direct associations between family risks, foster care, and outcomes for CSEC victims, as well as whether foster care serves a protective role in the association between family risks and outcomes.

2. Literature Review

2.1. Family Risks and Foster Care

Approximately 400,000 children in the United States are actively engaged with foster care services (United States Department of Health and Human Services 2023). The primary reason for engagement with foster care services is overwhelmingly neglect (62%), followed by parental substance abuse (39%), caretaker inability to cope (due to physical or mental illness or disability; 13%), physical abuse (13%), inadequate housing (11%), parental incarceration (6%), abandonment (5%), and sexual abuse (4%). Youth engaged in foster care services are placed in foster family homes (non-relative, 44%; and relative, 34%), pre-adoptive homes (5%), institutions (5%), group homes (4%), trial home visits (4%), and supervised independent living (2%).

Data have consistently shown that youth with a history of foster care placement(s) have poorer long-term outcomes in areas related to health, education, housing, financial stability, substance abuse, and criminal behavior when compared to youth who are not engaged with foster care services (Lindner and Hanlon 2023). The literature further suggests marked differences between youth with a history of foster care engagement in that those who were in stable, long-term foster care placement had more positive outcomes (Font et al. 2018; Kerman et al. 2002; Scott 2022). Therefore, it is possible that foster care placement could serve as a protective factor for youth with substantial risks and needs, like those with significant trauma histories and victims of CSEC.

2.2. Commercial Sexual Exploitation of Children (CSEC) and Foster Care

Sex trafficking, or the commercial sexual exploitation of children (CSEC; i.e., domestic minor sex trafficking), is a crime according to the U.S. federal definition (TVPA 2000, 22 U.S.C. §§ 7101). Assault, disease, and murder are just a few of the negative outcomes associated with CSEC (Farley et al. 2004; Potterat et al. 2004). Survivors report that such outcomes are a result of physical violence, psychological disorders related to traumatic experiences, unsafe and violent sex acts, unsanitary living and working conditions, addiction, and restrictions in access to healthcare (Gajic-Veljanoski and Stewart 2007).

There are a number of pre-existing vulnerabilities for CSEC, including poverty, neglect, abuse, academic failure, and mental health disorders (Clawson et al. 2016; Cronley et al. 2016; Farley et al. 2004; Farley and Kelly 2000; Fedina et al. 2019; Furlong and Hinnant 2024; McClain and Garrity 2011; Norton-Hawk 2001; Silbert and Pines 1981). Foster care is listed as an additional risk factor for CSEC, and it is suggested that trauma related to foster care experiences plays a significant role in establishing vulnerabilities for exploitation (Balchan 2018; Clawson et al. 2016; Gibbs et al. 2018; Greenbaum et al. 2023; United States Department of State 2019, 2020, 2021, 2022). It is estimated that as many as 90% of CSEC victims have had some contact with the child welfare system (Gibbs et al. 2018). Gibbs et al. (2018) found that victims of CSEC in foster care were twice as likely to have experienced abuse or maltreatment than youth in foster care who had not been victimized by CSEC. Unfortunately, there is very little literature examining the links between foster care and CSEC, and the associations between family risks, foster care, and outcomes for CSEC victims remain unclear.

2.3. The Present Study

Utilizing data collected from 884 minor victims of CSEC, the purpose of this investigation is to better understand the relationships between risk factors within the family of origin, foster care, and outcomes for CSEC victims. The first aim of the study considers the link between family risk and foster care for victims of CSEC (Aim 1). Reflecting the literature, it is hypothesized that there will be meaningful links between family risk, foster care placement, and number of foster care placements for victims of CSEC (Aim 1). Then, the investigation will examine if foster care moderates associations between family risks and outcomes (i.e., whether it acts as a vulnerability or plays a protective role; Aims 2 and 3). Aim 2 considers family risk, any history of out-of-home placement into foster care, and outcomes. The investigators hypothesize that family risk will be associated with more negative outcomes and moderated by foster care placement such that foster care placement plays a protective role for victims of CSEC (Aim 2). Aim 3 examines the associations between family risk and outcomes, utilizing number of foster care placements as a potential moderator. It is hypothesized that lower number of foster care placements will be significantly linked to improved outcomes for victims of CSEC (Aim 3). These findings are critical in increasing targeted supports for victims of CSEC in the foster care system.

