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Understanding the Physical and Psychological Health and Wellness Needs of Minor Sex Trafficking Victims

2020-VT-BX-0111

FINAL TECHNICAL REPORT
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Note:

"This project was awarded by the National Institute of Justice, Office of Justice Programs, U.S. Department of Justice (2020-VT-BX-0111). The opinions, findings, conclusions, and recommendations expressed in this document are those of the authors and do not necessarily reflect those of the U.S. Department of Justice or Northeastern University, University of New Hampshire, Boston University, RTI International, their trustees, or their funders"

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The data collected for this report would not have been possible without the cooperation of the many providers and staff members within the service agencies that serve this population. We are incredibly grateful for their assistance in facilitating access to young people in their programming and for sharing their insights, experiences, and recommendations. Lastly, we are profoundly thankful to the young people and adult survivors who shared their experiences with us through surveys or interviews. Their willingness to share their experiences with the research team and provide the difficult details of their life, history, and experiences with health care, was inspirational.

Report Summary:
Brief Overview of the Key Findings and Recommendations

The commercial sexual exploitation (CSE) of minors in the United States is a pressing public safety and health issue.1 Yet, research on CSE victimization and health that is specific to young people has been limited by small and geographically specific samples. Using data from a larger and more geographically representative sample of young people experiencing or at high risk for CSE victimization supplemented with in-depth interviews with adult survivors who experienced CSE as minors, this study provides answers to five important questions:

01 What are the short- and long-term physical and psychological health concerns for minor who experience commercial sexual exploitation?

02 Which health risk behaviors are elevated among young people who experience commercial sexual exploitation victimization (e.g., sexual behaviors related to unintended pregnancy and sexually transmitted infections, including HIV infection, alcohol and other drug use, tobacco use, unhealthy dietary behaviors, inadequate physical activity, and behaviors that increase risk for injury and violence victimization)?

03 To what degree do psychological effects of commercial sexual exploitation impact short- and long-term physical health outcomes?

04 To what degree do minor survivors of commercial sexual exploitation access physical and psychological health services? What types of services do they access, and how and by whom is this access facilitated?

05 What are the barriers to meeting the health and wellness needs of young people who experience commercial sexual exploitation?

Two main sources of data were collected to understand the physical and psychological health concerns, health-accessing behavior, and challenges to meeting the healthcare needs of young people experiencing commercial sexual exploitation. Quantitative survey data from a large sample of 534 young people across the US between the ages of 13-24 who experienced commercial sexual exploitation or who are at high risk for experiencing **exploitation**, provide information about the health needs and conditions, **health care** utilization, and **health care** experiences for this population. Qualitative data gathered through in-depth, semi-structured **interviews**, of 35 adult survivors of commercial sexual exploitation when they were minors provided survivor narratives of their experiences seeking healthcare and meeting their healthcare needs across multiple stages of survivorship.

[1]Throughout this report, we use the broad term of commercial sexual exploitation (CSE) to refer to acts of sex trafficking, children and adolescents engaging in sex acts for money or something of value, sometimes as a means of survival, and child pornography. Limited research on young people who experience CSE victimization indicates that they face numerous psychological and physical health issues that complicate their recovery and access to medical and mental (Lorvinsky et al., 2023; Wallace et al., 2021).

Key Findings

Although all youth surveyed were referred to the study as a young person who experienced or was at high risk for experiencing CSE or who was screened as at high risk for CSE in the social media recruitment process, only 50% of the survey respondents directly self-reported CSE victimization on the survey. This is not unusual and is consistent with other studies that have surveyed youth who professionals have already flagged professionals as experiencing CSE or being at high risk for CSE victimization (see Rothman et al., 2019). Of those who self-reported, the age range of first reported experiences of CSE ranged from 7-23, with the majority reporting age 15 (21.4%)

01 Health Concerns:

Young people who experience CSE have numerous significant physical and psychological health problems either associated with their victimization or exacerbated by conditions of exploitation.

Overall, CSE survivors in our sample report more significant levels of negative health compared to non-exploited populations.

- **Self-reported health:** Roughly one - fourth of the sample (22%) indicated their physical health was not good for more than one week in the past month and half (50%) indicated their mental health was not good for more than one week in the past month.
- **Chronic physical health conditions:** Over half of the sample reported frequent or severe headaches (51%), and just over half reported frequent insomnia (47%). Of the serious health conditions measured, asthma was most common, experienced by one - fourth of the sample (25%). A smaller proportion of the sample reported having any STD (10%) or specifically HIV (2%).
- **Mental health conditions:** Most of the youth in this study reported experiencing adverse mental health conditions such as depression (61%) or anxiety (57%)
- **Sexual health**: Of those who reported having a sexually transmitted disease, 19% selfreported CSE, compared to 2.4% who did not self-report CSE

02 Health Risk Behaviors:

- **Adverse Childhood Experiences (ACEs):** A substantial percentage of participants reported experiencing ACEs. For example, 32% reported that a caregiver had been incarcerated, 73% reported experiencing emotional neglect, and 66% reported a caregiver had a mental illness. These rates are substantially higher than those reported in national samples of **youth** not specific to CSE. Within our sample, those youth who reported exploitation were more likely than those who did not report exploitation to indicate having experienced each ACE assessed.
- **Abuse in Dating and Intimate Relationships:** A larger percentage of participants reported that they had experienced abuse in their dating relationships, including verbal abuse (44.3%) and physical abuse (29.6%). The rates of abuse in dating and intimate relationships as elevated among participants who self-reported exploitation in the survey.
- **Substance Use:** Participants, especially those who reported exploitation, reported high rates of substance use, including alcohol, vaping, and cigarette use. Though a notable minority, some youth also reported the use of heroin, cocaine, and methamphetamines.

03 Interplay of Psychological Health and Physical Health for CSE Survivors:

For young people who experience CSE mental health (anxiety, depression, dissociation) significantly imediates the relationship between self-reporting CSE victimization and physical health outcomes. Poor mental health was associated with worse physical health across survey respondents. Addressing mental health needs is key to better physical health outcomes for CSE survivors.

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04 Healthcare Utilization:

Young people who experience CSE or who are at high risk of CSE victimization largely have connections to healthcare. Most survey respondents have insurance, and most feel they have some where they can rely on to meet their healthcare needs.

- **Health Insurance:** Access to health insurance was strongly associated with increased healthcare utilization (110% higher). Those with insurance, particularly those covered by parents' insurance, had better access to health services.

- **Crisis Care Service Utilization:** During situations of exploitation, however, youth relied on immediate or crisis-based healthcare services. Youth who self-reported experiencing CSE on the survey were significantly more likely to report visiting the ER in the last year (54%) compared to non-reporting youth (30%, $p < .001$). Similarly, youth who self8 reported CSE victimization had higher inpatient admission rates (29%) compared to nonself- report youth (9.0%, $p < .001$).

- **Predictors of Healthcare Utilization:** Young people who self-reported experiencing CSE on the survey were more likely to utilize healthcare than those who did not selfreport CSE (a 46% increase in healthcare utilization). Respondents who identified as LGBTQ had a 50% increase in healthcare utilization compared to non-LGBTQidentifying youth. Age and recruitment method were not significantly associated with healthcare utilization.

05 Barriers to Healthcare Access:

Although young people who experience CSE have significant health concerns, they report **a lack of trust in** healthcare professionals, an unwillingness to disclose exploitation, and belief that healthcare providers have not provided supportive care informed by their CSE experiences.

- **Discrimination Reported in Survey:** Within medical settings, 11% of participants reported feeling discriminated against due to their experiences with CSE

- **Discrimination Reported in Interviews:** Survivors frequently experience negative interactions with healthcare providers across all stages of survivorship, contributing to pervasive mistrust in the healthcare system. These challenges include dismissive or biased attitudes from providers, unmet healthcare needs, and stereotyping, often beginning prior to victimization and continuing through critical periods of exploitation.

- **Stigmatization:** During experiences of exploitation survivors commonly faced stigma related to sex work, substance use, cultural biases, and a lack of provider training on trauma, which discouraged them from seeking care even when their health needs were urgent (Wagner et al., 2024).

- **Building Trust after CSE:** Encouragingly, survivors in the study shared that postexploitation reengagement with the healthcare system was possible when they connected with empathetic, judgment-free providers. Such providers played a key role in rebuilding trust and addressing survivors' physical and mental health needs. This underscores the importance of trauma-informed, culturally sensitive approaches in healthcare to foster positive experiences and improve access for young people who experience CSE. By understanding the factors that facilitate trust and engagement, healthcare systems can better meet the complex needs of this vulnerable population.

Recommendations:

Recommendations to Improve Identification

- There is a significant need for medical professionals to receive training on CSE that is **trauma informed** and grounded in the experiences of survivors.
  - It is important that healthcare professionals better understand **that** ways the CSE may impact health and the common health concerns facing CSE survivors.
  - Healthcare providers must to understand the reasons why survivors do not easily disclose exploitation and work to build trust to ensure healthcare needs are met.
  - Understanding that people experiencing CSE may initially present with other more visible or recognizable identities, such as homelessness or substance use [9]disorder, may help practitioners better identify commercial sexual exploitation victimization in young people.
- Screening tools for health care providers are increasing, **but providers need to consider the implications of identification.** Are healthcare providers and systems prepared to support young people who have experienced CSE, once identified? If not, screening procedures without adequate responses can lead survivors to feel frustrated and decrease trust in medical professionals.
- Health providers should have resource lists that can be provided to individuals who are suspected to be victims of CSE, particularly referrals or information about services in facilities that specialize or are trained in exploitation and **trauma informed** care.
- Identification of CSE may be particularly important for clinics, reproductive health services, and emergency rooms, which are primary locations of care during exploitation identified by survivors of commercial sexual exploitation.

Recommendations to Better Meet Healthcare Needs

- The relationships that CSE survivors have with healthcare before, during, and after exploitation are critical to promoting or inhibiting their trust in healthcare professionals and willingness to disclose information about exploitation that might be critical to their care and to meeting their healthcare needs. As a result, pediatricians should be encouraged and rewarded for developing and modeling trusting, non-transactional relationships with young people to help set the foundation for future engagement with medical professionals.
- Healthcare navigators could be a significant addition to service provision for providers who serve young people experiencing CSE. Providers that have developed trusting relationships with survivors of CSE could utilize the support of healthcare navigators that help connect survivors with healthcare clinics or specific professionals who have strong knowledge and experience working with clients who have exploitation histories or comorbid substance use and exploitation histories. This could also include incorporating peer support programs in healthcare settings, where survivors with shared experiences can guide and support others navigating the system.
- CSE survivors need continuity of care, from initial interactions with emergency services to long-term management through community clinics and specialized trauma recovery programs. Too often, survivors have moments of healthcare stability that are interrupted by exploitation and other vulnerabilities. Anticipating the challenges of continuity of care and planning for disruption and re-engagement is critical for healthcare systems.
- CSE survivors should have access to online Online health resources and information (e.g., telehealth and app-based tools). Survivors may not present in ways that in-person providers can recognize and may instead seek information online in a more flexible environment where they have more control over their surroundings and experience.

Recommendation for Research

The findings of this study point to the need for more research in a few key areas:

Deeper investigation of day-to-day health and wellness. This study focuses on diagnoses and severe clinical problems (e.g, chronic pain, respiratory problems), but the findings from the study around self-rated health and the qualitative interview data support the need to understand more holistic approaches to health beyond clinical diagnoses.

Survivors' reproductive and sexual health, particularly during and after exploitation. Research should explore how changes in policies related to reproductive health (e.g., access to contraception or abortion) disproportionately affect CSE survivors and their ability to seek necessary healthcare.

Co-occurrence of substance use and exploitation to better understand how addiction complicates health outcomes and access to care. This research should include interventions aimed at reducing stigma and addressing the dual stigma of addiction and exploitation in healthcare settings.

How race, gender identity, sexual orientation, disability status, and socioeconomic factors intersect with other forms of exploitation experiences to affect health outcomes and access to care.

Effectiveness of trauma-informed training programs for healthcare providers in identifying and supporting CSE survivors. Research is needed to evaluate whether these specialized healthcare programs for CSE survivors lead to measurable improvements in survivors' healthcare engagement, experiences, and outcomes.

Introduction

The trafficking of minors for commercial sex is an urgent public safety and health issue in the United States. The terms minor sex trafficking and minor victims of commercial sexual exploitation (CSE) are often used interchangeably. The Victims of Trafficking and Violence Protection Act of 2000 (TVPA, 2000) recognizes that minors under the age of 18 who are engaging in commercial sex are victims of sex trafficking regardless of coercion, fraud, or force (TVPA, 2000, PL 106-386). The Justice for Victims of Trafficking Act (JVTA, 2015) further expands the definition of sex trafficking by including abuses traditionally captured under commercial sexual exploitation , including live or online sex shows, pornography, or sex tourism (JVTA, 2015, amending 18 USC 1591[a][1]). Throughout this report, we use the broad term of commercial sexual exploitation (CSE) to refer to acts of sex trafficking, children and adolescents engaging in sex acts for money or something of value, sometimes as a means of survival, and child pornography. Although the precise number of victims of child victims of CSE remains difficult to estimate, in 2023, the National Center for Exploited and Missing Children reported that 1 in 6 of the 28,800 children reported as missing from care were likely sex trafficking victims (NCMEC, 2023).

Over the last two decades, child - protecting agencies and systems have taken on increased responsibility for identifying and responding to child victims of CSE. The Preventing Sex Trafficking and Strengthening Families Act (2014) mandates state agencies to identify and provide services for children who are survivors of commerical sexual exploitation. However, challenges remain in coordinating multi-agency responses and addressing resource gaps, particularly in healthcare settings where CSE survivors are often present (Reid, 2018). Healthcare is a primary need of CSE survivors who suffer from both immediate and long-term adverse health effects of exploitation (Rajaram & Tidball, 2018). CSE is associated with numerous health consequences. Physical injuries such as broken bones, head trauma, burns, and genital injuries are common, with many survivors also experiencing urinary tract infections, genital pain, sexually transmitted infections, and complications like infertility and cervical cancer (Beyrer & Stachowiak, 2003; Shandro et al., 2016). For female survivors, pregnancy, unwanted pregnancy, miscarriage, abortion, and forced abortion are frequent outcomes (Lederer et al., 2023; Ravi et al., 2017). Additionally, CSE survivors often lack access to necessary healthcare during their exploitation, compounding existing health issues and hindering recovery (Greenbaum et al., 2023). Mental health is also profoundly impacted by CSE. Survivors often experience depression, which can include symptoms like sleep disturbances, feelings of worthlessness, fatigue, and difficulty concentrating (Hopper, 2017; Palines et al., 2020). Posttraumatic stress disorder (PTSD) is another common diagnosis, with symptoms such as nightmares, flashbacks, and hyperarousal (Cole et al., 2016; Hopper & Gonzalez, 2018).

Substance use and substance use disorders are also elevated in this population, particularly among minors (Frawley et al., 2023; Langton et al., 2022).

Recognizing the important role of healthcare providers in identifying and responding to CSE, healthcare providers have developed screening tools to improve the identification of CSE victimization across a range of settings, from emergency rooms to school clinics (Baldwin et al., 2011; Greenbaum et al., 2015). Despite these efforts, barriers to healthcare access remain a substantial challenge. Financial constraints, lack of insurance, and geographic or political factors are major barriers for many victims (Douthit et al., 2015; Kullgren et al., 2012). While the Affordable Care Act (ACA) expanded access to healthcare, critical gaps persist, particularly for those who are uninsured or underinsured. Survivors of sexual violence, including CSE, often experience stigma, shame, and fear of retribution, which further hinder their willingness to seek medical care (Beck et al., 2015; Garg et al., 2020). CSE survivors frequently report feelings of distrust towards healthcare providers, fearing they will not be understood or their needs will not be met (Price et al., 2021). Furthermore, the emotional vulnerability required to disclose victimization can be retraumatizing, making healthcare encounters particularly difficult.

Research on healthcare needs and healthcare access for young people who have experienced CSE is limited. Although researchers have documented multiple healthcare needs of CSE survivors, previous studies primarily focus on adult populations and are limited by small samples. The few studies examining healthcare access for minor victims of CSE highlight significant challenges young people face meeting their health care needs, though (Barnert et al., 2020; Lorvinsky et al., 2023; Wallace et al., 2021). While identification of and support for young people who have experienced CSE have improved in the past two decades, there remains a pressing need for comprehensive research and effective interventions that address both the immediate and longterm health consequences of CSE victimization for minors. Such research is critical to inform and enhance healthcare identification, improve responses to the complex health needs of survivors, and increase coordination across health and social service sectors serving young people who have experienced CSE victimization.

This study provides critical information regarding the health needs and healthcare access experiences of young people in the U.S. who experienced CSE victimization. Utilizing a sampling strategy informed by partnerships with specialized service providers who work with or specialize in responding to young people who experience or are at high risk of experiencing CSE, we recruited young people from around the county who have experienced CSE victimization or who are at high risk of such victimization to participate in an in-depth survey about their health care experiences. Surveys of youth were supplemented with in-depth interviews with a sample of adult survivors who experienced CSE victimization when they were minors to discuss health care needs and experiences across the multiple stages of survivorship. Below we outline the research questions and methodology that guided the study.

Research Questions

Five main questions guided this study. First, we sought to understand how often young people who experience CSE face short- and long-term physical and psychological health concerns. Second, we sought to understand the health risk behaviors that could be elevated among survivors of child and adolescent survivors of CSE (e.g., sexual behaviors related to unintended pregnancy and sexually transmitted infections, including HIV infection, alcohol, and other drug use, tobacco use, unhealthy dietary behaviors, inadequate physical activity, and behaviors that increase risk for injury and violence victimization). Third, we wanted to understand if the negative psychological effects of CSE impact short- and long-term physical health outcomes. Fourth, we sought information about the degree to which survivors of minor CSE survivors accessed physical and psychological health services, the types of services they accessed, and how healthcare access was facilitated or impeded. Finally, we sought to understand better the barriers young people who experience CSE victimization face in accessing healthcare. These questions and the contributions of answering each question are described in Table 1 below.

Table 1 Research Questions and Analytic Strategies

Research Questions	Analytic Strategies
1. What are the short- and long-term physical and psychological health concerns for minors who experienced CSE?	Frequencies of lifetime and past-year rates of physical and psychological health concerns/diagnoses, identifying differences by gender, race, age, sexual orientation, and socioeconomic categories among others.
2. Which health risk behaviors are elevated among minors who experienced CSE?	Rates of various health risk behaviors are calculated for the sample. Example of behaviors include alcohol and other drug use, tobacco use, unhealthy dietary behaviors, inadequate physical activity, and behaviors that increase risk for injury and violent victimization. These rates are compared to rates found in the general population of youth.
3. To what degree do psychological effects of CSE victimization impact short- and long-term physical health outcomes for young people?	Structural Equation Modeling (SEM) is used to evaluate the link between past victimization and severity of CSE history to negative health indicators and health risk behaviors. The analysis examines psychological distress and posttraumatic symptomatology are examine as potential mediators connecting victimization to negative health outcomes and health risk behaviors.
4. To what degree do young people who have experienced CSE access physical and psychological health services? What types of services do they access, and how and by whom is this access facilitated?	Rates of **health care** utilization are calculated, including the use of emergency/urgent care, primary care physicians, mental health services, hospitalizations, and other medical services. Regression analysis identifies demographic, victimization, and physical/psychological health conditions that are associated with use of different health services.
5. What are the barriers to meeting the health and wellness needs of people who have experienced CSE as a minor?	Qualitative data is analyzed to understand the types of health care needs and **health care** accessing experiences that people who experience CSE as a minor face at different stages of survivorship.