3. Methods

3.1. Data Collection Procedures

Between 2014 and 2023, data were collected on minor victims of commercial sexual exploitation (n = 884) as part of an intake process of a direct service nonprofit organization located in the state of Georgia in the United States. Licensed social workers utilized the Child and Adolescent Needs and Strengths Assessment for Commercial Sexual Exploitation (CANS-CSE; Praed Foundation 2021) to develop a better understanding of the lived experiences of the youth as well as identify needs and necessary services. Along with qualitative data, social workers ranked youth from zero (Not applicable) to four (Severe/Strong) in areas related to family supports, system risk factors, educational needs, physical, mental, and sexual health, and internal and external strengths. In 2018, client identification numbers were changed from a four-digit number to a nine-digit number. Due to a clerical error, many of the client identification numbers were not linked to the CANS-CSE assessments. Therefore, demographic data regarding age, gender, and race/ethnicity are missing for approximately half of the sample. See Table 1 for Sample demographics. These data are used with permission from Street Grace, and all research activities were conducted under the oversight of Auburn University's Institutional Review Board (IRB) under protocol #23-661 EX 2401.

3.2. Street Grace Program Description

Established in 2008, Street Grace is a 501(c)3 nonprofit organization that utilizes demand reduction strategies to address CSEC. Street Grace's initiatives employ technology, policy experts, and programming to increase awareness, educate, and enable action against the exploitation of children. Guided by a survivor advisory board, Street Grace ensures that all of its efforts are survivor-informed and developed through a lived-experience lens.

Street Grace serves child victims with client intake, comprehensive case management, protection and safety planning, and services to promote physical and mental well-being. Street Grace operates a 24-h hotline where a team of licensed social workers provide essential services to those experiencing, or those at risk of, CSEC. In 2020, Street Grace merged with Georgia Cares (formerly Georgia Care Connection), which has been providing direct services throughout the state of Georgia since 2014. Once a potential victim is identified through the hotline or by referral, Street Grace's Hotline and Assessment Program Manager conducts an initial assessment to confirm human trafficking victimization based on the federal legal definition of human trafficking followed by an in-person assessment

using the CANS-CSE tool within 48 h of referral. The information collected through the CANS-CSE is used to establish therapeutic goals.

Once a youth has been assessed and identified as a confirmed victim of CSEC, Street Grace provides comprehensive case management services for approximately one year, though length of services may vary based on the needs of each youth. Services available to CSEC victims include development of an individualized care plan, attending court hearings and providing criminal-justice-system-based advocacy, referrals to trauma-focused therapy and other forms of mental health treatment, social services advocacy and explanation of benefits/entitlements, assistance procuring personal documents, meeting tangible needs, educational support, and providing information about victim's compensation and victim's rights. For services that are not provided by Street Grace, staff will make referrals to community partners. Young people aging out of youth services are connected to adult service providers and receive follow-up services after case closure. Street Grace serves victims of CSEC of all genders.

3.3. Participants

CANS-CSE assessments were administered to confirmed CSEC victims (n = 884) who were referred for services to Street Grace, a nonprofit located in the state of Georgia in the United States. Victims of CSEC identified as female (95%), male (4%), and transgender (1%). The racial/ethnic background of victims are as follows: 56.5% Black/African American, 30.2% White/Caucasian, 6.9% Hispanic/Latino, 3.6% multiracial, 1.0% Asian, 0.4% American Indian/Alaskan Native, and 0.4% Pacific Islander. See Table 1 for Sample Demographics.

Youth were an average age of 14 years old at onset of exploitation (*min* = 3, *max* = 19). The average length of exploitation was eight months and eight days (*min* = less than one day, *max* = 10 years). Victims describe the person who recruited them into exploitation as a friend (32%), romantic partner (24%), someone they met online (13%), stranger (13%), parent (7%), other family member (5%), or romantic partner of parent (5%). One-quarter (26%) of victims were exploited online. Victims were identified in 50% of the 159 counties in Georgia.