Methodology

Two main sources of data were collected to understand the physical and psychological health concerns, health accessing experiences, and challenges to meeting the healthcare needs of young people experiencing CSE. Quantitative data from surveys of young people between the ages of 13-24 who have experienced CSE, or are at high risk for experiencing CSE provider information about the health needs and conditions, **health care** utilization, and **health care** experiences of this population (research questions 1-4). Qualitative data gathered through in- depth, semi-structured interviews of 35 adult survivors who experienced CSE as a minor provided survivor narratives of their experiences seeking healthcare and meeting their healthcare needs across multiple stages of survivorship (research questions 1, 4, & 5). This mixed-methods approach facilitated a nuanced understanding of the complex short-term and long-term health needs and challenges faced by people who experienced CSE as a minor at different stages of survivorship. This project was approved by the Northeastern University IRB (IRB#2021-04-06) as well as the Human Subjects Protection Office at the National Institute of Justice.

Youth Survey

Study Design

A survey of young people who experienced, or were at risk of, CSE across the U.S. was conducted to better understand their health concerns, the types of **health care** services that this population utilizes, their experiences accessing **health care**, and the barriers to meeting their healthcare needs.

Survey Participants

A total of 534 young people participated in this research. Survey recruitment was achieved through two primary methods:

01 **Partnerships with Agencies that Support Young People Experiencing CSE**

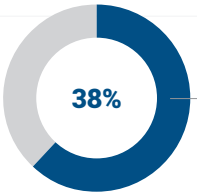
We collaborated with service and advocacy organizations that directly assist young people who have experienced or are at high risk of experiencing CSE. **These agencies with were from across the U.S., including but not limited to Massachusetts, Connecticut, Florida, Rhode Island, Texas, and Washington.** A total of 266 youth participants were recruited directly from partnering agencies.

02 **Social Media Advertisements**

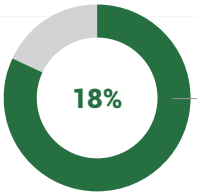
Because not all youth who experience CSE are connected to service providing agencies, we used the social media platforms Instagram and Facebook to survey young people across the U.S. who have experienced or are at high risk of experiencing CSE. Social media recruiting resulted in participants from 44 states across the U.S. A total of an additional 268 participants were recruited via social media advertisements.

Eligible participants for both the agency-recruited and social media-recruited surveys were youth aged 13 to 24 years who met the following criteria: (a) referred by a service provider study partner agency due to their involvement or high risk of involvement in exchanging sex for money or other valuables within the past five years in the U.S., or recruited through social media and screened for CSE experiences prior to taking the survey; (b) were under 18 years old at the time they exchanged sex for something of value; (c) currently aged between 13 and 24 years old; and (d) currently living in the US and capable of speaking, reading, and writing in English or Spanish. The survey was anonymous, and there was no anticipated long-term follow-up with participants. Respondents under the age of 18 assented to the survey, and those 18 or older provided consent. We received a waiver of parental consent for minor participants due to the potential risk to youth whose parents might not be aware of their commercial sexual exploitation. Survey recruitment materials and protocols are included in Appendix A.

Demographic information about the survey participants is included in Table 2. Table 2 reports the distribution of information across the recruitment approach (overall, agency recruited, and social media recruited).

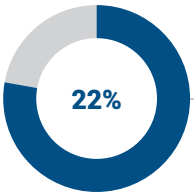


38% of the overall sample identified as white (17% for agency facilitated sample and 59% for the social media sample).

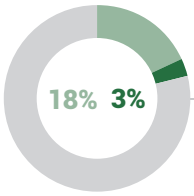


Overall, **18%** of the sample identified as Black (23% agency facilitated and 13% social media).

For analytic purposes, young people who indicated they were Latino and another racial category, were included with the Latino category. If multiple racial categories were selected, not including Latino, those participants were included in the multi racial/mixed race category.



Across samples, **22%** of respondents identified as Latina/o/e (24% agency facilitated and 9% social media).



Across the samples, **3%** of the respondents identified as Asian, and **18%** identified as multi-racial.

Gender Identity: Two-thirds of the respondents (67%) identified as female, 11% identified as male, 6% identified as transman, and 2% identified as transwomen. An additional 13% identified as genderqueer,

Sexual Orientation: Approximately 1/3 of the respondents identified as straight, 5% as gay, 7% as lesbian, 32% as bisexual, 15% as queer and 6% as questioning.

Racial Identity: Approximately 38% of the overall sample identified as white (17% for agency facilitated sample and 59% for the social media sample). Overall, 18% of the sample identified as Black (23% agency facilitated and 13% social media).

Ethnicity: If multiple racial categories were selected, not including Latino, those participants were included in the multi-racial/mixed-race category. Overall, 22% of respondents identified as Latina/o/e (24% agency facilitated and 9% social media), 3% of the respondents identified as Asian, and 18% identified as multi-racial.

Age Range: The average age of participants was 19 years old (SD 2.89), and they ranged from 13 to 24 years old.

Geographic Distribution: Participants resided in various U.S. regions:

Northeast: n = 197 (43.78%)
Midwest: n = 50 (11.11%)
South: n= 148 (32.89%)
West: n=55 (12.22%)

Table 2 Sample Participant Demographics

Demographics	All % (n)	Agency % (n)	Social Media % (n)
Race			
White	38.3 (204)	17.3 (46)	58.9 (158) ***
Black	17.6 (94)	22.6 (60)	12.6 (34) **
Latino/a/x	21.5 (115)	34.2 (91)	8.9 (24) ***
Asian	3.2 (17)	1.5 (4)	4.8 (13) *
Other	0.9 (6)	1.5 (4)	0.7 (2)
Mixed	18.4 (98)	22.9 (61)	13.8 (37) **
Gender			
Male	11.3 (60)	10.3 (28)	11.9 (32)
Female	67.8 (361)	75.6 (201)	59.7 (160) ***
Transman	5.8 (31)	1.5 (4)	10.1 (27) ***
Transwoman	1.9 (10)	2.3 (6)	1.5 (4)
Gender queer	13.1 (70)	9.8 (26)	16.4 (44) *
Sexual Orientation			
Straight	34.4 (180)	40.6 (108)	26.8 (72) ***
Gay	4.7 (25)	3 (8)	6.3 (17)
Lesbian	7.4 (39)	4.5 (12)	10.1 (27) *
Bisexual	32.4 (170)	32.7 (87)	30.9 (83)
Queer	15.3 (80)	9.4 (25)	20.5 (55) **
Questioning	5.7 (30)	6.3 (17)	4.8 (13)
Regions			
Northeast	43.78 (197)	60.90 (162)	13.06 (35) ***
South	32.89 (148)	18.80 (50)	36.57 (98) ***
Midwest	11.11 (50)	1.50 (4)	217.16 (46)
West	12.22 (55)	5.64 (15)	16.79 (45) ***

*p<.05. **p<.01. ***p<.001, comparing the column of interest to those in the “all participants” column

Survey Recruitment Procedure

Survey recruitment took place between April 1, 2022, and January 15, 2024. The two approaches used to recruit survey participants are described below in Appendix B.

- For agency-based recruitment, information about the study was disseminated through various channels, including flyers, business cards, text messages, and in-person communication by staff at partner organizations. Interested and eligible youths were encouraged to contact the research team for further details.

- For social media recruitment, that were placed on Instagram and Facebook using language approved by the research team and partners that described the survey in general health-related terms without containing sensitive information, in adherence to social media community guidelines. Participants who accessed the survey through social media recruitment channels first completed a screening questionnaire to determine their eligibility.

Both groups took the survey through the Qualtrics survey platform on a device (their own or a device provided by the partner agency). Before starting the survey, participants provided informed consent within the Qualtrics environment. The survey was anonymous, with no long- term follow-up planned.

Screening and Enrollment

All interested participants underwent a screening process via Qualtrics to assess eligibility. Protocols designed to mitigate potential survey fraud utilized in prior studies on domestic minor sex trafficking were employed to mitigate fraudulent responses (Bonett et al., 2024; Mitchell et al., 2021). The survey was available in English or Spanish and participants selected their preferred language to complete the survey.

All participants were provided with national help-line phone numbers, including the National Youth Crisis Hotline (1-800-662-HELP), the Substance Abuse and Mental Health Services Administration, and the Crisis Text Line (Rajaram & Tidball, 2018). Additionally, a protocol was in place to respond to participants who reported that they were distressed by the study, had concerns about suicidality, or experiences of maltreatment or neglect. Respondents who expressed such concerns at the end of the survey were asked if they would like a follow-up call from a clinician who contracted with the research team to assist them in connecting to appropriate services.

Survey Measures

The survey included various established measures, previously used, in other studies to measure health-related concepts. Utilizating established measures helped ensure high-quality data and robust psychometric properties. These instruments allow for comparisons with national samples regarding victimization rates, healthcare utilization, and health conditions/behaviors. Table 3 outlines the survey measures used, and the survey instrument is included in Appendix C.

Table 3 Survey Instruments

Instrument	Description / Psychometrics
Demographic measures	Participants self-reported information about their age, gender, sexual orientation, ethnicity, race, housing information, health insurance, and education
Commercial sexual exploitation of children (CSEC)	Self-Reported Commercial Sexual Exploitation of Children (CSEC). A five-item self-report measure was used to assess commercial sexual exploitation among minors. The measure has been used in prior surveys with CSEC survivors (Rothman sex or sexual acts for money, food, a place to stay, drugs, gifts, transportation or favors?" and "Have you ever been in videos or photos that are sexually explicit (i.e. pornography) for money, or because someone forced or coerced you to do it?" The endorsement of one or more items was classified as self- reported CSEC victimization. et al., 2019). Sample items include "Have you ever exchanged
Adverse Childhood Experiences (ACEs)	The 20-item version of the Adverse Childhood Experiences was used to capture harmful childhood experiences across a variety of domains, from victimization to familial and community adversities (Cronholm et al., 2015).
The Measure of Adolescent Relationship Harassment and Abuse – Clinical Screening Version (MARSHA-CSV)	Dating abuse victimization in the past year was assessed via the 7-item Measure of Adolescent Relationship Harassment and Abuse – Clinical Screening Version (MARSHA-CSV) (Rothman et al., 2022). Respondents answered six dating violence victimization questions. The endorsement of one or more items was classified as the presence of dating violence victimization in the past year
Cyber victimization	Cyber abuse was assessed using the NORC Cyberstalking survey through the Cyber-Abuse Research Initiative (CARI) (Mumford et al., 2023). Respondents were asked 22 statements regarding their experiences with technology, specifically if anyone (except parents or guardians) had done any of the items when they did not want to. The responses for items were dichotomous, yes or no.
Health-care access and utilization	To assess emergency and primary care service utilization while experiencing CSE, participants were asked questions about whether they had ever used any of the following healthcare services while exchanging sex or sexual acts/during the course of exploitation: an emergency room or urgent care facility, a doctor in a setting other than an emergency room or urgent care setting, were admitted to an inpatient unit for mental health or psychiatric reasons, participated in individual, group, or family therapy, or received a prescription from a psychiatrist or a doctor.
Trauma Symptom Checklist for Children (TSCC)	Participants were asked questions from the Anxious Arousal, Depression, and Dissociation subscales of the TSCC. The TSCC has strong reliability and validity with national norming samples across all instrument subscales (Briere, 2011)

Instrument	Description / Psychometrics
Posttraumatic Stress Disorder Checklist – 5 (PCL-5)	The 20-item PCL-5 was used to evaluate PTSD symptoms based on the DSM-5 diagnostic criteria. The PCL-5 has high reliability and support for convergent and discriminant validity (Blevins et al., 2015; Weathers et al., 2013)
Self-Reported Psychiatric Diagnosis	Participants were asked: "Have you ever been diagnosed by a doctor, therapist, or another professional with any of the following?" and prompted to respond yes or no for each: (1) Posttraumatic stress disorder (PTSD), (2) attention deficit disorder (ADD) or attention deficit hyperactivity disorder (ADHD), (3) oppositional defiance disorder or conduct disorder (ODD or CD), (4) autism or autism spectrum disorder, (5) intellectual disability, (6) learning disorders including dyslexia, reading, math, or other learning problems, (7) depression, (8) eating disorder, (9) bipolar disorder, (10) Schizophrenia or schizoaffective disorder, (11) anxiety disorder, or (12) substance use or alcohol use disorder. (Turner et al., 2016)
Self-reported Health	Physical and mental health in the past 30 days was assessed using items from the Behavioral Risk Factor Surveillance System (BRFSS) (CDC, 2013). Participants reported how often they experienced specific health outcomes (e.g., poor physical health, feeling depressed) in categories from 0 days to 15-29 days, which were dichotomized as less than one week versus more than one week. Additionally, self-rated physical health was reported on a Likert scale and dichotomized as poor/fair versus good/very good/excellent. Participants were also asked if any impairment limited their activities, with yes/no response options.
AUDIT-C and Illicit Drug Use Questionnaire	These are a 3- and 6-item questionnaires respectively that query alcohol and substance use in the past year. These measures have strong psychometric properties including sensitivity and specificity for screening for DSM substance use disorders (Bush et al., 1998)
Health-care discrimination	Experiences of healthcare discrimination were measured using a modified version of the validated Everyday Discrimination Scale (EDS) (Krieger et al., 2005; Peek et al., 2011; Sternthal et al., 2011). The EDS captures perceived discrimination across various settings and among participants with a range of clinical conditions (Peek et al., 2011). Our study utilized an adapted version of the EDS, specifically tailored to measure discrimination within healthcare environments, following the framework established by Peek et al. (2011). Participants in our study were asked to respond to six items on a five-point Likert-type scale, with options ranging from "never" to "always" to a series of items assessing how often they experienced specific discriminatory behaviors from healthcare providers.
PROMIS Emotional Support	The PROMIS Emotional Support item bank evaluates perceived emotional support, capturing feelings of being cared for and valued, as well as the presence of confiding relationships. Developed for children aged 8-17, the PROMIS Pediatric measures are patient-reported outcomes that assess a broad range of health domains, including emotional distress, physical function, and social relationships (Irwin, Stucky, Langer, et al., 2010; Irwin, Stucky, Thissen, et al., 2010). The PROMIS has strong psychometric support and demonstrated validity (Irwin et al., 2012; Irwin, Stucky, Langer, et al., 2010; Reeve et al., 2018). Participants were asked to report on a Likert scale whether they have: someone who understands their problems, someone who will listen to them, someone to talk to, someone around to help, can get helpful advice from others, get useful advice about important thing, and someone to talk with about school or work problems.

Qualitative Interviews

Study Design

In-depth semi-structured interviews were conducted with a purposeful sample of adults who had experienced CSE victimization as a minor. The interviews focused on participants' experiences with health and healthcare utilization at three distinct points in their lives: prior to exploitation, during exploitation, and after exploitation.

Participants

Qualitative interviews were conducted with 35 adults who experienced CSE victimization as a minor, representing a diverse range of ages, genders, sexual orientations, racial identities, and geographic locations across the United States. Participants were purposively recruited through programs serving survivors of commercial sexual exploitation that they were currently free from CSE victimization and no longer in a situation where they were experiencing CSE victimization. All participants were also in a place in their survivorship experience where they could provide comprehensive insights into their physical and psychological healthcare needs and experiences before, during, and following their CSE victimization experience.

- **Gender Identity:** The sample consisted of 28 cis-gender women, two trans-women, two non-binary individuals, one trans-man, and two cis-gender men.
- **Sexual Orientation:** Three participants identified as bisexual, two as questioning their sexual orientation, six as gay, and one preferred not to use any labels. The remaining 23 participants identified as straight.
- **Racial Identity:** The majority identified as White (51%), Black (17.1%), or Mixed (20%). The rest identified as Indigenous (6%) or Asian (3%), disclosingand some participants did not disclose their racial identity (3%).
- **Ethnicity:** 9% of the sample identified as Hispanic or Latinx.
- **Age Range:** Participants ranged from 18 to 60 years old.
- **Geographic Distribution:** Participants resided in various U.S. regions: 40% in the Northeast, 9% in the Southeast, 14% in the Midwest, 17% in the Southwest, and 20% in the West.

Recruitment Procedure

Qualitative interview participants were recruited through partnerships with service providers who provide services to adults (and sometimes youth and adults) who have experienced CSE victimization. Information about the study and opportunities to participate were distributed via the National Survivor Network listserve and the HEAL newsletter. Interested and eligible adults were directed to contact the research team for screening and interview scheduling. The research team did not receive information about any survivors or contact any potential participants who did not explicitly reach out to the research team with an interest in research participation. In this way, we ensured we did not have information about or from any individual who had not actively affirmed research interest. See Appendix D for recruitment material examples.

Data Collection

After prospective participants contacted the study team and all inclusion criteria were affirmed, each participant completed a demographic questionnaire. After the demographic form was completed, an interview time and date were scheduled at the convenience of the participant, and a confidential, HIPPA-compliant videoconferencing link was provided via a participant-provided email address.

The interview instrument was piloted with partner agency members and guided all qualitative interviews. Two research team members conducted interviews: a lead member of the research team with experience in trauma informed interviewing techniques and a second member of the research team who took detailed case notes and captured non-verbal cues. All interviewers had been part of the team that developed the interview instrument, and all interviewers were briefed on distress protocols to ensure interviewee comfort and safety during the interview process. Prior to beginning each interview, a brief description of the interview content and process was provided, and informed consent was obtained from all participants.

The semi-structured interview guide (see Appendix E) included general information on health and wellness and then asked participants to think about three stages in their lives: prior to exploitation, during exploitation, and after exploitation. Interviewees were asked to provide the approximate age ranges for each stage, which guided for questions and prompts to elicit age-appropriate details and glean depth of response. For example, for participants who indicated exploitation began prior to puberty, questions about sexual health may have been moved to the "during exploitation" portion of the interview. Consistently, participants were asked about the types of health concerns they experienced, the types of **health-care** they received (i.e., appointments, emergency room visits, prescriptions, tests, and vaccinations), and the nature and quality of their healthcare experiences across each stage of their life (i.e., before, during, and after exploitation victimization). In cases where participants had strong feelings about a medical interaction or indicated that they had several interactions with varied impacts, participants were asked to expand on one or two specific experiences and reflect in more detail about their engagement with healthcare providers and their feelings about the experience. Finally, participants were asked to provide information about things that would have enhanced their healthcare experiences and willingness to seek assistance with health concerns during each stage.

All recorded interviews were transcribed verbatim and checked for accuracy by a member of the research team. Any participant details (e.g., names, community agency names, or location information) were redacted in order to protect participant confidentiality and the protection of personal information. In all subsequent materials, participant identification codes were used to maintain anonymity as established in our human subjects protection materials. Interviews ranged in length from 30 to 90 minutes, with most lasting approximately one hour. In appreciation for their time, all interview participants were compensated with a $100 gift card.

Interviews were conducted with careful attention to participant well-being, and a clear distress protocol was in place to address any emotional discomfort during the process. All interview participants were asked to affirm that they were in a private and safe location prior to starting the interview. If a participant exhibited signs of distress before the interview, they were encouraged to reschedule the interview they were immediately provided with the contact information for our partnered mental health professional, who had specific expertise in assisting individuals in crisis and could help guide them to appropriate support services. If a participant experienced distress during the interview, the recording would be paused, and the interviewer would offer the participant contact information for our partnered mental health professional. The researcher would then ask the participants about their level of comfort in continuing the interview. If the participant felt comfortable continuing, the conversation would be redirected to a more neutral or positive topic. If the participant indicated they were uncomfortable continuing the interview at any point, the interview ended immediately. Upon interview completion, interviewees were asked if they were experiencing any negative emotions or discomfort that required follow-up support. In a small number of cases, interviewees asked for follow-up support and were connected with a clinician to ensure participant safety and supportive resources. This protocol was implemented to prioritize participants safety and emotional well-being throughout the interview process.

Validity and Reliability

Multiple strategies were employed o enhance the study's feasibility and rigor. Given the study's emphasis on understanding participants' lived experiences, semi-structured interviews were conducted using open-ended questions, allowing participants to articulate their experiences in their own words. Virtual interviews were used to enhance participant comfort, as well as ensure the feasibility of participation regardless of geographic location, thereby allowing participants to choose a comfortable location for their interview. This approach was purposively derived to promote participant comfort and candor in service of a sensitive exploration of survivors' experiences accessing and utilizing healthcare. In addition, the research team prioritized the interviewee's experiences and voice. All interview recordings were transcribed verbatim, checked for accuracy, and imported into QSR-NVivo14, a specialized qualitative data analysis software. Non-verbal cues and case notes were added to transcripts to ensure nuanced information on participant responses was captured holistically. This facilitated systematic coding, sorting, and analysis of the narrative text, while highlighting and prioritizing survivor voice and experience. Finally, the research team conducted team debriefing sessions following sets of interviews and prolonged engagement with the data. Researchers also maintained reflexive journals to document their perspectives and potential biases during the analysis, ensuring transparency and rigor in the findings.