Table 1. Sample demographics.

	Current Age (n = 478)	**Age of Entry into Exploitation (n = 600)**	**Length of Exploitation (in Days) (n = 484)**	**Age Physical Abuse Began (n = 372)**	**Age Sexual Abuse Began (n = 484)**
Mean	15.10	14.03	248.06	10.48	10.56
Median	15	14	82.50	12	12
Mode	15	15	1	13	13
Min	5	3	1	0	1
Max	19	19	3650	18	18
Standard Deviation	1.725	2.372	420.967	4.448	4.040
Race/Ethnicity (n = 467)	Percentage (%)				
American Indian (Native American)	0.37%				
Asian	1.12%				
Black	56.45%				
Caucasian (White)	30.28%				
Hispanic	6.92%				
Multiracial	4.11%				
Pacific Islander	0.37%				

Table 1. *Cont.*

	Current Age (n = 478)	Age of Entry into Exploitation (n = 600)	Length of Exploitation (in Days) (n = 484)	Age Physical Abuse Began (n = 372)	Age Sexual Abuse Began (n = 484)
Gender (n = 478)			Percentage (%)		
Female			95.00%		
Male			3.88%		
Transgender			1.11%		

3.4. Measures

Child and Adolescent Needs and Strengths Assessment for Commercial Sexual Exploitation (CANS-CSE)

The Child and Adolescent Needs and Strengths Assessment (CANS; Praed Foundation 2021) is a cumulative risk tool developed to assist youth service providers with gathering information, establishing goals, and monitoring outcomes. All information gathered through the CANS comes from the youth's perspective. According to the Praed Foundation (2021), the CANS is widely used by both public and private organizations in all fifty states and worldwide, and its validity and reliability have been discussed in several studies (Alamdari and Kelber 2016; Anderson et al. 2003; Dilley et al. 2007; Van Hiel et al. 2018). The Child and Adolescent Needs and Strengths Assessment for Commercial Sexual Exploitation (CANS-CSE) is a version of the CANS developed for the Street Grace program that incorporates information about sexual exploitation experiences and other related vulnerabilities. Generally, each item has five levels, coded as follows: For Needs, 0 = Not applicable (where appropriate); 1 = No evidence; 2 = Watchful waiting/prevention; 3 = Action; and 4 = Immediate/Intensive Action. For Strengths, 0 = Not applicable (where appropriate); 1 = No strength identified; 2 = Identified strength must be built; 3 = Strength that you can use in planning; and 4 = Centerpiece strength. The CANS has a reliability score of 0.90 (Praed Foundation 2023). See Table S1 in the Supplementary for a detailed list of CANS-CSE items.

Family Risk.

"Family Risk" is used as a predictor and includes 10 items reflecting risk factors within the family of origin along with six abuse items assessing physical, emotional, and sexual abuse. Scores between zero and four on each item were added together to create a total score representing Family Risk. The 10 items measuring risk factors within the family of origin cover the child's caregiving role for other children and/or adults, supervision history, abandonment, witnessing domestic violence, parental criminal behavior, parental solicitation history, exposure to substance abuse, and household transience. The abuse items discuss physical abuse, emotional abuse, age of onset of sexual abuse, duration of sexual abuse, emotional closeness to perpetrator (for sexual and physical abuse), and reaction to disclosure (for sexual and physical abuse). Higher scores indicate increased Family Risk.

Needs.

Outcome variables include all of the Needs items, excluding the family risk and abuse items. "Needs" covers topics related to System Risk Factors, Educational Needs, Physical Health Needs, Mental Health Needs, and Sexual Health Needs. System Risk Factors include placement history, residential stability, elopement/runaway history, arrests for loitering/solicitation, other arrests, and incarcerations/detentions (including juvenile hall). Sub-items related to running away include frequency of running, consistency of destination, safety of destination, involvement in illegal activities, likelihood of return on own, involvement with others, realistic expectations, and planning. Educational Needs include educational attainment, time out of school, prior school success, and attitude toward education. Physical Health Needs include physical/medical needs. Mental Health Needs cover

self-injuring behavior, suicide risk, danger to others, psychiatric hospitalizations, medication compliance, eating disturbances, sleep, reality testing/psychosis, depression/mood, anxiety, impulse control, oppositional behavior (compliance with authority), affect regulation, dissociation, adjustment to trauma, attachment difficulties, and substance abuse. Sub-items related to substance abuse include severity of use, duration of use, stage of recovery, peer influences, environmental influences, and perpetrator/exploiter influence. Finally, Sexual Health Needs cover intimate relationships, unprotected intercourse, sexually transmitted diseases, pregnancies, abortions, duration of exploitation, age at onset (of exploitation), perception of dangerousness (of exploitation), knowledge of exploitation, trauma bond (to exploiter), and exploitation of others. Scores between zero and four on each item were added together to create a total score representing Needs such that higher scores indicate increased Needs.

Strengths.

Both internal and external strengths make up the outcome variable representing youths' total "Strengths". Internal Strengths include talents/interests, optimism, leadership, peer relations, creativity/imagination, self-expression, life skills, youth involvement with recovery, decision-making, and resiliency. External Strengths cover topics like family support, natural supports, community involvement, cultural identity, and spiritual/religious strengths. Scores between zero and four on each item were added together to create a total score representing Strengths such that higher scores indicate increased Strengths.

Foster Care.

Two measures for foster care are used to examine the relationship between Family Risk and Foster Care on outcomes (i.e., Needs and Strengths) for CSEC victims. Utilizing information recorded in the placement history variable, a new yes/no variable was created as the first measure examining the relationship between Family Risk and Foster Care. A code of 1 indicates that the youth had a history of out-of-home placement in the foster care system, and a code of 0 indicates that the youth did not have a history of out-of-home placement in the foster care system. This variable, referred to as "Foster Care", is used to address Aim 2 of this investigation. For the second foster care measure, social workers logged the estimated number of out-of-home placements for each youth. This variable, referred to as "Number of Foster Care Placements", is used in Aim 3 to examine if lower number of out-of-home placements improves youth outcomes (i.e., decreased Needs and increased Strengths).

Control Variable.

To account for the cumulative differences between youth of younger and older ages, "Age" is added as a covariate in all models.

3.5. Plan of Analysis

3.5.1. Preliminary Analyses

First, descriptive statistics and frequencies of predictors and outcomes were evaluated using the Statistical Package for Social Sciences (SPSS) version 29.0.2.0 (IBM Corporation 2023). Missing data were coded as −99 and addressed using Full Information Maximum Likelihood estimation (FIML; Enders 2010) in regression analyses as appropriate.

3.5.2. Primary Analyses

Based on preliminary analyses of the means, variances, and distributions of the outcome variables, investigators chose the most appropriate form of regression analyses to examine the relationship between Family Risk and Foster Care (Aim 1). Then, Family Risk and Foster Care engagement (Aim 2), along with Number of Foster Care Placements (Aim 3), are used as potential moderators to examine the possible impact of foster care on improving outcomes for youth (Memon et al. 2019). Aim 3 uses a subsample analysis of only youth with a history of out-of-home placement within the foster care system. Primary analyses were conducted using MPlus (Muthén and Muthén 2017).

All predictor variables are grand-mean-centered and allowed to covary with one another. The residual variances of Strengths and Needs are also allowed to covary, resulting in a saturated model. Thus, there are no interpretable model fit indices. If a significant interaction was detected, post hoc simple slope analyses are conducted to examine the association between Family Risk and the dependent variables at conditional values of the moderators (i.e., 0 or 1 for Foster Care and ±1 standard deviation for Number of Foster Care Placements).