The coding process took a grounded theory approach (Glaser & Strauss, 1967) where a framework for understanding was built directly from participant experiences rather than starting with a pre-existing theory. Using this approach, the research team leads initially read through three interviews and collaboratively developed an inductive coding structure based on participant narratives. The initial codes were grounded in the participant response, allowing for a flexible, data-driven approach. These codes were developed directly from the narratives rather than being imposed a priori, ensuring that they were closely aligned with the participant's own language and experiences. After the initial coding, the team met to discuss the organization of these codes and to refine them, adding new codes where necessary to ensure consistency in definitions across different coders. This collaborative meeting helped identify overlaps, clarify ambiguous terms, and standardize how codes would be applied.

Once the coding was solidified, a team coding training session was conducted, where the coding process was explained in detail to ensure all team members were aligned on the approach and the definitions of each code. Following the training, a larger group, approximately five team members, coded a second set of interviews, applying the refined codebook. This coding round allowed the team to test the robustness of the codes and make further adjustments to improve reliability and consistency. Afterward, the team met again to review and discuss any discrepancies or challenges encountered during coding, refining the process further as needed.

Through this iterative process, eight high-level codes were developed that related directly to questions about participant health concerns and experience seeking care across stages of survivorship. Each primary code had numerous sub-codes that delineated details of the coded text. See Appendix F for list of codes. A preliminary diagnostic analysis was conducted to assess the distribution of coding and sub-coding, which helped identify patterns and variations within the data. This analysis also highlighted areas where further clarification or additional codes were needed. The team then identified consistent themes across interviews, and parent codes were developed to represent these broader themes. These themes were central to understanding key aspects of the participants' experiences. The coded materials were systematically organized to capture the context and nuances of these emergent themes, ensuring that the team could explore the frequency of themes and their deeper meanings and variations. This structured approach to coding allowed for a comprehensive understanding of the data, ensuring that the analysis was both rigorous and reflective of the participants' lived experiences.

Table 4: Qualitative Interview Coding Scheme

Emergent Themes	Description
Type of Care	This code group captures the specific types or modes of healthcare that participants receive or seek. It includes various settings (e.g., emergency care, mental health, substance abuse, reproductive health) and reflects the diversity in healthcare needs, experiences, and services. Examples of relevant experiences include visiting clinics for sexual or reproductive care, using mental health services, or accessing emergency room care after experiencing trauma.
Participant's Expressions of Health-Related Topics	This section includes codes that focus on the participant's understanding and experiences related to different health aspects, from general health concepts to specific issues like mental health, substance use, reproductive care, and comorbid conditions. The codes here reflect how participants define and reflect on their health, the challenges they face, and the strategies they employ for self-care or health management. This category also includes discussions about pregnancy, medication, and other health concerns.
Experiences with Health-Care Providers	These codes capture participants' interactions with healthcare professionals and institutions, focusing on how healthcare providers understand and address the participant's needs. Topics like awareness of commercial sexual exploitation (CSE) by providers, recognition of CSE, trauma-informed care, provider characteristics, and involuntary treatment are included. This category also covers the practical aspects of healthcare, such as wait times and experiences with service provision.
Quality of Health Care	This section examines barriers and facilitators to accessing quality healthcare and maintaining health. Barriers to healthcare include logistical issues such as lack of transportation, discrimination, or inadequate care, while facilitators reflect positive experiences like trust and good service provision. This category also includes codes related to healthcare avoidance, confidentiality, and strategies participants use to navigate the healthcare system
Feelings and Emotions	This group focuses on the emotional experiences participants have regarding their healthcare and personal well-being. It includes feelings of dehumanization, discrimination, stigma, shame, discomfort, fear, and pride in health. It also encompasses participants' ongoing emotional struggles or processing (e.g., still working through past trauma).
People and Relationships	Here, participants reflect on relationships with various people in their lives, including family, healthcare professionals, and others who influence their healthcare experiences. Codes include mentions of parents, siblings, children, healthcare providers, and others who play significant roles in supporting or hindering access to care.
Community and Connections	This category captures experiences related to community support and connections, including the role of faith-based organizations in healthcare, community needs, and the broader social environment that participants navigate. It also considers the availability of resources and support systems in their local communities.
Other	This section includes miscellaneous factors affecting healthcare access and well-being, such as self-reporting of CSE experiences, trauma, spiritual health, community needs, and financial concerns. It also addresses practical issues like transportation, insurance, housing, and involvement with law enforcement or community organizations. These codes reflect broader factors influencing health beyond the direct healthcare system.

Once the coding process was complete, the team transitioned into the analysis phase, wherein we synthesized the coded data to identify key patterns and themes. This stage involved memo writing, a crucial step during which researchers document their thoughts, interpretations, and insights about the data. Memos served as a reflective tool, helping the team refine our understanding of the emerging themes and guiding the next steps in analysis.

We also employed a negative case analysis to refine our interpretations. This involved systematically searching for and examining instances in the data that did not align with the identified themes or that contradicted the dominant patterns. By considering these "negative cases," we were able to identify and challenge divergent experiences, ensuring that our conclusions were not overly simplistic or biased toward confirming preconceived ideas. For example, while most participants reported experiencing significant barriers to healthcare during the period of exploitation, a few individuals shared that they had access to medical care, albeit with mixed quality. These outlier cases allowed us to explore the complexities of healthcare access during period when young people experience CSE, prompting us to reconsider assumptions about universal barriers to refine our analysis by acknowledging the variability in individual experiences. This process helped to strengthen our conclusions and ensure a more nuanced understanding of the survivor experience.

The team then compared coded data across different interviews, looking for similarities and differences in how themes manifested. This comparative analysis allowed us to better understand the nuances of the data and how the themes varied across different participants. It also helped to highlight any outliers or deviations in the data, which could reveal important aspects of the participants' experiences that had not been fully captured in the initial coding process.

This combination of memo writing, negative case analysis, and comparison ensured a thorough and balanced analysis, allowing us to deepen our understanding of the data and strengthen the reliability of our findings. For this summary report, we present an analysis focused on the main barriers participants faced across their lifetimes, drawing on themes identified during the memo-writing process. Specifically, we highlighted how the needs and experiences of survivors evolved across different life stages—before, during, and after exploitation.

Research Question 1: What are the short- and long-term physical and psychological health concerns for young people who experience commercial sexual exploitation?

Summary Findings

- **Self-reported health:** Roughly one-fourth of the sample (22%) indicated their physical health was not good for more than one week in the past month and half (50%) indicated their mental health was not good for more than one week in the past month.
- **Chronic physical health conditions:** Over half of the sample reported frequent or severe headaches (51%), and just over half of the sample reported frequent insomnia (47%). Of the serious health conditions measured, asthma was most common, experienced by one-fourth of the sample (25%). A smaller proportion of the sample reported having any STD (10%) or specifically HIV (2%).
- **Mental health conditions:** Most of the youth in this study reported experiencing adverse mental health conditions such as depression (61%) or anxiety (57%)
- **Sexual health:** Of those who reported having a sexually transmitted disease, 19% selfreported CSE, compared to 2.4% who did not self-report CSE

In this study, we aimed to capture information on the physical and psychological health outcomes of young people who experience exploitation. This analysis focuses on both immediate and long-term impacts on the well-being of these youth, highlighting how their physical health (including sleep hygiene, chronic pain, allergies, etc.) and mental health (PTSD, trauma, and general disorders) are affected. We also examined the differences in these health outcomes across key demographics. It is critical to understand the overall health and well-being of this population, as well as differences across various characteristics, as they can reveal how certain groups may be more vulnerable or have different health needs for intervention and care. By exploring these health markers, this study demonstrates the spectrum of conditions, diagnoses, and general health needs faced by survivors of commercial sexual exploitation.

Analytic Strategy Spotlight

To explore the short- and long-term physical and psychological health concerns for CSE survivors, frequencies were calculated for the lifetime and past-year rates of physical and psychological health concerns and diagnoses among CSE survivors. These analyses provide a broad understanding of these survivors' health issues at various stages. Self-rated health was analyzed using past 30-day assessments, providing insights into participant health perceptions. Questions also addressed diagnosed physical health conditions and perceived physical health conditions. Psychological conditions such as posttraumatic stress (PCL) and trauma symptoms (TSCC) were evaluated, along with any issues related to survivor isolation, as potential factors affecting overall health. T-tests were conducted to compare health concerns across different demographic groups, including variables such as size, race, gender (including transgender and gender non-conforming youth), sexual orientation, and socioeconomic status. These tests help assess whether health concerns differ significantly based on survivor characteristics. For further statistical robustness, a goodness-of-fit chi-square test was used to examine if the observed distribution of health concerns aligns with the expected frequencies in different demographic subgroups.

Self-Rated Health

As described previously, the design of this survey included measures for self-rated health and healthcare utilization. We also asked participants in the qualitative interviews to describe their health concerns and their access to healthcare across their lifespan. Table 5 shows how participants in the survey responded about their overall health.

As illustrated in Table 6, young people described their health as being good overall (73%, n=369), yet when asked to describe their physical and mental health specifically, respondents' mental health was typically worse than their self-reported physical health.

- Across samples, 22% of respondents indicated their physical health was not good for more than one week in the past month, and 50% indicated their mental health was not good for more than one week in the past month.
- About half of the survey sample reported feeling worried or anxious for more than one week (53%), and just under half of the respondents said they were sad or blue more than one week a month (47%).
- Approximately a third of respondents reported that their health limited their capacity to engage in activities more than a week in a month (32%, n=163) or were limited due to impairment (30%, n=152).
- Over half of the survey participants reported not getting enough sleep more than a week in a month (53%, n=271), and most got less than 7 hours a night (73%, n=369).

Across demographic information, we find that self-rated health differs among the spectrum of identities and characteristics of the youth in the survey. Among key characteristics, we found the following differences.

- When examining race, white youth showed significantly worse overall general health ($p < .01$), as well as physical health ($p < .001$), and mental health ($p < .05$) compared to non- white youth.
- By sexual orientation, LGB youth demonstrated significantly worse overall general health ($p < .05$) and had significantly higher differences in physical ($p < .001$) and mental health ($p <.001$) when compared to straight youth.
- Examining the role of immigration, being born in the US, those born in the US had significantly worse overall general health ($p < .05$), mental health ($p < .001$), and physical health ($p < .01$).
- When looking at the level of activities, we find that white youth had more self-reported impact on their daily activities due to their health than non-white youth ($p < .05$), as did LGB youth ($p < .001$) compared to straight youth, and US-born ($p < 0.001$) compared to immigrant youth.

More Insight: Self-reported CSE respondents report worse health than those respondents who do not report-CSE victimization directly on the survey

As illustrated in Table 6, across recruitment strategies, there were often statistically significant differences between the self-reported health of those who were recruited by agencies and those recruited via social media. On average, those recruited via social media reported better health than those involved in agencies. This may reflect a difference in the populations of youth who seek formal support from service provider agencies and those who do not.

As noted in the measures section, we asked respondents to self-report experiences of commercial sexual exploitation. Those respondents who self-reported exploitation, on average, reported worse self-rated health compared to those who did not report exploitation on the survey. Below, we highlight significant differences between the youth who reported CSE victimization on the survey and the youth who did not.

General Health:
Respondents who reported CSE victimization tend to report poorer general health compared to non-reporting respondents, with a notable significant difference when health is rated from social media ($p < 0.001$).

Physical and Mental Health:
Respondents who reported CSE victimization report more days of poor physical and mental health than their non-self-reported counterparts, with significant differences in the duration of poor health episodes, especially when the responses came from the social media recruitment.

Impact on Daily Activities:
Respondents who self-reported exploitation are significantly more likely to report being kept from usual activities due to health issues.

Emotional Well-Being:
There are consistently significant differences in the emotional wellbeing of respondents who self-reported exploitation. This group reports more prolonged periods of feeling worried, tense, anxious, sad, or depressed compared to the group that did not selfreport exploitation.

Sleep Patterns:
Respondents who report CSE have more frequent issues with rest and sleep, affecting their overall health and daily functioning.

Table 6 Self-Rated Health in the Last 30 Days

Self-Rated Health	All % (n)	Agency % (n)	Social Media % (n)	Self-Reported CSE % (n)	No CSE Self-Report % (n)
General overall health					
Poor health	26.9 (136)	21.1 (54)	32.9 (82)	31.1 (79)	22.7 (57)
Good health	73.1 (369)	78.9 (202)	67.1 (167) **	68.9 (175)	77.3 (194) *
Days physical health was not good					
Less than one week	77.5 (390)	83.1 (212)	71.8 (178)	73.1 (185)	82.0 (205)
More than one week	22.5 (113)	16.9 (43)	28.2 (70) * *	26.9 (68)	18.0 (45) *
Days mental health was not good					
Less than one wee	49.5 (250)	57.9 (149)	40.7 (101)	46.3 (117)	52.8 (133)
More than one week	50.5 (255)	42.0 (108)	59.3 (147) ***	53.8 (136)	47.2 (119)
Days you felt worried, tense, or anxious					
Less than one week	46.9 (236)	57.1 (145)	36.6 (91)	43.8 (110)	50.0 (126)
More than one week	53.1 (267)	42.9 (109)	63.5 (158) ***	56.2 (141)	50.0 (126)
Days you felt sad, blue or depressed					
Less than one week	52.4 (264)	56.5 (144)	48.2 (120)	46.0 (116)	46.0 (116)
More than one week	47.6 (240)	43.5(111)	51.8 (129)	54.0 (136)	41.3 (104) **
Days health kept you from usual activities					
Less than one week	67.7 (342)	74.6 (191)	60.6 (151)	61.3 (155)	74.2 (187)
More than one week	32.3 (163)	25.4 (65)	39.4 (98) **	38.7 (98)	25.8 (65) **
Limited in activity because of impairment					
No	69.7 (349)	81.0 (205)	58.1 (144)	68.0 (170)	71.3 (179)
Yes	30.3 (152)	18.9 (48)	41.9 (104) ***	32.0 (80)	28.7 (72)
Days you did not get enough rest or sleep					
Less than one week	46.2 (233)	55.7 (142)	-36.6 (91)	44.8 (113)	47.6 (120)
More than one week	53.8 (271)	44.3 (113)	63.5 (158) ***	55.2 (139)	52.4 (132)
Hours of sleep per night					
Less than 8 hours	73.4 (369)	24.4 (62)	28.9 (72)	76.5 (192)	70.2 (177)
8 or more hours	26.6 (134)	75.6 (192)	71.1 (177)	23.5 (59)	29.8 (75)

*p<.05. **p<.01. ***p<.001, comparing the column of interest to those in the "all participants" column

Health Concerns: Overall

The survey also captured information regarding rates of physical and psychological health concerns and diagnoses among participants. Notably, the most common chronic physical ailment reported being frequent or severe headaches (51%, n=258), while the most common health condition was reported to be insomnia (47%, n=239). Of the serious health conditions measured, asthma was most common within the sample (25%, n=128). A smaller proportion of the sample reported having any STD (10%, n=55) or HIV (2%, n=11). Table 7 provides details regarding respondent reports of chronic pain or other physical health conditions.

Health Condition Highlights

Chronic Pain

- **Chronic Back or Neck Issues:** Among all participants, 35% reported chronic back or neck pain, with a slightly higher rate in the youth who self-reported exploitation on the survey (38%) compared to non-reported respondents (32%).
- **Frequent or Severe Headaches:** Among all participants, 51% confirmed. Over half of the youth who self-reported exploitation (56%) reported frequent or severe headaches, a notable increase compared to the non-self-reported cases (46%).
- **Other Chronic Pain:** Chronic pain not related to the back, neck, or headaches was more prevalent in the youth who self-reported exploitation (30%) than in non-self-reported cases (23%).
- Respondents who self-reported experiencing CSE on the survey reported significantly higher rates of chronic pain and certain conditions (e.g., other chronic pain, seasonal allergies, insomnia) compared to those respondents who did not self-report CSE. This is especially evident in agency-reported data, where CSE individuals have higher rates of chronic pain ($p < 0.001$), seasonal allergies ($p < 0.01$), insomnia ($p < 0.01$), and COVID- 19 ($p < 0.05$). Similarly, in social media-reported data, CSE individuals showed higher rates of ulcers ($p < 0.05$) and other sexually transmitted diseases ($p < 0.001$).

Common Health Conditions

- **Seasonal Allergies:** Seasonal allergies were common across both groups, affecting around 47% of the youth who reported exploitation and 43% of non-reported responses.
- **Insomnia:** Insomnia was significantly more prevalent among survey participants, with 53% of those who self-reported CSE experiencing insomnia compared to 42% in the self-reported group.
- **COVID-19:** A slightly higher percentage of non-self-reported participants (42%) reported having had COVID-19 than those in the youth who self-reported exploitation (36%).

Serious Health Conditions

- **Heart Disease and High Blood Pressure:** While heart disease was rare, high blood pressure was more common in the youth who self-reported exploitation (13%) than in non-self-reported cases (6%).
- **Asthma:** Asthma was reported by about 27% of the youth who self-reported exploitation, higher than in non-self-reported participants (24%).
- **Lung Disease:** Lung disease rates were low but higher in the youth who self-reported exploitation (5%) compared to non-self-reported cases (2%). The prevalence of lung disease and asthma was generally higher among CSE individuals, with lung disease showing significant differences in agency data ($p < 0.05$)

Infectious and Sexually Transmitted Diseases (STDs)

- **HIV/AIDS:** The prevalence of HIV or AIDS was low overall, with a slight increase in the Youth who reported exploitation (3%) versus those who did not self-report exploitation on the survey (2%).
- **Other STDs:** Notably, 19% of CSE participants reported an STD other than HIV/AIDS, which is significantly higher than the 2.4% in the non-self-reported group.
- CSE individuals reported significantly higher rates of other sexually transmitted diseases. This difference was highly significant in agency data ($p < 0.001$) and social media data ($p < 0.001$).

Table 7 Diagnosed Health Conditions

Reported Health Conditions	All % (n)	Agency % (n)	Social Media % (n)	Reported CSE in Survey % (n)	No CSE Self-Report % (n)
Headaches	51.3 (258)	53.2 (135)	49.4 (123)	56.4 (142)	46.2 (116) *
Insomnia	47.6 (239)	46.1 (117)	19.2 (122)	53.4 (134)	41.8 (105) **
Allergies	44.8 (225)	38.7 (98)	51.0 (127) ***	47.1 (118)	42.6 (107)
Covid	39.1 (197)	27.5 (70)	51.0 (127) ***	35.9 (91)	42.2 (106)
Back or Neck Pain	35.1 (176)	30.9 (79)	39.3 (97)	37.9 (95)	32.3 (81)
Chronic Pain	26.2 (132)	18.9 (48)	33.7 (84) ***	29.8 (75)	22.7 (57)
Asthma	25.4 (128)	28.1 (72)	22.6 (56)	27.3 (69)	23.5 (59)
STDs	10.9 (55)	15.7 (40)	6.0 (15) ***	19.44 (49)	2.38 (6) ***
High Blood Pressure	9.5 (48)	11.3 (29)	7.6 (19)	12.7 (32)	6.4 (16) **
Ulcers	7.5 (38)	9.4 (24)	5.6 (14)	11.9 (30)	3.1 (8) ***
Diabetes	6.2 (31)	6.3 (16)	6.1 (15)	7.9 (20)	4.4 (11)
Lung Disease	3.2 (16)	3.5 (9)	2.8 (7)	4.7 (12)	1.6 (4) *
Heart Disease	2.9 (15)	2.4 (6)	3.6 (9)	3.2 (8)	2.8 (7)
HIV	2.2 (11)	2.8 (7)	1.6 (4)	2.8 (7)	1.6 (4)
Tuberculosis	1.2 (6)	0.4 (1)	2.0 (5)	0.8 (2)	1.6 (4)

*p<.05. **p<.01. ***p<.001, comparing the column of interest to those in the "all participants" column

More Insight: Health Needs Identified in Adult Survivor Interviews

In addition to the quantitative analysis, qualitative data from interviews provided deeper insights into the complex physical and psychological health concerns experienced by young people who experience commercial sexual exploitation. The qualitative findings shed light on the lived experiences of survivors before, during, and after exploitation, offering a more nuanced understanding of how these health concerns manifest and evolve over time. By exploring survivors' narratives, we can better understand the mental and physical health challenges they encountered and how their needs changed throughout stages of their survivorship. These insights below complement the statistical findings, adding context and depth to our understanding of the health concerns experienced by CSE survivors.