4. Results

4.1. Preliminary Analyses

The majority (87%) of the CSEC victims have a history of significant trauma. More than half (53%) report a history of physical abuse, 66% report a history of sexual abuse, and 64% report a history of emotional abuse. Nearly half (46.29%) report experiencing both physical and sexual abuse, and the average age youth report first experiencing physical and/or sexual abuse is 10 years old. More than half (54%) of victims report witnessing domestic violence in their homes. Two-thirds of victims have one or more parents with a history of criminal behavior. Furthermore, 35% of victims have a caregiver who uses substances such that it interferes with their ability to provide care, and 28% of victims were exposed to drugs or alcohol in the home and/or in utero. The majority of victims (89%) have a history of running away, and two-thirds (68%) report a history of drug and/or alcohol abuse. More than half (58%) report difficulty sleeping. In 54% of cases, victims report a history of self-injurious behavior, and 55% report a history of suicidal ideation and/or suicide attempts.

Approximately 65% of victims have a history of out-of-home placement in foster care, and the average number of out-of-home placements is 3.47. Although two-thirds of the sample report experiencing physical and/or sexual abuse, only 1.5% of victims report experiencing sexual abuse in foster care, and 3.1% report experiencing physical abuse in foster care. Perpetrators of sexual abuse are described as a friend (24.5%), stranger (16.8%), romantic partner of a parent (13.5%), biological parent (10.6%), cousin (8.4%), biological sibling (4.6%), biological aunt or uncle (4.4%), romantic partner (3.3%), neighbor (3.1%), exploiter (2.9%), as well as others. Perpetrators of physical abuse are primarily described as a biological parent (48.3%), romantic partner of a parent (10.7%), romantic partner (10.7%), exploiter (5.7%), biological aunt or uncle (5.2%), biological grandparent (4.4%), stranger (3.7%), friend (3.1%), as well as others.

Bivariate correlations examine the associations between the study variables (Table 2). Both foster care variables are significantly positively correlated with the Family Risk and Needs and negatively correlated with Strengths. Family Risk is significantly positively correlated with both Needs and Strengths. Interestingly, Needs and Strengths are not significantly correlated with one another.

Table 2. Bivariate correlation and descriptives.

	Foster Care (Yes/No)	Number of Foster Care Placements	Strengths	Needs	Family Risk
Foster Care (Yes/No)	-	0.458 ***	−0.141 ***	0.104 **	0.242 ***
Number of Foster Care Placements		-	−0.140 ***	0.167 ***	0.222 ***
Strengths			-	−0.023	0.089 **
Needs				-	0.421 ***
Mean	0.65	3.47	34.85	94.47	25.03
Minimum	0	1	1	4	1
Maximum	1	40	53	158	52
Standard Deviation	0.476	3.973	7.041	25.03	8.178

** Correlation is significant at the 0.01 level (2-tailed). *** Correlation is significant at the 0.001 level (2-tailed).

4.2. Primary Analyses

4.2.1. Aim 1: Family Risk and Foster Care

To examine the relationship between Family Risk and engagement with the Foster Care system for CSEC victims, a logistic regression model was conducted utilizing the full sample. Family Risk is positively associated with Foster Care placement (i.e., no, yes; $B = 0.05$, $p < 0.001$) and accounts for 4% of the variance. Next, a linear regression model was conducted using the subsample of youth with a history of out-of-home placements to examine the relationship between Family Risk and Number of Foster Care Placements. Family Risk is positively associated with Number of Foster Care Placements ($B = 0.06$, $p = 0.001$) and accounts for 3% of the variance. See Table 3 for Binomial logistic regression model results for family risk and foster care and Table 4 for Linear regression model results for family risk and number of foster care placements.

Table 3. Binomial logistic regression model results for family risk and foster care.

	Foster Care	
	Estimate	**Standard Error**
Threshold	0.533	0.897
Family Risk	0.046 ***	0.012
R-squared	0.040 *	0.020

Results reported are unstandardized. * Indicates significance at the 0.05 level. *** Indicates significance at the 0.001 level.

Table 4. Linear regression model results for family risk and number of foster care placements.

	Number of Foster Care Placements	
	Estimate	**Standard Error**
Intercept	0.167	1.430
Family Risk	0.063 **	0.021
R-squared	0.031	0.016

Results reported are unstandardized. ** Indicates significance at the 0.01 level.

4.2.2. Aim 2: Family Risk, Foster Care, and Outcomes

To examine the relationship between Family Risk, Foster Care, and Needs and Strengths (Aim 2), a linear regression model was conducted utilizing the full sample. Family Risk is positively associated with Needs ($B = 1.47$, $p < 0.001$). Foster Care placement is not associated with Needs, and the interaction between Family Risk and Foster Care on Needs is not significant. Family Risk is not associated with Strengths, and Foster Care placement is negatively associated with Strengths ($B = -2.21$, $p < 0.001$). The interaction between Family Risk and Foster Care is not significant. The predictors account for 22% of the variance in total Needs and 5% of the variance in Strengths. See Table 5 for Linear regression model results for family risk, foster care, and needs and strengths.

Table 5. Linear regression model results for family risk, foster care, and needs and strengths.

	Foster Care			
	Needs		**Strengths**	
	Estimate	**Standard Error**	**Estimate**	**Standard Error**
Intercept	68.515 ***	9.103	37.747 ***	2.709
Family Risk	1.474 ***	0.217	0.032	0.087
Foster Care	−0.353	1.674	−2.212 ***	0.541
Interaction of Family Risk and Foster Care	−0.194	0.251	0.150	0.097
R-squared	0.218 ***	0.031	0.049 **	0.018

Results reported are unstandardized. ** Indicates significance at the 0.01 level. *** Indicates significance at the 0.001 level.

4.2.3. Aim 3: Family Risk, Number of Foster Care Placements, and Outcomes

A linear regression model was conducted using only youth who have a history of out-of-home placements to examine the relationship between Family Risk, Number of Foster Care Placements, and Needs and Strengths (Aim 3). Family Risk is positively associated with Needs (B = 1.06, $p < 0.001$), and Number of Foster Care Placements is positively associated with Needs (B = 0.63, p = 0.009). The interaction between Family Risk and Number of Foster Care Placements on Needs is not significant. Family Risk is not associated with Strengths, though Number of Foster Care Placements was negatively associated with Strengths ($B = -0.24$, p = 0.001). The interaction between Family Risk and Number of Foster Care Placements is not significant. The predictors account for 16% of the variance in Needs and 3% of the variance in Strengths. See Table 6 for Linear regression model results for family risk, number of foster care placements, and needs and strengths.

Table 6. Linear regression model results for family risk, number of foster care placements, and needs and strengths.

Number of Foster Care Placements				
	Needs		**Strengths**	
	Estimate	**Standard Error**	**Estimate**	**Standard Error**
Intercept	77.635 ***	11.059	36.409 ***	3.117
Family Risk	1.059 ***	0.163	0.031	0.046
Number of Foster Care Placements	0.634 **	0.242	−0.235 ***	0.072
Interaction of Family Risk and Number of Foster Care Placements	−0.011	0.028	0.014	0.009
R-squared	0.160 ***	0.032	0.027 *	0.013

Results reported are unstandardized. * Indicates significance at the 0.05 level. ** Indicates significance at the 0.01 level. *** Indicates significance at the 0.001 level.

5. Discussion

The purpose of this investigation is to examine the link between the commercial sexual exploitation of children (CSEC) and foster care. To that end, the investigators consider the relationship between family risk factors (e.g., abuse and neglect), foster care, and outcomes of victims of CSEC. Results from preliminary analyses support previous findings in the literature that suggest that there are a significant number of CSEC victims who are engaged in the foster care system (Gibbs et al. 2018). Youth in this investigation report significant trauma, including physical, emotional, and sexual abuse, neglect, exposure to substances and domestic violence, and mental health disorders, including suicidal ideation and suicide attempts. Bivariate correlations suggest significant relationships with Family Risk, Foster Care, and Needs (i.e., system, educational, health, and mental health risks). However, the links to Strengths (i.e., resilience, optimism, creativity, peer relationships, etc.) are not as strong.