Before Exploitation:

Many survivors described growing up with unaddressed mental health concerns, often due to the stigma surrounding mental health-care in their families or communities. One participant explained how her struggles with mental health, manifested in behaviors such as bedwetting, were overlooked and misinterpreted by her family as laziness rather than signs of trauma. She reflected,

> I really needed help… I really needed some therapy, and I needed some trauma help and stuff like that. And it just wasn't… We didn't have that
>
> (Interview #10).

This highlights the lack of access to mental health-care and the long-term consequences of untreated psychological distress from childhood. Interviewees also described situations where parents communicated family values of keeping issues within the family and expressing stigma towards mental health, which kept participants from raising issues with medical providers or accessing care.

During Exploitation:

During exploitation, survivors reported severe physical and psychological health issues, often arising from violence, neglect, and lack of adequate care.

One survivor shared,

> Most of my trips during trafficking to get treatment were emergency-based... I was on life support in the ICU for a serious infection in my leg called cellulitis,
>
> (Interview #29).

Another survivor described being rushed to the hospital after a trafficker beat her, leaving her with a brain injury and swollen eyes. Other than occasional emergency care, survivors also accessed reproductive healthcare, an exception to the otherwise limited preventive care experienced during exploitation.

After Exploitation:

Survivors' experiences after exploitation also revealed significant struggles with both physical and mental health, but survivors were more engaged with healthcare during this stage. One participant described how having a therapist and a supportive gynecologist helped her regain a sense of control over her health:

> I definitely just think like having a therapist and a gynecologist who didn't make me feel like bad for my experience made it easier for me to feel more like in control to take care of myself,
>
> (Interview #3).

Another survivor faced not only physical health challenges but an emotional toll from not having her health needs previously met. After much persistence and advice from peers, she sought treatment in a larger city, where she was finally met with understanding and support.

> She was over the top, nice, understanding... We set up the surgery within like 30 days, and I was able to resume back to normal life
>
> (Interview #5).

This individual still suffers from the consequences of her exploitation experience and lack of treatment for hepatitis C, demonstrating how many survivors have lingering physical and mental needs that need to be addressed long after their exploitation ends.

Psychiatric Conditions

With the measure of psychiatric conditions derived from the National Survey of Children's Exposure to Violence III (NatSCEV III), we find that in total, 73% of the sample reported having any diagnosed disorder (n=395), and 61% reported having two or more diagnosed disorders (n=327). Across conditions, the most common diagnoses were

Depression (61%, n=309)

Anxiety disorder (57%, n=286)

PTSD (37%, n=190)

ADHD (31%, n=157)

While these findings report on confirmed diagnoses across categories, there were a range of young people who were not formally diagnosed but suspected they have the disorder. For example, 14% (n=71%) of survey respondents indicated they thought they had PTSD even though it had not been diagnosed, 15% (n=73) thought they had ADHD, 17% (n=86) thought they had autism, and 16% (n=83) thought they had eating disorders despite no diagnosis. Our survey did not capture the chronological ordering of sexual exploitation in relation to the suspected or confirmed diagnosed disorders among respondents, therefore, we cannot report on how many respondents' disorders originated before or after their exploitation experiences.

Table 8 Diagnosed and Suspected Psychological Conditions

Diagnosed Psych Conditions % (n)	All % (n)	Agency % (n)	Social Media % (n)	Self-Reported CSE % (n)	No Self-Reported CSE % (n)
Depression	61.80 (309)	65.08. (164)	58.47 (145) **	73.20 (183)	50.40 (126) ***
not diagnosed but suspected	11.00 (55)	6.35 (16)	15.73 (39)	8.80 (22)	13.20 (33)
Anxiety Disorder	57.20 (286)	55.12 (140)	59.35 (146) **	62.55 (157)	51.81 (129)
not diagnosed but suspected	10.80 (54)	7.09 (18)	14.63 (36)	8.76 (22)	12.85 (32)
PTSD	37.77 (190)	50.4 (128)	24.9 (62) ***	55.4 (139)	20.2 (51) ***
not diagnosed but suspected	14.12 (71)	9.84 (25)	18.47 (46)	14.34 (36)	13.89 (35)
ADHD	31.21 (157)	33.7 (86)	28.5 (71)	36.3 (91)	26.2 (66) *
not diagnosed but suspected	14.51 (73)	9.45 (24)	19.68 (49)	13.15 (33)	15.87 (40)
Bipolar Disorder	17.96 (90)	25.79 (65)	10.04 (25) ***	25.20 (63)	10.76 (27) ***
not diagnosed but suspected	6.99 (35)	7.14 (18)	6.83 (17)	6.80 (17)	7.17 (18)
Eating Disorder	17.50 (88)	16.54 (42)	18.47 (46) ***	23.51 (59)	11.51 (29) **
not diagnosed but suspected	16.50 (83)	9.84 (25)	23.29 (58)	15.94 (40)	17.06 (43)
Learning Disorder	14.74 (74)	17.79 (45)	11.65 (29) **	19.92 (50)	9.56 (24) **
not diagnosed but suspected	7.77 (39)	7.91 (20)	7.63 (19)	8.37 (21)	7.17 (18)
Substance Use	13.57 (68)	22.22 (56)	4.82 (12) ***	24.10 (60)	3.17 (8) ***

Diagnosed Psych Conditions % (n)	All % (n)	Agency % (n)	Social Media % (n)	Self-Reported CSE % (n)	No Self-Reported CSE % (n)
not diagnosed but suspected	3.99 (20)	3.57 (9)	4.42 (11)	6.02 (15)	1.98 (5)
Autism	9.98 (50)	4.8 (12)	15.3 (38) ***	9.9 (25)	10.0 (25)
not diagnosed but suspected	17.17 (86)	5.56 (14)	28.92 (72)	15.14 (38)	19.20 (48)
ODD	8.96 (45)	11.1 (28)	6.8 (17) *	11.6 (29)	6.4 (16) *
not diagnosed but suspected	6.18 (31)	5.93 (15)	6.43 (16)	7.60 (19)	4.76 (12)
Schizophrenia	3.79 (19)	3.95 (10)	3.63 (9)	6.00 (15)	1.59 (4) ***
not diagnosed but suspected	4.79 (24)	5.53 (14)	4.03 (10)	6.80 (17)	2.79 (7)
Intellectual Disability	3.59 (18)	5.1 (13)	2.0 (5)	6.4 (16)	0.80 (2) **
not diagnosed but suspected	1.59 (8)	1.58 (4)	1.61 (4)	1.20 (3)	1.99 (5)

*p<.05. **p<.01. ***p<.001, comparing the column of interest to those in the "all participants" column

PTSD

We utilized the PTSD Checklist (PCL) to better capture information regarding the rate of post-traumatic symptoms experienced by young people who are victims of CSE. Across the sample, 58% (n=276) of respondents could receive a provisional PTSD diagnosis based on their score across the measure. When looking at the relationship between having a provisional PTSD diagnosis, our sample demonstrates a significant association between having a high PCL score and self-reporting CSE experiences on the survey ($\chi 2=51.34$, $p < .001$). This is unsurprising, given the fact that highly traumatizing situations are associated in general with youth experiencing harm, including those who experience CSE.

Table 9 PCL – A Provisional PTSD Diagnosis

Clinically PTSD	All % (n)	Agency % (n)	Social Media % (n)	No CSE Self-Reported % (n)	CSE Self-Reported % (n)
PTSD	58(276)	62(148)	54(128)	74(176)	42(100)
No symptoms for PTSD	42(200)	38(91)	46(109)	26(61)	58(139) ***

*p<.05. **p<.01. ***p<.001, comparing the column of interest to those in the "all participants" column

Trauma Symptom Checklist for Children

As a highly traumatized population, we sought to capture how trauma impacted the youth surveyed in this study. To do so, we utilized the Trauma Symptom Checklist for Children (TSCC), with specific emphasis on the anxiety, depression, and dissociation subscales. When looking at the bivariate relationships between the domains of the TSCC and its significance with self-reporting CSE, we found that experiencing anxiety was significantly associated with exploitation ($\chi 2=87.89$, $p < .001$), as was depression ($\chi 2= 67.14$, $p < .001$) but dissociation was not. Overall, there seems to be an indication of worse mental health for those who explicitly self- report experiencing CSE.

Table 10 TSCC – Anxiety, Depression, and Dissociation

TSCC T-score Mean (SD)	All Mean (SD)	Agency Mean (SD)	Social Media Mean (SD)	CSE Self-Reported Mean (SD)	No CSE Self-Reported Mean (SD)
Anxiety	56.37 (12.12)	55.3 (11.24)	57.45 (12.88)	59.74 (11.74)	53.03 (11.75) ***
Depression	56.25 (11.79)	55.53 (11.07)	56.98 (12.47)	59.16 (11.86)	53.36 (11.01) ***
Dissociation	55.87 (11.93)	55.43 (11.33)	56.32 (12.52)	58.18 (11.84)	53.57 (11.60) ***

*p<.05. **p<.01. ***p<.001, comparing the column of interest to those in the "all participants" column

Research Question 2: Which health risk behaviors and health- related experiences are elevated among young people who experience commercial sexual exploitation?

Summary Findings

- **Adverse Childhood Experiences (ACEs):** A substantial percentage of participants reported experiencing ACEs. For example, 32% reported that a caregiver had been incarcerated, 73% reported experiencing emotional neglect, and 66% reported a caregiver had a mental illness. These rates are substantially higher than those reported in national samples of youth, not specific to CSE. Within our sample, those youth who reported exploitation were more likely than those who did not report exploitation to indicate having experienced each ACE assessed.
- **Abuse in Dating and Intimate Relationships:** A larger percentage of participants reported that they had experienced abuse in their dating relationships, including verbal abuse (44.3%) and physical abuse (29.6%). The rates of abuse in dating and intimate relationships were elevated among participants who self-reported exploitation in the survey.
- **Substance Use:** Participants, especially those who reported exploitation, reported high rates of substance use, including alcohol, vaping, and cigarette use. Though a notable minority, some youth also reported the use of heroin, cocaine, and methamphetamines.

Our study emphasizes the importance of understanding how commercial sexual exploitation victimization affects health-related behaviors and how certain health-related experiences may influence risk for exploitation. Understanding these relationships can be useful in mitigating harm among at-risk populations. From our analysis, we saw that survivors reported elevated rates of ACEs as compared to the general population, giving insights into their experience with trauma at a young age and the need for early trauma-informed care. We also noted the increased prevalence of dating abuse (i.e., intimate partner violence victimization) among participants who self-reported exploitation and were recruited through agencies. Additionally, there was also insight into mental and physical health issues experienced by our participants, their sexual health concerns, and substance use patterns. By investigating these factors, researchers and healthcare providers can develop more effective strategies that will improve survivors' health outcomes, as well as prevent victimization experiences.

Analytic Strategy Spotlight

This question was focused on identifying health-related risk behaviors and health-related experiences, s, including adverse childhood experiences (ACEs), dating abuse victimization, and alcohol and drug use. These behaviors were compared against rates found in the general youth population where possible. For continuous health behaviors (e.g., frequency of alcohol or drug use), T-tests were used to test for significant differences in mean values between survivors and the general youth population. Before performing these analyses, multicollinearity was checked by calculating VIFs, ensuring that predictors are not highly correlated, as this could distort the regression results. This analysis also considers additional factors, such as dating abuse and adverse childhood experiences (ACEs), which may influence vulnerability to exploitation.

ACES & Adolescent Relationship Harassment and Abuse

The survey results highlight several health-related experiences that appear to be more prevalent among young people who experience commercial sexual exploitation as compared to youth in general. The data revealed that adverse childhood experiences (ACEs) were prevalent among our sample and that they were more likely to have experienced each individual ACE that we assessed as compared to those in other research samples.

For example, in a national sample of high school-attending U.S. youth who responded to the Youth Risk Behavior Survey, 15% reported that a parent had ever been incarcerated, while 32% of our sample reported the same (Swedo et al., 2024). Similarly, in a national sample, 28% of adolescent youth reported that a caregiver had mental health problems, but 66% of our sample reported that experience (Swedo et al., 2024). The rate of verbal abuse among U.S. youth is reported to be as high as 62%, but 71% of our sample reported experiencing verbal abuse (Swedo et al., 2024). For every adverse childhood experience that we assessed and has also been assessed in other samples, the prevalence was consistently elevated among participants in this research study (see Table 11 below).

Similarly, youth in this study were more likely to report experiences of dating abuse as compared to youth of a similar age in a national sample. Using the Measuring Adolescent Relationship Harassment and Abuse (MARSHA) self-report measure, we found that 43% of our sample felt trapped in their relationship (i.e., that they couldn't break up), whereas 17% of a national sample of youth of a similar age reported feeling the same. In our sample, 44% reported that their dating partner yelled, screamed, or swore at them, but only 37% of the national sample reported that experience. In our sample, 29% reported that their dating partner had forced or pressured them to take nude photos, whereas 10% in a national sample reported being forced to take nude photos, and 13% had been pressured for nude photos (de Vries et al., 2022).

Table 11 Adverse Childhood Experiences – ACES

ACES	All % (n)	Agency % (n)	Social Media % (n)	Self Reported CSE % (n)	No Self-Reported CSE % (n)	Comparison to National Data
Emotional neglect	73.26 (389)	78.49 (208)	68.05 (181) **	85.82 (230)	60.46 (159) ***	17.6% a
Verbal abuse	71.40 (377)	70.99 (186)	71.80 (191)	84.21 (224)	58.40 (153) ***	13.5% a ; 61.5%b
Experienced discrimination	66.67 (352)	62.21 (163)	71.05 (189) *	74.81 (199)	58.40 (153) ***	15.0% a
Caregiver mental illness	66.16 (350)	63.50 (167)	68.80 (183)	74.16 (198)	58.02 (152) ***	38.8% a ; 28.4%b
Neighborhood violence	58.17 (306)	61.92 (161)	54.51 (145)	69.81 (185)	46.36 (121) ***	24.4% a
Parent humiliated them	57.92 (307)	67.55 (179)	48.30 (128) ***	73.88 (198)	41.60 (109) ***	--
Sexual abuse by anyone	54.17 (286)	61.60 (162)	46.79 (124) ***	75.47 (200)	32.70 (86) ***	--
Partner Abuse	51.33 (271)	67.80 (179)	34.85 (92) ***	73.68 (196)	28.63 (75) ***	--

ACES	All % (n)	Agency % (n)	Social Media % (n)	Self Reported CSE % (n)	No Self-Reported CSE % (n)	Comparison to National Data
Physical abuse	47.92 (254)	56.44 (149)	39.47 (105) ***	65.17 (174)	30.42 (80) ***	5.9% a ; 31.8%b
Changes in relationship status of caregiver	47.83 (253)	55.89 (147)	39.85 (106) ***	60.53 (161)	34.98 (92) ***	--
Food insecurity	46.33 (246)	58.87 (156)	33.83 (90) ***	62.31 (167)	30.04 (79) ***	18.8% a
Guardian care	44.20 (234)	55.89 (147)	32.71 (87) ***	62.92 (168)	25.19 (66) ***	--
Caregiver substance abuse	43.02 (228)	51.52 (136)	34.59 (92) ***	59.55 (159)	26.24 (69) ***	20.0% a
Housing instability	42.83 (227)	63.26 (167)	22.56 (60) ***	61.80 (165)	23.57 (62) ***	23,5% a
Caregiver incarceration	31.64 (168)	47.17 (125)	16.17 (43) ***	43.28 (116)	19.77 (52) ***	23.2% a; 14.5%b
Parent has experienced suicidal ideation, suicide attempt or death by suicide	28.30 (150)	30.68 (81)	25.94 (69)	38.95 (104)	17.49 (46) ***	
Forced separation	26.37 (140)	47.17 (125)	5.64 (15) ***	39.93 (107)	12.55 (33) ***	10.9% a
Been Arrested	26.28 (139)	49.62 (131)	3.02 (8) ***	42.70 (114)	9.54 (25) ***	--
Parent has a serious physical illness or disability	26.23 (139)	33.71 (89)	18.80 (50) ***	33.58 (90)	18.70 (49) ***	14.1% a
Number of ACEs they have experienced Mean (SD)	17.51 (7.32)	17.99 (7.69)	17.01 (6.91)	20.74 (6.93)	14.24 (16.17) ***	
Parent has died	15.88 (84)	21.21 (56)	10.57 (28) ***	20.97 (56)	10.69 (28) ***	8.5% a
Sexual abuse by parent or adult	--	--	--	--	--	3.5% a; 7.1%b

*p<.05. **p<.01. ***p<.001, comparing the column of interest to those in the "all participants" column

a: comparing with n=185 youth ages 3 months to 11 years, not in foster care, English and/or Spanish speaking, and had a primary caregiver ≥18 years who spoke English and/or Spanish source: Thakur et al., (2020): comparing with high school-attending youth in the USA; source: Swedo EA, Pampati S, Anderson KN, et al. Adverse Childhood Experiences and Health Conditions and Risk Behaviors Among High School Students — Youth Risk Behavior Survey, United States, (2024). MMWR Suppl 2024;73(Suppl-4):39–49.

Table 12 Dating Violence – MARSHA

MARSHA % (n)	All % (n)	Agency % (n)	Social Media % (n)	CSE Self-Reported in Survey % (n)	No CSE Self-Reported % (n)	Comparison to National Data
Disclosed any dating violence (yes to 1 or more)	58.61 (313)	74.44 (198)	42.91 (115) ***	78.07 (210)	38.87(103) ***	--
They yelled, screamed, or swore at me	44.25 (231)	63.98 (167)	24.52(64) ***	65.27 (171)	23.08 (60) ***	37.1%
Made me feel like I couldn't break up	43.21 (226)	53.82 (141)	32.57 (85) ***	63.5 (167)	22.69 (59) ***	17.1%
Looked through phone or other devices without consent	38.05 (199)	54.58 (143)	21.46 (56) ***	57.41 (151)	18.46 (48) ***	25.8%
Asked to give one or more passwords	34.48 (180)	50.96 (133)	18.01 (47) ***	53.05 (139)	15.77 (41) ***	19.2%
They slapped, pushed, shoved, or shook me	29.25 (153)	49.24 (129)	9.20 (24) ***	51.71 (136)	6.54 (17) ***	17.2%
Forced or pressured to take nude photos	28.68 (150)	37.79 (99)	19.54 (51) ***	46.01 (121)	11.15 (29) ***	9.8%

*p<.05. **p<.01. ***p<.001, comparing the column of interest to those in the "all participants" column

a source: de Vries, I., Abeyta, S., Lockwood, S., Cuevas, C. A., & Rothman, E. (2022). A Network Approach to Examining Co-occurring Victimization and Perpetration in Dating Abuse Among a Nationally Representative Sample of US Adolescents. The Journal of adolescent health: official publication of the Society for Adolescent Medicine, 70(6), 934–941. https://doi.org/10.1016/j.jadohealth.2021.12.026

Substance Use

The prevalence of substance use among sexually exploited children in our sample varied substantially based on the recruitment method and whether participants self-reported their CSE status during the survey. Across the entire sample, the most prevalent substances used were vapes (62.74%) and alcohol (26.01% reported binge drinking in the past 30 days). High potency drug use was reported by 29.71% of participants, while cigarette use (14.67%), prescription misuse (29.54%), and injections (5.41%) were less common overall.