For the primary analyses, it was hypothesized that foster care would play a protective, moderating role in associations between Family Risk and outcomes for CSEC victims. However, no moderation effects are found. Results suggest that the main effect of Family Risk on Needs and Strengths for CSEC victims does not depend on Foster Care placement. In other words, Foster Care placement does not protect against—nor increase risk due to—risk factors associated with family of origin on outcomes. It was then hypothesized that higher Number of Foster Care Placements would increase Needs and lower Strengths to reflect findings from similar studies on youth in foster care who were not necessarily victimized by CSEC (Font et al. 2018; Kerman et al. 2002; Scott 2022). However, Number of Foster Care Placements neither protects against nor increases risks associated with families of origin on outcomes. These null findings appear to be unique to the CSEC population compared to youth in foster care who were not necessarily victimized by CSEC. The main

effects of foster care placement are mixed in that it is associated with decreased Strengths but not with increased Needs. Number of Foster Care Placements was more consistently associated with both lower Strengths and higher Needs.

The specific mechanisms linking foster care and outcomes for CSEC victims are unclear and may exist at the individual and systemic levels (Bronfenbrenner 1979). CSEC victims have increased needs related to trauma histories, coping strategies, mental health, and biological health when compared to other at-risk youth (Farley et al. 2004; Farley et al. 2005; Gajic-Veljanoski and Stewart 2007; Krumrei and Fitzgerald 2013; Palines et al. 2020; Potterat et al. 2004). With the shortage of quality placement options and other issues within the welfare system, the system may not be organized to best serve such children (Lin et al. 2016). In fact, the use of group homes may increase vulnerability as it has been linked to increased attachment issues, anxiety, and likelihood of running away (Dworsky et al. 2018; Karam and Robert 2013; Kerns and Brumariu 2014). Peer-to-peer recruitment into CSEC is an additional risk related to group homes (Family and Youth Services Bureau 2024). Improvements within the foster care system are a priority for advocates and lawmakers alike, and the number of youth in out-of-home care has decreased over the last four years (United States Department of Health and Human Services 2023). However, concern over the link between foster care and CSEC vulnerability is growing, though evidence for a causal and directional effect is unclear (United States Department of State 2019, 2020, 2021, 2022).

5.1. Implications

The findings from this investigation provide greater insight into the complex lives of CSEC victims both in and out of foster care. Moreover, the results bring the field closer to understanding the links between family risks, foster care, and outcomes for CSEC victims and will assist policymakers and advocates in getting closer to addressing specific aspects of the foster care system that may assist in producing more positive outcomes for youth in care. Since two-thirds of the sample reported a history of out-of-home placement, the foster care system should be an especially appealing target for prevention and intervention strategies critical to producing positive outcomes for these youth. Specialized, trauma-informed services for youth in foster care may assist in decreasing vulnerability. Additional resources for mental health, substance abuse, and missing and disconnected youth (i.e., runaways) may also decrease the likelihood of CSEC victimization. Accurate and ongoing recordkeeping that tracks youth abuse histories, placement history, and quality of care will assist case managers in making informed decisions about services. Ultimately, child welfare services need more foster placement options for youth, including specially trained, therapeutic placements that are CSEC-certified.

An additional implication to consider is the importance of community training, intervention opportunities, and safe adults throughout the lives of all youth, like within school systems, community organizations, and churches, etc. The youth in this sample had at least one safe adult in their lives who was trained to recognize risk signs, intervened, and knew where to refer the youth for services. A unique finding of this study is the positive correlation between increased family risk and increased strengths scores for victims of CSEC. It is possible that the attributes that make up strengths scores (e.g., optimism, resilience, creativity/imagination, self-expression, cultural identity, religious practices, etc.) are strengths that have been, or can be, honed through adversity. Such strengths may provide opportunities for targeted intervention and recovery planning.

5.2. Strengths

There are a number of strengths associated with this novel investigation. First, the findings add to the dearth in the literature and provide a deeper understanding of the lives of CSEC victims along with insight into the link between risks within the family of origin, CSEC, foster care, and outcomes. Due to ethical issues, as well as the criminal and covert nature of the crime of CSEC, minor victims of CSEC are a notoriously difficult population for researchers to reach. Consequently, the average sample sizes for studies examining

CSEC are somewhere between 87 and 145 (Franchino-Olsen 2021; Twis and Shelton 2018). The large sample size in this study of CSEC victims (n = 884), along with those who have (n = 565) and have not (n = 299) engaged with the foster care system, allows for unique insight into the complex lives of CSEC victims, both between- and within-group analyses, and greater generalizability of the study's findings.

5.3. Limitations

The results of this investigation provide novel insight into the link between family risk, foster care, CSEC, and youth outcomes. Still, there are limitations related to the study. First, the investigation relied on data reported by the youth. It is possible that the youth refused to answer some questions or that they did not answer honestly. It is also possible that all instances of abuse or maltreatment went unreported. Even so, the authors would like to note that they are committed to honoring the voices and stories of survivors of commercial sexual exploitation and using the data as they are reported.

Next, specifics of the youth's foster care experiences beyond number of placements (e.g., placement with siblings, quality of foster care, attachment to foster caregivers, etc.) are unknown, though they could play a critical role in better understanding positive outcomes for youth. The CANS-CSE tool is an additional limitation in that it does not collect information on all variables that might influence outcomes, like socioeconomic status (SES), mental health status, or accessibility of community resources. Missing demographic information caused by clerical error, such as age, may have influenced results since age was used as a control variable. In addition, though the findings bring some clarity to the relationship between foster care, CSEC, and youth outcomes, cross-sectional data does not allow for the investigators to determine a causal relationship and is not capable of answering the question of whether the foster care system itself establishes risk for CSEC regardless of risks associated with families of origin. Finally, the sample only represented CSEC victims who successfully accessed CSEC-specific services while still minors. Therefore, findings may not represent a significant portion of the population who go unidentified, lacked a safe adult in their lives, or did not enter services (CSEC services or foster care) for other reasons.

5.4. Future Directions

The findings from this analysis present several opportunities for future research. Primarily, longitudinal data are necessary to better understand the links between foster care and outcomes for CSEC victims and directionality of effects. Longitudinal data are critical in the ongoing exploration into evidence-based interventions for both minor and adult (or those who have aged out of care) victims of CSEC that produce positive long-term outcomes. Information about individual experiences with the foster care system would provide greater insight as well as suggest potential opportunities for interventions. For example, the quality of foster care, attachment to foster caregivers (Bowlby 1969), and nature of the relationship with the families of origin may affect long-term outcomes. Out-of-home placement with siblings may also produce more positive outcomes for victims of CSEC (Leathers 2005). Such data should be collected, catalogued, accessible, and tracked across the entirety of each youth's tenure with the foster care system. Furthermore, additional future control variables might include socioeconomic status, mental health status, and the accessibility of community resources. Lastly, between-group analyses of the differences between at-risk youth and CSEC victims may provide clearer insight into the protective elements of foster care that need to be adjusted or improved to better support CSEC victims, as well as assist the development of strategies to prevent CSEC victimization.

6. Conclusions

The purpose of this investigation is to develop a better understanding of the relationships between risk factors within the family of origin, foster care, and outcomes for CSEC victims. The preliminary analyses of 884 confirmed victims of CSEC suggest that victims in

and out of foster care have a history of profound trauma related to their families of origin while also exhibiting unique strengths. The first aim of the study considers the link between Family Risk variables and Foster Care. Family Risk has a small, though significant, positive association with both Foster Care and Number of Foster Care Placements and accounts for 4% and 3% of the variance, respectively. Aims 2 and 3 seek to examine if Foster Care experiences, along with Number of Foster Care Placements, moderate associations between Family Risks and outcomes (i.e., Needs and Strengths). Results suggest that foster care neither protects against nor increases risks for negative outcomes related to families of origin for CSEC victims, a finding distinctive to this population. Future research should seek to target specific aspects of the foster care system, as well as evidence-based interventions for CSEC victims, to produce more positive outcomes for youth in care. In doing so, foster care could begin to serve a protective role in preventing exploitation, supporting victims of CSEC, producing more positive outcomes, and launching them into their promising futures.

Supplementary Materials: The following supporting information can be downloaded at: https://www.mdpi.com/article/10.3390/socsci13120660/s1. Table S1. Child and Adolescent Needs and Strengths (CANS-CSE) Assessment for Commercial Sexual Exploitation (CANS-CSE).

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