Participants recruited through agencies demonstrated notably higher rates of substance use compared to those recruited via social media. For example, STD/HIV rates were significantly higher among agency-recruited participants (17.72%) compared to those recruited via social media (7.23%, $p < .001$). Similarly, agency-recruited participants were more likely to report the use of cigarettes (24.23% vs. 5.04%, $p < .001$), vaping (78.85% vs. 46.51%, $p < .001$), and high potency drugs (43.19% vs. 16.28%, $p < .001$). This trend extended to misuse of prescriptions (35.00% vs. 24.03%, $p < .01$) and drug injections (8.08% vs. 2.71%, $p < .01$).

Participants who self-reported their CSE status in the survey reported higher rates of substance use across nearly all measures. For instance, hard drug use was markedly more common among self-reporting participants (50.19%) compared to non-self-reporting participants (8.98%, $p < .001$). Similarly, self-reporting CSE was associated with increased STD/HIV rates (21.03% vs. 3.98%, $p < .001$), cigarette use (25.67% vs. 3.50%, $p < .001$), and vaping (80.00% vs. 45.35%, $p < .001$). Prescription misuse (39.23% vs. 19.77%, $p < .001$) and drug injections (10.34% vs. 0.39%, $p < .001$) were also substantially higher among self-reporting participants.

These findings highlight distinct differences in substance use based on recruitment method and self-reporting CSE status. Agency-recruited participants and those who self-reported their CSE experiences consistently reported higher rates of substance use and associated health risks, such as STD/HIV rates. This pattern suggests that agency-recruited and self-reporting participants may represent more vulnerable subsets of CSE victims or those experiencing greater barriers to healthcare and substance use intervention.

The elevated rates of vaping and high-potency drug use, particularly among self- reporting participants, underscore the urgent need for targeted harm-reduction strategies.Trauma-informed interventions are crucial to addressing the intersection of substance use and health risks among exploited youth, with particular attention to those who are more likely to self- report their experiences or are engaged through agencies.

Comparing substance use patterns among youth who self-reported experiences of exploitation to general trends observed in the CDC's Youth Risk Behavior Survey (YRBS, 2023) reveals noteworthy differences in prevalence. While alcohol consumption among high school students has generally declined over the past decade, dropping from 38.0% to 27.0% for female students and from 39.0% to 19.0% for male students, the rate of heavy drinking remains high among participants who self-reported experiences of exploitation. Specifically, 38.0% of these participants reported consuming four or more consecutive drinks, compared to just 15.0% of non-self-reporting peers. Similarly, while vaping has decreased among the general youth population, with 21.0% of females and 15.0% of males reporting use in 2021, the prevalence is far greater among those who self-reported exploitation (53.0%). According to the YRBS data, 13.0% of students reported ever using certain illicit drugs, such as cocaine, inhalants, heroin, methamphetamines, hallucinogens, or ecstasy. Alarmingly, within our sample, nearly three times as many participants reported using hard drugs, with the rate rising to 50.0% among those who self-reported experiences of CSE. Current misuse of prescription opioids was reported by 6.0% of high school students in 2021, while among exploited youth from our survey, the prevalence of prescription drug misuse reached 40.0% (YRBS, 2023). These comparisons reveal the heightened vulnerability and risk of exploited youth to substance use.

Table 13 Substance Use

Substance Use	All % (n)	Agency % (n)	Social Media % (n)	Self-Reported CSE % (n)	No Self-Reported CSE % (n)
Vapes (lifetime)	62.74 (325)	78.85 (205)	46.51 (120) ***	80.00 (208)	45.35 (117) ***
Hard Drugs (lifetime)	29.71 (153)	43.19 (111)	16.28 (42) ***	50.19 (130)	8.98 (23) ***
Misuse of Prescriptions (lifetime)	29.54 (153)	35.00 (91)	24.03 (62) **	39.23 (102)	19.77 (51) ***
Four Consecutive Drinks in a Couple Hours (last 30 days)	26.01 (135)	28.74 (75)	23.26 (60)	37.55 (98)	14.34 (37) ***
Cigarettes (last 30 days)	14.67 (76)	24.23 (63)	5.04 (13) ***	25.67 (67)	3.50 (9) ***
STDs and HIV (lifetime)	12.52 (63)	17.72 (45)	7.23 (18) ***	21.03 (53)	3.98 (10) ***
Injections (lifetime)	5.41 (28)	8.08 (21)	2.71 (7) **	10.34 (27)	0.39 (1) ***

*p<.05. **p<.01. ***p<.001, comparing the column of interest to those in the "all participants" column

Research Question 3: To what degree do psychological effects of commercial sexual exploitation victimization impact short- and long-term physical health outcomes for minors?

Summary Findings:

- **Mental Health as a Mediator:** The analysis found that mental health (anxiety, depression, dissociation) significantly mediates the relationship between reporting CSE on the survey and physical health outcomes. Poor mental health was associated with worse physical health across survey respondents.
- **Indirect Negative Effect of CSE:** The indirect effect of experiencing commercial exploitation on health outcomes (physical activity level, quality of sleep, etc.), mediated through mental health, was negative, leading to a 5.95% decrease in the odds of better health outcomes. This means the relationship between experiencing CSE and health outcomes is partially explained by having worse mental health. This suggests that addressing mental health needs is key to better health outcomes.
- **Overall Effect of CSE**: The total effect of CSE on physical health outcomes reveals a complex dynamic. The mental health challenges associated with victimization lead to a 4.01% overall decrease in the likelihood of better health outcomes ($p = 0.02$), underscoring the importance of addressing mental health in intervention strategies.

In this section, we employ structural equation modeling (SEM) to address Research Question 3: To what degree do the psychological effects of CSE victimization impact short- and long-term physical health outcomes? This question is critical because it seeks to unravel the mechanisms by which the trauma of exploitation contributes to negative health trajectories, both immediately following victimization and into adulthood. In the previous analysis, we established that young people who reported CSE victimization reported significantly worse physical health outcomes compared to their peers who did not self-report such experiences. Building on this foundation, we aim to explore the interplay between psychological effects—such as depression, dissociation, and anxiety—and physical health, investigating whether and how mental health mediates the relationship between CSE victimization and health outcomes. Understanding these pathways is vital for developing interventions that address not only the immediate health needs of survivors but also the long-term effects of trauma, ultimately informing policies and practices to improve survivor well-being.

Analytic Strategy Spotlight

To investigate the psychological effects of CSE victimization on physical health outcomes, Structural Equation Modeling (SEM) was employed. SEM allowed for the evaluation of the complex relationships between CSE victimization (CSE), psychological distress (measured through tools such as the TSCC), and negative health outcomes (including self-rated health and other physical health concerns). Psychological distress was considered as a mediator that connected victimization to adverse health outcomes and health risk behaviors. This approach provides insights into how the psychological effects of CSE may influence physical health. SEM is preferred in this case because it can model complex relationships and test mediation effects while accounting for measurement error, making it statistically more powerful than traditional regression models. Model fit was assessed using multiple fit indices such as the Comparative Fit Index (CFI), Root Mean Square Error of Approximation (RMSEA), and Standardized Root Mean Residual (SRMR). Acceptable thresholds for these indices (e.g., CFI > .90, RMSEA < .08) guided the model fit evaluation. In addition, VIFs were calculated to check for multicollinearity before conducting the SEM analysis to ensure that the predictors do not interfere with one another, thereby potentially biasing the results. Statistical power analyses may also be conducted to ensure the model is adequately powered to detect meaningful effects.

Structural Equation Modeling (SEM)

SEM was used to evaluate the link between sex trafficking victimization and the severity of trafficking history to physical health quality. Physical health quality was represented as a latent variable constructed from four indicators: whether respondents reported feeling their physical health was good, being able to participate in daily activities, sleeping eight hours per night, and feeling they were getting enough sleep over the last 30 days. The model explored whether psychological distress—including anxiety, depression, and dissociation—acts as a bridge connecting victimization to these health issues.

SEM was chosen for two main reasons. First, it is ideal for testing mediation effects. Second, it accounts for measurement errors in the analysis, making it a more accurate and reliable method compared to traditional regression techniques (Tabachnick & Fidell, 2001). This analysis traced the pathway from respondents' self-reporting of exploitation in our survey to mental health issues and, ultimately, to health outcomes such as perceived physical health, activity participation, and sleep quality. By examining both direct effects (e.g., victimization directly affecting health) and indirect effects (e.g., mental health mediating this relationship), the SEM provides a clearer picture of how psychological and physical health are interconnected for trafficking survivors.

The analysis reveals several important findings related to the psychological effects of minor sex trafficking victimization on physical health outcomes, both in the short and long term. Key findings, including the direct and indirect effects of mental health and demographic factors on health outcomes, are described below.

- The relationship between mental health and health outcomes is significant. For each unit decrease in mental health, the odds of experiencing better health outcomes decrease by approximately 1.08% (Coefficient = -0.01, $\beta = 0.99$, 95% CI [0.98, 0.99], $p < 0.001$) (See Table 14). This underscores the critical role of mental health in determining physical health outcomes, with worsening mental health significantly reducing the likelihood of positive health outcomes.
- The direct effect of experiencing sex trafficking victimization on health outcomes reveals a small but measurable decrease in the odds of positive health outcomes (Coefficient = -0.0093, $\beta = 0.9907$, 95% CI [0.98, 0.99], $p < 0.001$). While the direct impact is modest, the findings emphasize the need for integrating mental health support into survivor care to mitigate potential adverse effects.
- While the coefficient suggests a modest negative direct effect on health, this finding underscores the complexity of self-reporting's impact, highlighting the importance of integrating mental health support into care for survivors to mitigate potential adverse effects.
- Regarding demographic factors, Black respondents had significantly worse health (34.6% decrease in the odds of positive health outcomes, Coefficient = -0.43, $\beta = 0.654$, 95% CI [0.59, 0.72], $p < 0.001$) compared to white respondents. Meanwhile, there were no differences between health outcomes for Latina/o/e respondents compared to white respondents. Additionally, identifying as LGB is associated with a 105.8% increase in the odds of positive health outcomes (Coefficient = 0.72, $\beta = 2.058$, 95% CI [1.87, 2.27], $p < 0.001$). We found no regional differences in the odds of positive health outcomes.
- The indirect effect of sex trafficking victimization on health outcomes, mediated through mental health, is significant (Coefficient = -0.06, $\beta = 0.94$, 95% CI [0.91, 0.96], $p < 0.001$). CSE experience is linked to a 5.95% lower likelihood of achieving positive health outcomes, mainly due to its negative effects on mental health. This suggests that mental health partially mediates the relationship between sex trafficking victimization and health outcomes. Specifically, the psychological impact of victimization significantly contributes to worse health outcomes.

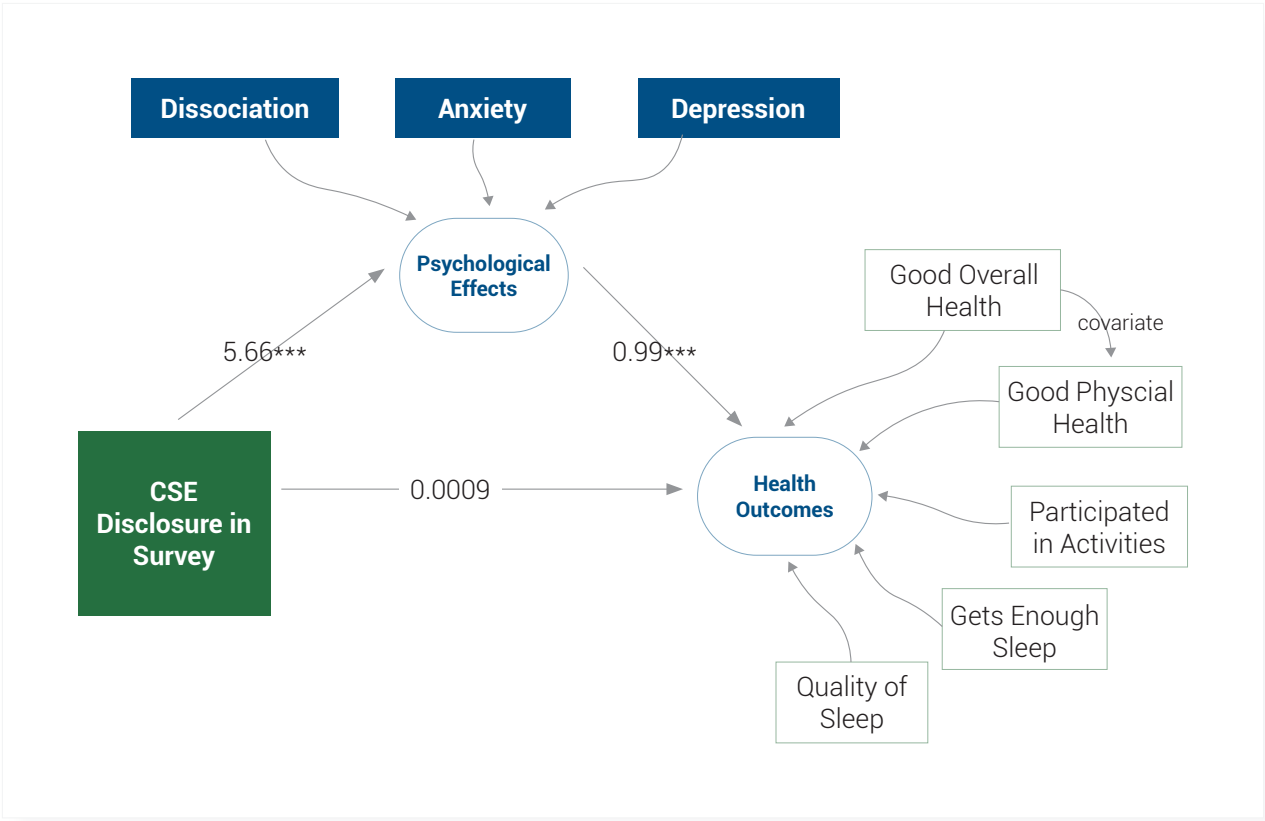
As illustrated in Figure 2, when considering both direct and indirect pathways, the total effect of sex trafficking victimization on health outcomes is significant (Coefficient = -0.04, $\beta = 0.96$, 95% CI [0.92, 0.99], $p < 0.02$). Survivors who experience mental health challenges tend to have worse physical health outcomes, while those without such challenges may show more favorable health outcomes. These findings highlight the complexity of the interplay between psychological effects and physical health in the context of minor sex trafficking victimization.

Table 14 SEM CSE Self-Reporting → Psychological Effects (anxiety, depression, dissociation) → Reported Physical Health

Pathway	Coefficient	Betas β	Standard Error	p	95% Confidence Interval
Direct Pathway					
Health→Mental	-0.01***	0.99	0	< .001	[0.98, 0.99]
CSE Self-Report → Health	-0.0093	2.094	0.02	0.698	[-0.56, 0.04]
Age	0	1	0	0.34	[0.99, 1.00]
Black (Race)	-0.43***	0.654	0.05	< .001	[0.59, 0.72]
Latino (Race)	0.06**	1.06	0.02	< .001	[1.02, 1.09]q
Midwest (Region)	-0.02	0.99	0.02	0.52	[0.94, 1.03]
South (Region)	-0.25**	0.778	0.09	< .001	[0.63, 0.92]
LGB (Sexual Orientation)	0.72***	2.058	0.11	< .001	[1.87, 2.27]
Male (Gender)	0.09***	1.1	0.02	< .001	[1.05, 1.15]
Indirect Pathway CSE Mental → Health→Health	-0.06***	0.94	0.01	< .001	[0.91, 0.96]

*p<.05. **p<.01. ***p<.001, comparing the column of interest to those in the "all participants" column

Figure 2 SEM CSE Self-Report ⟶ Psychological Effects (anxiety, depression, dissociation) ⟶ Reported Physical Health



β are shown; *p<.05. **p<.01. ***p<.001
Demographic variables are not shown but were direct paths to health outcomes.

These findings underscore the critical role of mental health in mediating the relationship between being in the group of respondents who have self-reported sex trafficking and negative physical health outcomes. The results indicate that while being in the self-report group has a direct positive effect on physical health, its indirect effect through mental health is detrimental.

Research Question 4: To what degree do survivors of minor sex trafficking access physical and psychological health services? What types of services do they access, and how and by whom is this access facilitated?

Summary Findings:

- **Healthcare utilization:** Young people who experience CSE or who are at high risk of CSE victimization have connections to healthcare, and a majority feel they have some-place they can rely on to meet their healthcare needs.
- **Health Insurance:** Access to health insurance was strongly associated with increased healthcare utilization (110% higher). Those with insurance, particularly those covered by parents' insurance, had better access to health services.
- **Crisis Care Service Utilization:** During situations of exploitation, however, youth relied on immediate or crisis-based healthcare services. Youth who self-reported experiencing CSE on the survey were significantly more likely to report visiting the ER in the last year (54%) compared to non-reporting youth (30%, $p < .001$). Similarly, youth who self-reported CSE victimization had higher inpatient admission rates (29%) compared to non-self-report youth (9.0%, $p < .001$).
- **Predictors of Healthcare Utilization:** Young people who self-reported experiencing CSE on the survey were more likely to utilize healthcare than those who did not self-report CSE (a 46% increase in healthcare utilization). Respondents who identified as LGBTQ had a 50% increase in healthcare utilization compared to non-LGB identifying youth. Age and recruitment method were not significantly associated with healthcare utilization.

This section provides information on the degree to which young people who experience commercial sexual exploitation (CSE) access physical and psychological health services, the types of services utilized, and the mechanisms through which access is facilitated. Access to healthcare is a critical component of recovery and well-being for CSE survivors, as many face complex physical and mental health challenges stemming from their exploitation. Young people who experience exploitation may access healthcare across a variety of settings, including primary care facilities, emergency departments, clinics, short and long-term hospitals, school- based health-care, and reproductive health clinics (Baldwin et al., 2023). In this section, we explore how CSE survivors navigate healthcare systems, the types of healthcare systems where they have the most engagement, and their experiences with these systems. This analysis informs strategies to improve access, reduce barriers, and ensure equitable, compassionate care for CSE survivors

Analytic Strategy Spotlight

The analysis of health service access begins with descriptive statistics, calculating health-care utilization rates, including emergency/urgent care, primary care physicians, mental health services, hospitalizations, and other medical services. This provides a clear picture of which services are most accessed by survivors. Regression analyses were then employed to examine the factors that influence healthcare access, including demographic variables (e.g., race, gender, sexual orientation), victimization history, and health conditions (both physical and psychological). Logistic regression models were used when the dependent variables were binary (e.g., accessing mental health services: yes/no). Multicollinearity was checked by calculating VIFs to ensure that predictor variables do not exhibit excessive collinearity, which could distort the regression results. Additionally, the goodness-of-fit of logistic regression models was assessed using the Hosmer-Lemeshow test in Stata, which helped determine whether the model adequately fits the data.

Insurance Access and Preventive Care Services

Promisingly, a substantial proportion of the young people in our sample reported having health insurance and engaging with some healthcare services in the last year.

- Overall, 81% of the sample reported having health insurance, suggesting most study participants had some access to basic healthcare coverage.
- Encouragingly, most youth (86%) in our sample had seen a doctor in the past year, and 63% had visited a dentist in the same period. Roughly three-fourths (72%) of respondents reported having a place to go when they were physically sick or needed health advice.
- Over half of the sample (54%) reported using other mental healthcare services, such as individual, group, or family therapy.

Crisis Care Services

Despite high engagement with healthcare services, notable disparities were observed in emergency and mental healt-care utilization. Among the youth surveyed, 35% reported visiting the emergency room in the past year. Youth who self-reported CSE victimization on the survey were more likely to have visited the emergency room in the last year (44%) compared to youth who did not report experiencing CSE (26%), This finding suggests that youth who self-reported exploitation may experience more acute health crises or barriers to accessing regular care, resulting in higher reliance on emergency services.

Crisis and acute mental health-care utilization revealed critical patterns.

- Nineteen percent (19%) of the sample reported being admitted to an inpatient mental health facility over the past period (exact timeframe unspecified).
- Youth who self-reported experiences of exploitation on the survey were much more likely to report inpatient admissions (28.7%) compared to 9.0% of the youth who did not self-report exploitation.
- 41.5% of survey respondents reported being prescribed psychiatric medication by a psychiatrist or doctor. Participants who self-reported CSE victimization were more likely to report psychiatric prescriptions (46.2%, n = 117) compared to young people who did not self-report CSE (36.9%, n = 94, $p < .05$).

Agency-recruited participants also reported higher usage of partial or day hospitalization services (25.1%) compared to social media-recruited participants (13.9%, $p < .01$). Additionally, participants who self-reported exploitation were more likely to use these services (26.1%) compared to non-self-report youth (12.9%, $p < .001$). These trends highlight the significant mental health needs among youth who were recruited from agencies or who self-reported exploitation, suggesting that these groups may face higher psychological burdens necessitating intensive care.

Table 15 Healthcare Utilization and Access

Self-Reported Health-Care Utilization	All % (n)	Agency % (n)	Social Media % (n)	Self-Reported CSE % (n)	No Self-Reported CSE % (n)
Went to see a doctor in a setting other than an emergency room in the last year	85.71 (414)	78.21 (183)	92.77 (231) ***	86.42 (210)	85.00 (204)
Has health-care covered by insurance	81.1 (417)	71.26 (186)	91.30 (231) ***	77.91 (201)	84.38 (216)
On parent insurance	66.9 (277)	44.02 (81)	85.22 (196) ***	54.27 (108)	78.60 (169) **
Place to go when you are physically sick or need advice about health	72.44 (368)	68.09 (175)	76.89 (193) *	72.05 (183)	72.83 (185)
Went to see a dentist past 12 months	62.99 (320)	59.14 (152)	66.93 (168)	53.94 (137)	72.05 (183) ***
Participate in individual, group, or family therapy	53.75 (272)	47.66 (122)	60.00 (150) **	54.94 (139)	52.57 (133)
Prescribed psychiatric medication by a psychiatrist or doctor	41.54 (211)	36.72 (94)	46.43 (117) *	46.25 (117)	36.86 (94) *
Went to see emergency room	35.21 (188)	51.11 (112)	28.36 (76) ***	44.24 (119)	26.04 (69) ***
Used a partial or day hospitalization service	19.53 (99)	25.10 (64)	13.89 (35) **	26.09 (66)	12.99 (33) ***
Been admitted to an inpatient unit for mental health	18.86 (96)	27.63 (71)	9.92 (25) ***	28.74 (73)	9.02 (23) ***

*p<.05. **p<.01. ***p<.001, comparing the column of interest to those in the "all participants" column

Predictors of Healthcare Access

Table 16 presents binary logistic regression results examining the likelihood of various healthcare utilization (HCU) behaviors across different characteristics of respondents, including demographics, insurance access, and self-reporting of CSE. The binary logistic regression results reveal significant patterns in healthcare utilization among CSE survivors.

Demographics

- Black respondents were significantly more likely to have seen a primary doctor, with a 202% increase in the odds compared to white respondents ($p < .05$).
- LGB respondents demonstrated a 106% increase in the odds of seeing a therapist ($p < .001$) and a 272% increase in the odds of receiving inpatient care ($p < .001$), reflecting heightened engagement with mental health services.
- Older respondents were less likely to access certain healthcare services, with each additional year of age linked to a 12% decrease in the odds of seeing a primary doctor ($p < .05$) and an 11% decrease in the odds of visiting a dentist ($p < .01$).
- Male respondents were 49% less likely to have seen a therapist compared to females ($p < .05$).

Self-Reporting of CSE

- Self-reporting of CSE was associated with a 109% increase in the odds of seeing a primary doctor ($p < .05$) and a 74% increase in the odds of being prescribed psychiatric medication ($p < .05$).
- However, CSE self-reporting was linked to a 44% decrease in the odds of visiting a dentist ($p < .01$), reflecting challenges in accessing dental care despite other forms of healthcare engagement.
- Additionally, participants reporting CSE had a 200% increase in the odds of being hospitalized ($p < .05$) and a 207% increase in the odds of receiving inpatient care ($p < .001$), highlighting their heightened medical and mental health needs.

Insurance

- Insurance played a pivotal role in healthcare access, with insured respondents experiencing a 407% increase in the odds of seeing a primary doctor ($p < .001$), a 197% increase in the odds of visiting a dentist ($p < .001$), and a 123% increase in the odds of seeing a therapist ($p < .01$). These findings underscore the critical importance of insurance in enabling healthcare utilization.

Self-Reported Positive Health

- Self-reported positive health was significantly associated with a 20% increase in the odds of having a designated location for health advice ($p < .001$).
- Self-reported positive health was linked to a 9% decrease in the odds of receiving psychiatric medication ($p < .05$) and a 12% decrease in the odds of inpatient care ($p < .05$), suggesting reduced reliance on intensive interventions among those reporting improved health

Table 16. Binary Logistic Regressions of each HCU Item

Predictors	Have a Location for Health Advice Odds Ratio (95% CI)	Seen Primary Doctor Odds Ratio (95% CI)	Gone to a Dentist Odds Ratio (95% CI)	Been to a Therapist Odds Ratio (95% CI)	Prescribed Psychiatric Medication Odds Ratio (95% CI)	Been Hospitalized Odds Ratio (95% CI)	Been in Inpatient Care Odds Ratio (95% CI)	Been Admitted to an ER Odds Ratio (95% CI)
Self-Reported CSE	1.48 (0.91-2.39)	2.09 (1.05-4.18) *	0.56 (0.36-0.87) **	1.35 (0.87-2.10)	1.74 (1.12-2.72) *	2.00 (1.15–3.46) *	3.07 (1.67-5.37) ***	1.77 (1.13-2.78) **
Positive Health Outcome	1.20 (1.09-1.33) ***	1.00 (0.87-1.14)	1.09 (0.99-1.20) *	0.95 (0.87-1.04) *	0.91 (0.83-0.99)	0.93 (0.83-1.04)	0.88 (0.78-0.99)	0.95 (0.87-1.04)
Insurance	3.26 (1.91-5.57) ***	5.07 (2.62-9.79) ***	2.97 (1.74-5.06) ***	2.23 (1.30-3.81)**	2.05 (1.16-3.63)*	1.91 (0.97-3.79)	3.40 (0.92-3.73)	0.94 (0.54-1.56)
Recruited thru Social Media	1.34 (0.75-2.42)	5.44 (2.32-12.75) ***	0.87 (0.50-1.50) ***	1.05 (0.62-1.77) ***	1.20 (0.71-2.04)	0.33 (0.17-0.64)	0.16 (0.07-0.34)	0.65 (0.38-1.12)
Black	0.85 (0.42-1.71)	3.02 (1.09-8.34) *	1.05 (0.56-1.98)	0.81 (0.44-1.48)	0.65 (0.35-1.21)	0.77 (0.36-1.65)	0.73 (0.33-1.63)	1.02 (0.55-1.90)
LatinX	0.63 (0.33-1.17)	1.36 (0.59-3.15)	0.67 (0.37-1.20)	0.69 (0.39-1.22)	0.71 (0.40-1.26)	0.61 (0.29-1.25)	0.49 (0.23-1.06)	1.15 (.064-2.08)

Predictors	Have a Location for Health Advice Odds Ratio (95% CI)	Seen Primary Doctor Odds Ratio (95% CI)	Gone to a Dentist Odds Ratio (95% CI)	Been to a Therapist Odds Ratio (95% CI)	Prescribed Psychiatric Medication Odds Ratio (95% CI)	Been Hospitalized Odds Ratio (95% CI)	Been in Inpatient Care Odds Ratio (95% CI)	Been Admitted to an ER Odds Ratio (95% CI)
Asian	0.20 (0.07-0.61) **	0.61 (0.14-2.55)	2.12 (0.60-7.47)	1.39 (0.45-4.32)	0.36 (0.11-1.21)	0.61 (0.12-3.16)	0.49 (0.08-2.91)	0.29 (.06-1.41)
Mixed	(0.37-1.28)	(0.57-3.09)	(0.44-1.39)	(0.38-1.15)	(0.37-1.14)	(0.49-1.89)	(0.28-1.24)	(0.49-1.59)
Midwest	1.28 (0.54-3.04)	0.47 (0.14-1.54)	1.18 (0.55-2.50)	0.91 (0.44-1.87)	0.87 (0.42-1.81)	0.66 (0.20-2.14)	1.89 (0.66-5.36)	0.53 (0.22-1.26)
South	1.15 (0.66-2.02)	0.78 (0.36-1.70)	1.03 (0.61-1.74) *	1.92 (1.15-3.20) **	1.46 (0.88-2.43)	2.44 (1.32-4.54)	1.76 (0.89-3.48)	1.09 (0.65-1.84)
West	1.15 (0.55-2.41)	0.55 (0.21-1.44)	1.89 (0.92-3.87)	1.79 (0.93-3.46)	0.79 (0.41-1.53)	0.78 (0.29-2.06)	0.54 (0.17-1.72)	0.63 (0.29-1.29)
Age	0.98 (0.90-1.06)	0.88 (0.79-0.99) *	0.89 (0.83-0.96) **	0.93 (0.87-1.00) *	0.96 (0.90-1.03)	0.86 (0.79-0.94) ***	0.88 (0.79-0.97) ***	1.05 (0.98-1.13)
Males	0.84 (0.42-1.68)	1.97 (0.69-5.64)	0.68 (0.35-1.32)	0.51 (0.27-0.98) *	0.51 (0.25-1.05)	1.54 (0.67-3.53)	2.43 (1.02-5.84)	0.97 (0.49-1.91)
LGB	0.91 (0.56-1.48)	0.93 (0.49-1.76)	0.63 (0.40-0.98)	2.06 (1.35-3.13)	2.04 (1.32-3.15)	2.09	3.72 (1.93-7.16)	1.36 (0.87-2.13)

Within the last year
*p<.05. **p<.01. ***p<.001, comparing the column of interest to those in the “all participants” column

Focus Issue: Adult Survivors and Reproductive Healthcare

In addition to the quantitative analysis, qualitative data from interviews provided deeper insights into the complex ways survivors of CSE experience healthcare access barriers. Reproductive healthcare emerged as a uniquely accessible and critical component of care during exploitation. Survivors frequently relied on services like Planned Parenthood, which they described as nonjudgmental and welcoming compared to other healthcare providers.

Among the 35 interviews, there were 188 references to reproductive healthcare, with 68% occurring during CSE experiences. Planned Parenthood was explicitly mentioned 85 times, underscoring its importance as a trusted provider. One participant shared: "I only remember going to Planned Parenthood when I was on my own, like out there, I don't remember going to any other like healthcare type of clinics or anything" (Interview #23). Survivors noted that gynecologists and reproductive health providers often offered empathetic care, addressing critical needs such as contraception and treatment for infections. For many, these providers represented one of the few consistent and non-discriminatory sources of care during exploitation.

Survivors noted that reproductive healthcare providers, particularly gynecologists and organizations like Planned Parenthood, were more likely to offer nonjudgmental, welcoming, and empathetic care compared to other medical professionals. This accessibility made reproductive health services one of the few consistent avenues for receiving care during exploitation. As one participant recounted, "I went to the gynecologist a couple of times during [trafficking] because they were the only ones who didn't make me feel judged or ashamed. I felt safer there than with any other doctor" (Interview #15). The focus on addressing reproductive health needs—ranging from contraception to treating infections—was often seen as a lifeline, albeit a narrow one, amidst an otherwise hostile healthcare landscape.

However, attention to mental health and psychological well-being, such as access to counseling, was notably absent during this period. One survivor reflected, "They didn't ask me if I wanted to speak to a therapist. They didn't ask me if I wanted to get a gynecologist check-up" (Interview #1). These accounts underscore the duality of reproductive healthcare as both a rare source of support and a missed opportunity for broader holistic care. Challenges remained, particularly with accessing continuous care. One survivor noted how periods without healthcare or medication, such as during job transitions or insurance gaps, contributed to worsening health: "When I was in between jobs at one point, I didn't have health insurance for like 2 months, and then my medications were like hundreds of dollars" (Interview #23).

The short- and long-term physical and psychological health concerns for young people who experience CSE are deeply interconnected, with survivors experiencing significant gaps in care and support throughout their lives. These concerns are compounded by trauma, stigma, and barriers to accessing care, which persist even after leaving exploitation. Nonetheless, reproductive healthcare emerged as a critical and uniquely accessible component of care during exploitation, with survivors consistently describing it as less discriminatory, more welcoming, and less judgmental compared to other healthcare experiences. The prominence of organizations like Planned Parenthood in survivors' narratives underscores the need for trauma-informed,

Focus Issue: Discrimination Barriers

Our research starts to highlight the significant barriers to healthcare faced by youth who have experienced CSE. Statistical analyses show that CSE is strongly associated with increased medical discrimination as another barrier they are facing. 47% of survivors felt perceived as unintelligent, and 66% stated that doctors or nurses did not listen to them. OLS and logistic regression models examined the associations between victimization histories and perceived discrimination in healthcare settings. We found that youth with CSE experiences face higher odds of encountering discriminatory treatment in medical settings compared to other victimization histories.

The findings presented in Table 17 explore the differential experiences of medical discrimination among all participants, notably between those who reported CSE in our survey versus those who did not. The results, obtained through independent sample t-tests, highlight significant disparities in the perception of discrimination within healthcare settings. Participants who reported CSE reported a higher mean score ($M=2.6$, $SD=1.1$) compared to those who did not self-report such experiences ($M=1.9$, $SD=1.0$), suggesting they felt they were treated with significantly less courtesy ($p<0.001$). There was a perceived intellectual bias, where participants reporting CSE felt that doctors or nurses acted as if they were not smart ($M=2.8$, $SD=1.2$) more so than those without such experiences ($M=1.9$, $SD=1.1$) ($p<0.001$). Participants who reported CSE reported feeling that healthcare providers were not listening to them ($M=3.1$, $SD=1.2$) to a greater extent than those who did not report CSE ($M=2.3$, $SD=1.2$) ($p < 0.001$).

Qualitative interviews further illuminate the depth of discrimination that survivors experience. One participant described feeling stigmatized by medical professionals, stating, "[They] thought of me as a drug addict and liar and whatnot" (Interview #22). This statement exemplifies the pervasive negative biases that survivors face, highlighting the intersection of trauma, stigmatization, and healthcare access.

The quantitative and qualitative data underscore the significant role that victimization history—particularly CSE—plays in shaping healthcare experiences. This may be related to the highly stigmatized nature of certain victimization experiences and the lack of comfort or knowledge among providers and supporting CSE survivors. Survivors of CSE face not only physical and psychological challenges but also systemic barriers that prevent them from receiving equitable care. These findings will be further explored in future publications, with a deeper analysis of discrimination experiences and their broader implications for healthcare practices and policy.

Table 17. Discrimination Items by CSE Self-Report in Survey (N=510)

Medical Discrimination Items	All	Self-Reported CSE	No Self-Reported CSE
Adapted Everyday Discrimination Scale for Healthcare Mean (SD)			
Feel like a doctor or nurse is not listening to what you were saying	2.7 (1.3)	3.1 (1.2)	2.3 (1.2) ***
Doctor or nurse acted as if he or she thinks you are not smart	2.4 (1.2)	2.8 (1.2)	1.9 (1.1) ***
Treated with less courtesy than other people	2.3 (1.1)	2.6 (1.1)	1.9 (1.0) ***
Treated with less respect than other people	2.3 (1.1)	2.7 (1.0)	1.9 (1.0) ***
Received poorer service than others	2.3 (1.1)	2.7 (1.1)	1.8 (1.0) ***
Doctor or nurse acts as if he or she is better than you	2.3 (1.3)	2.8 (1.2)	1.9 (1.1) ***
Doctor or nurse acts as if he or she is afraid of you	1.6 (1.0)	1.9 (1.1)	1.2 (1.0) ***
Medical Discrimination of Identity % (n)			
Race	30.4 (163)	41.2 (111)	19.6 (52)***
Gender	27.3 (146)	26.8 (72)	37.9 (74)
Ethnicity	23.9 (128)	33.8 (91)	13.9 (37)***
Sexual Orientation	23.8 (127)	27.1 (73)	20.4 (54)
Color of skin	21.4 (114)	33.5 (90)	9.1 (24)***
Disability	17.9 (96)	20.8 (56)	15.1 (0)
Experienced CSE	11.1(59)	21.9 (59)	0 (0)***
Immigration status	4.3 (23)	2.6 (7)	6.0 (16)*

*p<.05. **p<.01. ***p<.001, comparing the column of interest to all participants column

Research Question #5 What are the barriers to meeting the health and wellness needs of young people who experience commercial sexual exploitation?

Summary Findings:

- **Physical, Psychological, and Systemic Barriers Across Stages:** The study reveals that healthcare access for survivors of CSE is shaped by evolving physical (e.g., transportation, financial limitations), psychological (e.g., shame, mistrust), and systemic (e.g., lack of trauma-informed care) barriers at each stage of survivorship—before, during, and after exploitation. These barriers not only prevent access to care but also hinder meaningful engagement and sustained healthcare relationships.
- **Impact of Past Negative Experiences:** Negative encounters with healthcare providers, such as stigma, retraumatization, and lack of understanding of CSE experiences, can have lasting effects, leading to disenchantment with the healthcare system. These experiences often result in survivors avoiding care altogether, opting for self-care or alternative treatments, underscoring the importance of a trauma-informed, survivor-centered healthcare approach.
- **Barriers to Engagement After Exploitation:** After exiting situations of exploitation, survivors are often most ready to seek healthcare but face significant challenges in accessing care. These challenges include financial constraints, PTSD, feelings of shame, fear of being judged or seen as a burden, and the ongoing trauma from their experiences. Despite these obstacles, survivors rely on peer support networks, community advocates, and healthcare navigators to engage with healthcare systems.
- **Critical Need for Healthcare Navigators:** Healthcare navigators could play a pivotal role in helping survivors connect with providers who have a deep understanding of exploitation and comorbid issues such as trauma and addiction, CSE, and exploitation-related care and support systems that understand their complex needs. Navigators help mitigate systemic barriers such as fragmented care and lack of trauma-informed practices, fostering trust and improving survivors' ability to access consistent, high-quality care.

Healthcare access for young people who experience exploitation is shaped by a complex interplay of physical, psychological, and systemic barriers that vary across stages of survivorship. These barriers influence the process of seeking care (deciding to access healthcare), engaging with care (navigating systems and interpersonal interactions to receive services), and sustaining care (maintaining ongoing healthcare relationships). The experiences of survivors examined here highlight the complex ways these barriers intersect, often compounded by trauma histories, stigmatization, and structural inequities.

Using data from in-depth interviews with 35 adult survivors of CSE that occurred when they were minors, we explored barriers survivors face in meeting their health and wellness needs, organized into physical barriers (such as transportation and resource limitations), psychological barriers (such as mistrust, shame, and fear of stigmatization), and systemic barriers (such as fragmented care and untrained providers) across three distinct stages of survivorship – before

exploitation, during exploitation, and after exploitation. Our analysis also highlights facilitators that survivors identified as critical to overcoming these challenges at each stage and sets the stages for recommendations to improve healthcare access and experiences. Unique barriers and facilitators to healthcare access, engagement, and sustained care were found in each stage of survivorship, as outlined in Table 18 below. Recognizing these stages helps clarify the dynamic ways survivors interact with healthcare systems and highlights opportunities for intervention. These stages demonstrate how barriers evolve and compound over time. While some challenges persist across all stages (e.g., systemic unawareness, stigma), others are unique to specific points in a survivor's journey. Addressing these barriers holistically and within the context of survivors' lived experiences can improve care outcomes

Table 18: Themes Across Life Stages

Barrier Category	Before Exploitation	During Exploitation	After Exploitation
Physical or Tangible Barriers	• Limited healthcare options, especially in underserved areas. • Financial constraints, parental negligence, lack of transportation. • Dependence on parents for access.	• Exploiters control access (transportation, financial). • Limited clinic availability. • Health neglect normalized.	• Continuing financial/logistical barriers. • Difficulties finding safe healthcare spaces. • Limited access to gender-affirming care.
Psychological Barriers	• Fear and distrust of healthcare due to trauma. • Guilt and shame around abuse/neglect. • Fear of "outside" help.	• Increased guilt, fear of consequences. • Trauma responses (hypervigilance, distrust). • Fear of stigma and retraumatization.	• Lingering shame, PTSD. • Self-worth struggles. • Fear of stigmatization, need for validation.
Systemic Barriers	• Few trauma-informed providers. • Lack of CSE or any victimization screening in health settings. • Inconsistent care quality.	• Lack of trauma-informed care leads to retraumatization. • Survivor exploitation reflected in healthcare. • Poor communication, lack of CSE discussion.	• Ongoing lack of trauma-informed care. • Fragmented care systems. • Stigmatization and inconsistent follow-up.

The analysis of interviews with 35 adult survivors of CSE that occurred when they were minors reveals a range of barriers that hinder access to healthcare at multiple stages of their lives, with each stage presenting unique challenges. These barriers are interrelated and evolve as survivors progress through the phases of before, during, and after exploitation.

Before Exploitation

Survivors face primarily physical barriers such as limited healthcare options, financial constraints, and dependence on caregivers for access to healthcare. Barriers experienced during this stage are related to their early environments and systemic inequities that limit access to care. These challenges can shape long-term attitudes toward healthcare. Physical Barriers: Many survivors grow up in resource-poor communities where healthcare is treated as an emergency- only option, with transportation, poverty, and parental neglect further limiting access. Youth in state systems, such as foster care, may face inconsistent care quality depending on their placements. Abuse in the home and fear of outsiders contribute to mistrust and secrecy, creating a reluctance to seek healthcare. Even when supportive adults are present, they may lack the tools to provide trauma-informed guidance. A lack of awareness about sexual exploitation among healthcare providers means early vulnerabilities often go unnoticed, and systems fail to address holistic victimization trajectories.

Many survivors reported challenges stemming from poverty, parental negligence, and the inability to access care independently. Psychologically, early trauma, including abuse or neglect, creates a pervasive distrust toward healthcare providers and a fear of disclosing abuse. Systemically, a lack of sexual exploitation of children awareness in healthcare settings contributes to an absence of trauma-informed care, leaving many survivors vulnerable and underserved (Wagner et al., 2024).

> I just felt like maybe because I moved around so much, I couldn't get personal enough like to trust a doctor. It was like a new doctor all the time, and then them doing physical exams and stuff like that would make me feel uncomfortable. **(Interview 21)**

During Exploitation

The barriers to healthcare become even more pronounced and multifaceted during the period of exploitation. Physical barriers are exacerbated by traffickers' control over transportation and finances, effectively preventing survivors from accessing medical services. Health neglect becomes normalized, and survivors may endure physical injuries or health issues without the possibility of receiving care. Psychologically, survivors experience compounded feelings of guilt, shame, and fear, which can manifest as hypervigilance and avoidance, making it difficult for them to trust healthcare providers . These feelings are often amplified by a pervasive sense of shame and stigma, particularly around their victimization and the exploitation experience itself. Many survivors internalize these feelings, believing they are undeserving of help, and may be reluctant to seek out care for fear of being judged or further stigmatized. This internalized stigma can make it challenging for survivors to engage with healthcare systems at all, even during periods of critical need.

While some survivors may not actively seek out care due to fear and shame, many still engage with the healthcare system in emergencies or for specific needs, such as family planning. Planned Parenthood clinics, for example, were often cited by survivors as places where they could access basic healthcare, such as birth control or screenings, However urgent or immediate health concerns typically prompted these visits Despite this, the ongoing trauma of exploitation, including feelings of worthlessness and fear of retribution, means that survivors may still feel disconnected from providers and hesitant to disclose the full scope of their experiences.

Systemic barriers, such as a lack of trauma-informed care and poor communication among healthcare providers, perpetuate the cycle of mistreatment. Survivors report feeling retraumatized by providers who lacked sensitivity to their experiences or who failed to recognize the signs of CSE. Fragmented communication between medical professionals forces survivors to repeatedly recount their trauma, deepening feelings of distrust and reinforcing the belief that they are not worthy of compassionate care (Wagner et al., 2024). This compounded stigma, both from within and from healthcare providers, serves to further isolate survivors from the care they desperately need during their time in captivity.

> They don't even know what questions to ask, and then I just give up trying to explain what I went through.**(Interview 11)**

After Exploitation

Although survivors continue to face substantial physical, psychological, and systemic barriers when attempting to access healthcare after exploitation has ended, this is the stage where we found survivors were most ready to address health concerns and seek healthcare. Yet the road to healthcare access remains fraught with obstacles that can hinder their ability to engage fully with the system. Financial constraints, logistical difficulties, and the continued trauma of exploitation complicate access to safe healthcare spaces. Survivors often face PTSD, shame, low self-worth, and a fear of being seen as a burden to providers, which can deter them from seeking care despite the recognition of its importance. Many survivors also struggle to balance the desire for validation with a deep fear of being judged or stigmatized by healthcare professionals, which can create significant emotional barriers to seeking care (Wagner et al., 2024).

In this context, the role of healthcare navigators becomes critical. Navigators can help survivors connect with providers who are trained in CSE and who understand the complex physical and psychological needs of people who survive CSE. By providing guidance, support, and advocacy, healthcare navigators help mitigate some of the systemic barriers survivors face, such as fragmented care systems and the lack of trauma-informed practices. Navigators can assist in identifying and establishing trust with providers who offer comprehensive care and can support the survivor in managing the emotional complexities of healthcare engagement. Building these supportive relationships through healthcare navigators can significantly improve the chances of survivors accessing consistent, high-quality care that addresses their holistic needs.

However, despite the importance of these interventions, survivors often encounter barriers that prevent them from following through with care. These barriers—such as ongoing stigmatization, inadequate follow-up, and providers' lack of understanding of exploitation experiences—can lead to frustration and disenchantment with the healthcare system. Negative past experiences, such as dismissive or retraumatizing encounters with providers, can have lasting effects, making survivors hesitant to engage with the system again. For example, some survivors reported that their attempts to seek help post-exploitation were thwarted by healthcare providers who failed to acknowledge the full scope of their needs or who stigmatized them for their past experiences, such as addiction or involvement in sex work. These negative encounters can result in survivors avoiding healthcare altogether, opting for self-care or alternative, sometimes less effective, forms of treatment.

In addition, many survivors are forced to navigate a fragmented healthcare system, often facing long waitlists or limited availability of trusted providers. These systemic challenges, along with the lingering fear of judgment or retraumatization, can prevent survivors from accessing the comprehensive care they need to heal. As noted by Wagner et al. (2024), survivors often rely on peer support networks and community advocates to help them navigate these barriers and foster trust with healthcare providers, which is essential for sustaining healthcare engagement and achieving better long-term health outcomes. However, without consistent and empathetic care, many survivors remain stuck in a cycle of disengagement, making it imperative for the healthcare system to address these barriers with a trauma-informed, survivor-centered approach.

> It took a long time to find someone who didn't treat me like I was broken. (Interview 10)

The barriers survivors face in accessing healthcare are complex, evolve, and are influenced by a combination of physical, psychological, and systemic factors. Interviews with adult survivors of CSE of children help us understand the critical need for trauma-informed healthcare systems that address the unique needs of CSE survivors at every stage of their journey. To improve healthcare access, it is crucial to incorporate the voices of survivors in the design of interventions, foster trust-building between survivors and healthcare providers, and ensure that systems are equipped to meet the specific needs of survivors of commercial sexual exploitation.

Conclusions and Recommendations

- Young people who experience CSE have numerous physical and mental health concerns at rates higher than the general population.
    - Over half of the sample reported frequent or severe headaches (51%), and just over half of the sample reported frequent insomnia (47%). Of the serious health conditions measured, asthma was most common, experienced by one-fourth of the sample (25%). A smaller proportion of the sample reported having any STD (10%) or specifically HIV (2%).
    - Most of the youth in this study reported experiencing adverse mental health conditions such as depression (61%) or anxiety (57%)
- Understanding the experiences and needs of CSE survivors is important for health care providers beyond identifying victimization. Understanding a patient's CSE experience should inform specific health-care and medical treatment plans
- During exploitation experiences, young people are primarily receiving healthcare from emergency health services and, to a lesser degree, clinics. Youth who experience CSE generally do not have strong preventive health-care networks during periods of exploitation.
- Reproductive health-care was an important concern for survey and interview respondents. Reproductive health services such as planned parenthood were a common place where young people sought healthcare, particularly during periods of exploitation. Changes nationally to reproductive health access have particularly negative implications for young people who experience exploitation.
- Similarly, substance use was higher among the population of young people who experienced CSE, and qualitative interviews with adult survivors of CSE clarified the need for understanding and responses to CSE that have a comorbid association with substance use. Qualitative interviews clarified that CSE survivors with substance use concerns face additional stigma associated with addiction that inhibits their disclosure of information that could be critical for their healthcare.
- The reluctance of CSE survivors to seek healthcare is heavily influenced by their past negative experiences with healthcare providers, particularly when they have felt disrespected and discriminated against. The adoption of trauma-informed approaches by practitioners helps mitigate these experiences.

Recommendations for Identification

- There is a significant need for medical professionals to receive training on CSE that is trauma-informed and grounded in the experiences of survivors. It is important that healthcare professionals better understand the reasons why survivors do not easily disclose exploitation and are knowledgeable about resources that may connect young people to trusted sources.
- Understanding that people experiencing CSE may initially present with other more visible or recognizable identities, such as homelessness or substance use disorder, may help practitioners better identify CSE victimization in young people.
- Health providers should have resource lists that can be provided to individuals who are suspected to be victims of CSE, particularly referrals or information about services in facilities that specialize or are trained in exploitation and trauma-informed care.
- Identification of CSE may be particularly important for clinics, reproductive health services and emergency rooms which are primary locations of care during exploitation identified by CSE survivors.
- Online health resources and health information should be accessible by CSE survivors (e.g., telehealth, app-based tools)—many may not present in ways that in-person providers can recognize and may instead seek information online.
- Screening tools for health-care providers are increasing, providers need to consider the implications of identification. Are healthcare providers and systems prepared to support young people who have experienced CSE, once identified? If not, screening procedures could result in more feelings of frustration and lack of trust on the part of

Recommendations to Better Meet Healthcare Needs

- The relationships that CSE survivors have with healthcare before, during, and after exploitation are critical to promoting or inhibiting their trust in healthcare professionals and willingness to disclose information about exploitation that might be critical to their care and to meeting their healthcare needs. As a result, pediatricians should be encouraged and rewarded for developing and modeling trusting, non-transactional relationships with young people to help set the foundation for future engagement with medical professionals.
- Healthcare navigators could be a significant addition to service provision for providers who serve young people experiencing CSE. Providers that have developed trusting relationships with survivors of CSE could utilize the support of healthcare navigators that help connect survivors with healthcare clinics or specific professionals who have strong knowledge and experience working with clients who have exploitation histories or comorbid substance use and exploitation histories. This could also include incorporating peer support programs in healthcare settings, where survivors with shared experiences can guide and support others navigating the system.
- CSE survivors need continuity of care, from initial interactions with emergency services to long-term management through community clinics and specialized trauma recovery programs. Too often, survivors have moments of healthcare stability that are interrupted by exploitation and other vulnerabilities. Anticipating the challenges of continuity of care and planning for disruption and re-engagement is critical for healthcare systems.

Recommendation for Research

- Future research needs to include measures of day-to-day health and wellness. Here, we focus on diagnoses and severe clinical problems (e.g, chronic pain, respiratory problems), but the study's findings on self-rated health and the qualitative interview data support more holistic approaches to health.
- Future work needs to use novel recruitment methods to reach underserved or otherwise missed youth. Researchers must also be aware of agency strain and the ability to facilitate research particularly post-COVID. Such research plans require partnerships and resources to support providers who assist with recruitment and other phases of the research process.
- Future research needs to investigate how race, gender identity, sexual orientation, disability status, and socioeconomic factors intersect with other forms of exploitation experiences to affect health outcomes and access to care.

The findings of this study point to the need for more research in a few key areas:

Survivors' reproductive and sexual health, particularly during and after exploitation. Research should explore how changes in national policies (e.g., access to contraception or abortion) disproportionately affect CSE survivors and their ability to seek necessary reproductive healthcare.

Co-occurrence of substance use and exploitation to better understand how addiction complicates health outcomes and access to care. This research should include interventions aimed at reducing stigma and addressing the dual stigma of addiction and exploitation in healthcare settings.

Effectiveness of trauma-informed training programs for healthcare providers in identifying and supporting CSE survivors. Assess whether these programs lead to measurable improvements in survivors' healthcare engagement, experiences, and outcomes.

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Appendix A

Survey and Interview Distress Protocol

1. **Identification of Distress:**

- Throughout the study, if participants express distress, concerns about suicidality, or report experiences of maltreatment or neglect by a caretaker, immediate action will be taken.
- Upon completion of the main survey, a separate survey will automatically generate to inquire if participants felt distressed or concerned for their safety during or after taking the survey.

2. **Offer of Support:**

- Participants expressing distress or concerns will be offered a follow-up call from a member of the research team who has a clinical psychological license.
- The purpose of the follow-up call is to assist participants in connecting to appropriate services for support.
- Participants will have the option to indicate whether they would like a follow-up call at the end of the survey.

3. **Confidentiality and Disclosure:**

- Participants will be reminded that if they disclose intent to harm themselves or others during the follow-up call, the research team may need to disclose that information to the proper authorities for their safety.
- Confidentiality will be maintained to the fullest extent possible, with disclosures made only when necessary to prevent harm.

4. **Remuneration Process:**

- Following the distress survey, all respondents will be directed to a final survey to provide details on the best method for sending them their gift card (via text, email, or regular mail).
- This ensures a seamless transition for participants from the main survey to the distress survey and finally to the remuneration process.

5. **Data Management:**

- The main survey, distress survey, and remuneration survey will be housed in three separate databases on Qualtrics.
- Data management protocols will be in place to ensure the security and confidentiality of participant information.
- Access to these databases will be limited to authorized research personnel only.

6. **Participant Welfare:**

- Participant welfare is of paramount importance. The research team will prioritize the well-being of participants throughout the study.
- Any concerns raised by participants will be taken seriously, and appropriate actions will be taken to address them promptly and effectively.

7. **Ethical Considerations:**

- This distress protocol is designed in accordance with ethical guidelines to ensure the safety and well-being of participants.
- The protocol will be reviewed and approved by the relevant institutional review board (IRB) or ethics committee before implementation.

8. **Training of Research Team:**

- All members of the research team involved in participant interactions will receive training on how to handle situations of distress and suicidality sensitively and effectively.
- Training will include protocols for offering support, maintaining confidentiality, and escalating concerns when necessary.

9. **Documentation and Reporting:**

- Any instances of participant distress or concerns will be documented and reported according to institutional guidelines and regulatory requirements.
- This includes reporting requirements for instances where participants disclose intent to harm themselves or others.

10. **Continuous Monitoring and Improvement:**

- The distress protocol will be subject to ongoing monitoring and evaluation to ensure its effectiveness in addressing participant welfare concerns.
- Feedback from participants will be solicited to identify areas for improvement and refinement of the protocol.

Youth who are recruited from online advertising platforms will be given national help-line phone numbers (National Youth Crisis Hotline 1-800-662-HELP (4357); Substance Abuse and Mental Health Services Administration; Crisis Text Line, https:/www.crisistextline.org/) as well being connected to support through the same distress protocol utilized for individual referred by partner agencies if they need additional support following survey administration

Appendix B: Survey Recruitment Materials

Protocol for Agency recruitment

Step 1

Search for agencies and local places that include youth as served populations. This may include emergency shelters, homeless shelters, etc. Find contact information for the site including email/phone number.

Step 2

When possible, email agency/director using publicly available contact information using the following template:

Hello ____,

A research team from Northeastern University and funded by the National Institute of Justice are conducting a survey research study with young people who have experienced sex trafficking at some time in their lifetimes. We are reaching out to your agency due to the fact you serve the community and may be assisting youth who are at heightened risk for exploitation, and we want to make sure we include their experiences.

We are not asking your staff to identify youth and recruit them into our study. Instead, we are asking to leave information with your organization to make it available to the people you serve so they can learn about it. We are also happy to be available to facilitate access to the survey by coming to your agency in person with tablets to assist anyone wishing to take the survey.

We are recruiting people:

- ages 13-24 years old,
- who are fluent in either English or Spanish
- can safely complete an online survey, and
- ever experienced sex trafficking, commercial sexual exploitation, or at high risk of these experiences in the USA.

The survey takes approximately 30 minutes to complete and does not ask any explicit questions about the exploitative or trafficking experience. The purpose of the survey is to find out more about health status, use of health care, and health care-related needs. This research is IRBapproved.Participants will receive a $30 Amazon or Target gift card.

We have attached the project flyer for the survey in case you have any youth who may want to participate. Additionally, we have a PDF PowerPoint with more detail for you to review. Please let me know if you are interested in helping us and when may be a good time for us to stop by your organization.

Best,
Youth Health Study Team

Northeastern University with our partners at Boston University, University of New Hampshire, and RTI International are conducting interviews on the experiences of youth in the United States.

781-856-7953 youthhealthstudy@gmail.com IRB#:21-04-06

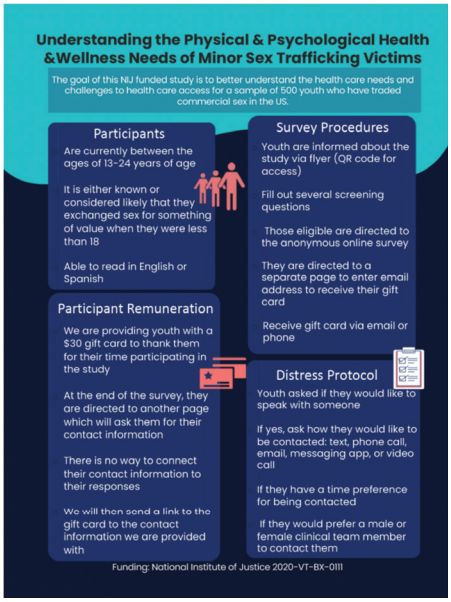
Step 3:

Bring the same materials in person to agencies if publicly available address can be found. Explain that an email was also sent letting them know more about the research team and the project goals. If they allow, leave flyers with them to post or hand them out as they see fit.

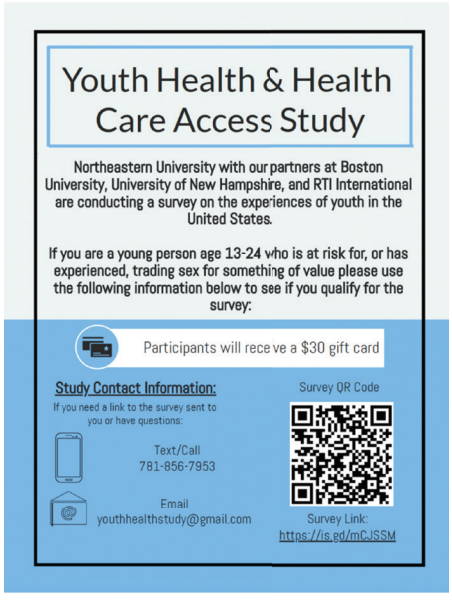
Step 4:

After one to two weeks follow up if you have not heard from the agency and were not successful at reaching them in person. If they do respond before visiting, ask if you can meet in person or online. This is a great way to find out if there are group sessions with youth, and let them know we can come with flyers so youth can fill them out while you are there.

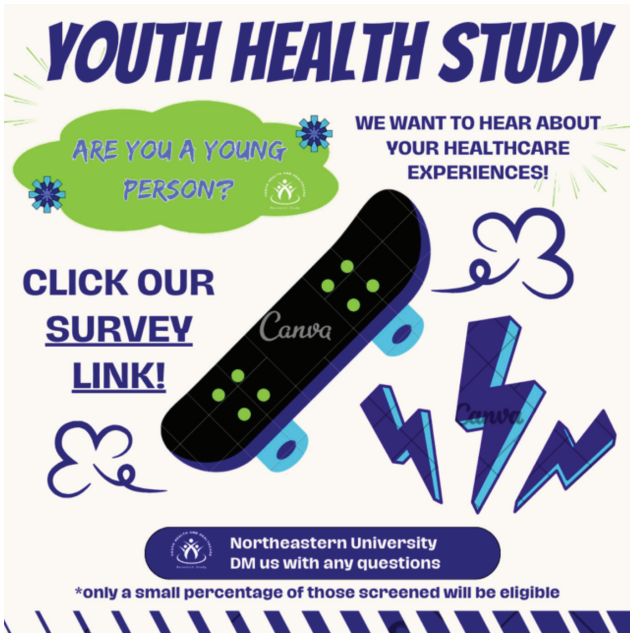
Agency Protocol – Two-Pager- for Survey Recruitment



Survey Flyer for Agencies, provided in English and Spanish



Survey Meta Advertisement Examples



Appendix C

Survey Consent Agreement

Background

We are conducting a research study called the "Youth Health and Health Care Access Study" for Northeastern University School of Criminology and Criminal Justice with our partners at Boston University, University of New Hampshire, and RTI International on the experiences of minors in the United States. The study is being supported by the National Institute of Justice. The purpose of this study is to understand the health concerns and experiences accessing health care services for youth who have traded sex, sexual images or sexual acts for money, food, a place to stay, drugs, gifts, transportation or favors. This is an important study that will give us a better understanding of the kinds of problems that youth face and help us to better plan for their needs regarding physical and psychological wellness.

About the Survey

The survey questions will ask about who you are (age, grade you are in), some of your past experiences, family history, helpseeking efforts, and mental/physical health. The survey will take approximately 30 minutes to complete. Your part in this study is anonymous to the researcher(s). Your name or who you are will not be linked to the answers that you give, however, because of the nature of web-based surveys, it is possible that respondents could be identified by some of the electronic information associated with the response. Neither the researcher nor anyone involved with this survey will be capturing that information. Any reports or publications based on this research will use only group data and will not identify you or any individual as being affiliated with this project.

The data you provide will be put together with that of 500 other youth participants and will only be used for research purposes. We will not use your name or any personal information about you. You do not have to participate if you do not want to. Even if you begin the study, you do not have to answer every question and there is no penalty for skipping any questions that make you uncomfortable. If you chose to participate, we will provide you with a gift card for $30 as a token of our appreciation.

There is no direct benefit from participating in this study. While it is unlikely that you will experience any risk from participating, some of the questions might be upsetting since they deal with sensitive topics. If that is the case, let us know and we can provide you information about mental health services in the local area.

Your Rights

According to the federal law (42 USC 3789g) that applies to this project, the things you say, write, or respond to during the research study must be kept private by the researcher and can only be used for research and statistical purposes. The National Institute of Justice grants a privacy certificate that applies to the research data and states that the researchers can only use the data they collect for research purposes and cannot publish or use any personally identifying information in reports. Your information cannot be used for legal, financial, or administrative purposes without your explicit permission. The researcher will not link your name to the data and your name will never be used in any publication or presentation on this research. We store all data in locked files and password protected computers. The data will also be kept at the National Archive of Criminal Justice Data after removing all personally identifying information.

Contact Us

We want you to completely understand the project you are participating in. If you have questions about the survey feel free to contact the study investigators, Dr. Amy Farrell (617-373-7439) or Dr. Carlos A. Cuevas (617-373-7462). In addition, if you have questions or concerns about the project you may contact Nan Clark Regina, Director, Human Subjects Research Protection, Northeastern University, 177 Huntington Ave, 560-177, Boston, MA 02115, phone: 617-373-7570.

If you would like to speak to someone about how you are feeling, you can reach a mental health professional at the numbers below:

Substance Abuse and Mental Health Services Administration: 1-800-662-HELP(4357)

Authorization: I have read and understood the information about the "Youth Health and Health Care Access" research study. I understand that my participation in this research study is completely voluntary.

☐ Yes (1) ☐ No (2)

I certify that I am taking this survey once, and I will not send this survey to anyone else

☐ Yes (1) ☐ No (2)

You have been asked permission to be in the "Youth Health and Health Care Access" research study. Federal law that applies to this study (42 USC 3789g) says that the researchers can't tell anyone what you say in a way that gives away who you are (for example, giving a name) without your permission and in some cases the permission of a parent or guardian. If upon completion of the survey you choose to have a follow-up call with the researchers and you disclose that you plan to hurt herself or someone else, or if they suspect that you are experiencing abuse or neglect, the researchers would request your permission to tell the proper authorities. The chances that such a report will ever be made are very low, but it is possible. By signing this form, you are saying that you understand that the researchers can tell the proper authorities if they think you may plan to hurt yourself or someone else, or if they suspect that you are experiencing abuse or neglect.

☐ Yes (1) ☐ No (2)

Please ensure you are in a safe, private place to take this survey.

DE_1 How old are you?

☐ 13 (4) ☐ 15 (6) ☐ 17 (8) ☐ 19 (10) ☐ 21 (12) ☐ 23 (14)
☐ 14 (5) ☐ 16 (7) ☐ 18 (9) ☐ 20 (11) ☐ 22 (13) ☐ 24 (15)

DE_2 Are you of Hispanic or Latino/Latina/Latinx origin?

☐ Yes (1) ☐ No (2)

DE_3 Do you consider yourself *(Select all that apply)*

☐ White (1)
☐ Black/African American (2)
☐ Hispanic/Latino origin (3)
☐ Asian/Asian American (4)
☐ Native Hawaiian or Other Pacific Islander (5)
☐ Mixed/Multiracial (6)
☐ Other (7) _____

DE_4 What grade are you in now?

(If you are on summer vacation, what grade will you be starting?)

- ☐ 6th (1)
- ☐ 7th (2)
- ☐ 8th (3)
- ☐ 9th (4)
- ☐ 10th (5)
- ☐ 11th (6)
- ☐ 12th (7)
- ☐ College or post-graduate school (8)
- ☐ Another type of school not listed (9)
- ☐ Not in school (10)

DE_5 If not in school, what is the highest level of education that you have completed?

- ☐ Elementary school (1)
- ☐ Middle school or junior high school (2)
- ☐ High school (graduate or certificate) (3)
- ☐ Associate's degree (2-year post-graduate) (4)
- ☐ College degree (4-year) or above (6)
- ☐ Other (8) _____

DE_6 Where have you lived in the last 6 months? *(Check all that apply.)*

- ☐ Parent or Guardian (10)
- ☐ Other Relatives (14)
- ☐ Friends (15)
- ☐ Intimate Partner/Significant Other/Spouse (17)
- ☐ Rental (apartment/home) I pay for (23)
- ☐ With Roommates (22)
- ☐ Foster Care (11)
- ☐ Residential Facility (12)
- ☐ Group Home (13)
- ☐ Shelter (16)
- ☐ Couch Surfing (18)
- ☐ Detention Facility/Jail/Prison(19)
- ☐ I do not have housing Other (21)
- ☐ Other (21) _____

DE_7 Which of the following best describes your gender identity? *(Please check all that apply.) Gender refers to cultural values (roles, behaviors, activities, and attributes) that a society associates with males and females. Gender also refers to how one defines oneself. For many people, there isn't a difference between these terms, but for some people, their gender is different from their biological sex.*

- ☐ Male (1)
- ☐ Female (2)
- ☐ Female-to-Male (FTM) /Transgender Male/ Trans Man (3)
- ☐ Male-to-Female (MTF)/Transgender Female/ Trans Woman (4)
- ☐ Genderqueer/non-binary/pangender (5)
- ☐ If not listed, please specify in your own words: (6) _____
- ☐ I do not understand this question (7)

DE_8 Which of these commonly used terms would you use to describe your sexual identity or sexual orientation? *(Please check all that apply.)*

- ☐ Gay (1)
- ☐ Lesbian (2)
- ☐ Bisexual (3)
- ☐ Pansexual (4)
- ☐ Straight/Heterosexual (5)
- ☐ Queer (6)
- ☐ Asexual (7)
- ☐ Questioning (8)
- ☐ Unsure (9)
- ☐ Other, please specify (10) _____

DE_9 Are you currently employed?

Yes (1) No (2)

DE_10 Is your job:

- ☐ Full time (1)
- ☐ Part time (2)
- ☐ Seasonal (e.g., summer job) (3)
- ☐ Currently not working (4)

DE_11 Were you born in the U.S?

☐ Yes (1) ☐ No (2)

DE_12 In what state do you currently live?

▼ Alabama (7) ... Wyoming (56)

DE_13 Do you live in:

- ☐ A city or urban area (1)
- ☐ A suburban area (2)
- ☐ A small town or rural area (3)
- ☐ Not sure (4)

DE_14 Do you currently have a spouse, intimate partner, or romantic partner that you live with?

- ☐ Yes (1)
- ☐ No (2)
- ☐ Don't know (3)
- ☐ Choose not to answer (4)

DE_15 How would you describe your financial situation **while growing up**?

- ☐ Always stressful (1)
- ☐ Often stressful (2)
- ☐ Sometimes stressful (3)
- ☐ Rarely stressful (4)
- ☐ Never stressful (5)

DE_16 How would you describe your financial situation **right now**?

- ☐ Always stressful (1)
- ☐ Often stressful (2)
- ☐ Sometimes stressful (3)
- ☐ Rarely stressful (4)
- ☐ Never stressful (5)

SECTION 1

Thank you for telling us more about who you are. The next set of questions are going to ask you about some of the experiences you have had in your past. As a reminder, your answers will not be shared with anyone.

CSEC_0 ***When answering the following questions, please remember your answers are not linked to you in any way.***

CSEC_1 What is the organization that referred you to the survey helping you with? *(Check all that apply.)*

- ☐ Finding or working with a mentor/survivor mentor (23)
- ☐ Safety planning (16)
- ☐ Healthy relationships (22)
- ☐ Sexual health (20)
- ☐ Information about sexual exploitation (18)
- ☐ Parental/guardian relationships (6)
- ☐ Finding housing (8)
- ☐ Past abuse (physical/emotional/sexual) (9)
- ☐ School problems (10)
- ☐ Finding a job/saving money (11)
- ☐ Assisting with the courts/probation/police/legal issues (12)
- ☐ Internet safety (14)
- ☐ Going to appointments (17)
- ☐ Addressing substance abuse (dealing with alcohol or drugs) (5)
- ☐ Self-esteem building (19)
- ☐ Other (21)

CSEC_2 How old were you when you were first connected with the organization that told you about this survey? [*Your best guess is fine]*

_____

CSEC_3 Have you ever exchanged sex or sexual acts for money, food, a place to stay, drugs, gifts, transportation or favors?

☐ Yes (1) ☐ No (2)

CSEC_4 Have you ever been coerced, forced, or tricked into exchanging sex for money, food, a place to stay, drugs, gifts, transportation or favors? *(You may have heard this be called "commercial sexual exploitation" or "sex trafficking" or "being in the life")*

☐ Yes (1) ☐ No (2)

CSEC_5 How old were you the first time you exchanged sex, sexual acts for money, food or a place to stay, drugs, gifts, transportation or favors?

Age: (1) _____ ☐ Not applicable or I have not exchanged sex or sexual acts for anything of value (2)

CSEC_6 Have you ever stripped or engaged in naked or exotic dancing for money, or because someone forced or coerced you to do it?

☐ Yes (1) ☐ No (2)

CSEC_7 Have you ever been in videos or photos that are sexually explicit *(i.e. pornography)* for money, or because someone forced or coerced you to do it?

☐ Yes (1) ☐ No (2)

ACES_1 Have you ever lived with a parent/caregiver who went to jail/prison?

☐ Yes (1) ☐ No (2)

ACES_2 Have you ever felt unsupported, unloved and/or unprotected?

☐ Yes (1) ☐ No (2)

ACES_3 Have you ever lived with a parent/caregiver who had mental health issues? *(for example, depression, schizophrenia, bipolar disorder, PTSD, or an anxiety disorder)*

☐ Yes (1) ☐ No (2)

ACES_4 Has a parent/caregiver ever insulted, humiliated, or put you down?

☐ Yes (1) ☐ No (2)

ACES_5 Has your biological parent or any caregiver ever had, or currently has a problem with too much alcohol, street drugs or prescription medications use?

☐ Yes (1) ☐ No (2)

ACES_6 Have you ever lacked appropriate care by any caregiver? *(for example, not being protected from unsafe situations, or not being cared for when sick or injured even when the resources were available)*

☐ Yes (1) ☐ No (2)

ACES_7 Have you ever seen or heard a parent/caregiver being screamed at, sworn at, insulted or humiliated by another adult? Or have you ever seen or heard a parent/caregiver being slapped, kicked, punched, beaten up or hurt with a weapon?

☐ Yes (1) ☐ No (2)

ACES_8 Has any adult in the household often or very often pushed, grabbed, slapped or thrown something at you? Or has any adult in the household ever hit you so hard that you had marks or were injured? Or has any adult in the household ever threatened you or acted in a way that made you afraid that you might be hurt?

☐ Yes (1) ☐ No (2)

ACES_9 Have you ever experienced sexual abuse? *(for example, has anyone touched you or asked you to touch that person in a way that was unwanted, or made you feel uncomfortable, or anyone ever attempted or actually had oral, anal, or vaginal sex with you)*

☐ Yes (1) ☐ No (2)

ACES_10 Have there ever been significant changes in the relationship status of your caregiver(s)? *(for example, a parent/caregiver got a divorce or separated, or a romantic partner moved in or out)*

☐ Yes (1) ☐ No (2)

ACES_11 Have you ever seen, heard, or been a victim of violence in your neighborhood, community or school? *(for example, targeted bullying, assault or other violent actions, war or terrorism)*

☐ Yes (1) ☐ No (2)

ACES_12 Have you experienced discrimination? *(for example, being hassled or made to feel inferior or excluded because of their race, ethnicity, gender identity, sexual orientation, religion, learning differences or disabilities)*

☐ Yes (1) ☐ No (2)

ACES_13 Have you ever had problems with housing? *(for example, being homeless, not having stable place to live, moved more than two times in a six-month period, faced eviction or foreclosure, or had to live with multiple families or family members)*

☐ Yes (1) ☐ No (2)

ACES_14 Have you ever worried that you did not have enough food to eat or that food would run out before you or your parent/caregiver could buy more?

☐ Yes (1) ☐ No (2)

ACES_15 Have you ever been separated from your parent or caregiver due to foster care or immigration?

☐ Yes (1) ☐ No (2)

ACES_16 Have you ever lived with a parent/ caregiver who had a serious physical illness or disability?

☐ Yes (1) ☐ No (2)

ACES_17 Have you ever lived with a parent or caregiver who died?

☐ Yes (1) ☐ No (2)

ACES_18 Have you ever been detained, arrested or incarcerated?

☐ Yes (1) ☐ No (2)

ACES_19 Have you ever experienced verbal or physical abuse or threats from a romantic partner? *(from example, a boyfriend or girlfriend)*

☐ Yes (1) ☐ No (2)

ACES_20 Have you ever lived with a parent/caregiver who expressed suicidal thoughts, attempted suicide, or died by suicide? ☐ Yes (1) ☐ No (2)

CYBER_0 ***The next section of questions will ask about your experiences with technology. Please remember your answers are not linked to you in any way. As a reminder, your answers to these questions will not be shared with anyone.***

Cyber Has anyone (except your parent or guardian) done the following when you did not want them to...	Yes (1)	No (2)
Tracked your location with a phone, app, GPS device or other technology (1)	○	○
Monitored or spied on you using spyware (2)	○	○
Monitored or spied on you using cameras, drones or a "bugging" or eavesdropping device, or other technology (3)	○	○
Without your permission or knowledge, accessed any of your online accounts or social media (4)	○	○
Monitored online information posted by you or about you, in a way that made you feel unsafe (5)	○	○
Made you give them access to your phone, computer, or other electronic device (6)	○	○
Used your computer, phone or other electronic device to get information about you or other people without your permission (7)	○	○
Checked your sent/received email or message histories, including text messages without your permission (8)	○	○
Checked your phone call histories without your permission (9)	○	○
Changed the password to your online accounts or social media (10)	○	○
Pretended to be you online in order to deceive others or gather information about you (11)	○	○
Pretended to be another person online in order to deceive you, or others, or gather information about you (12)	○	○
Distributed, or posted online, an intimate or sexual image of you without your consent (13)	○	○
Sent you threatening, frightening, harassing or aggressive messages via email, text, social media, or another online platform (14)	○	○
Created new accounts to continue to harass you online after you blocked them from contacting you (15)	○	○
Contacted you repeatedly via email, text, social media, or another online platform beyond what you felt comfortable with (16)	○	○
Encouraged other people to "troll", attack, or harass you online (17)	○	○

Cyber Has anyone (except your parent or guardian) done the following when you did not want them to...	Yes (1)	No (2)
Damaged, or tried to damage, your reputation by posting false or negative information about you (18)	○	○
Shared a doctored or altered image, video, or audio recording of you *(sometimes called deep fakes)* (19)	○	○
Exposed private information about you to other people, including your name, address, contact information, or location *(sometime called doxing)* (20)	○	○
Threatening to make or made a prank call to emergency services in an attempt to dispatch a large number of armed police officers to your residence *(sometimes called swatting)* (21)	○	○
Used or attempting to use your personal information for some fraudulent purpose, including identity theft (22)	○	○

CYBER_0 ***If any of these questions upset you, please remember that you will have the opportunity to have someone from the research team reach out to you after the survey. Your answers to these questions will not be connected to your request to talk to someone.***

MARSHA_1 ***Think about all of the people you were dating, hooking up with, or in a romantic relationship with in the past year. Answer the following questions thinking about these people.***

MARSHA_2 They made me feel like I could not break up with them or get out of the relationship

☐ Yes (1) ☐ No (2) ☐ Don't Know (3) ☐ Not applicable/Not in a relationship (4)

MARSHA_3 They yelled, screamed, or swore at me

☐ Yes (1) ☐ No (2) ☐ Don't Know (3) ☐ Not applicable/Not in a relationship (4)

MARSHA_4 They slapped, pushed, shoved, or shook me

☐ Yes (1) ☐ No (2) ☐ Don't Know (3) ☐ Not applicable/Not in a relationship (4)

MARSHA_5 They forced or pressured me to take nude or almost nude photos or videos

☐ Yes (1) ☐ No (2) ☐ Don't Know (3) ☐ Not applicable/Not in a relationship (4)

MARSHA_6 They looked through my phone or other device at my texts, social media, or apps, when I did not what them to do that

☐ Yes (1) ☐ No (2) ☐ Don't Know (3) ☐ Not applicable/Not in a relationship (4)

MARSHA_7 They asked me to give them one or more of my passwords

☐ Yes (1) ☐ No (2) ☐ Don't Know (3) ☐ Not applicable/Not in a relationship (4)

DRUG_0 ***The next section of questions will ask about alcohol and drug consumption. Please remember your answers are not linked to you in any way. As a reminder, your answers to these questions will not be shared with anyone.***

DRUG_1 **The next 3 questions ask about drinking alcohol. This includes drinking beer, wine, wine coolers, and liquor such as rum, gin, vodka, or whiskey. For these questions, drinking alcohol does not include drinking a few sips of wine for religious purposes.**

1 **DRUG_2** How old were you when you had your first drink of alcohol other than a few sips?
(Your best guess is fine)

- ☐ I have never had a drink of alcohol other than a few sips (2)
- ☐ 8 years old or younger (3)
- ☐ 9 or 10 years old (4)
- ☐ 11 or 12 years old (5)
- ☐ 13 or 14 years old (6)
- ☐ 15 or 16 years old (7)
- ☐ 17 years or older (8)

2 **DRUG_3** During the past 30 days, on how many days did you have at least one drink of alcohol?

- ☐ 0 days (1)
- ☐ 1 or 2 days (2)
- ☐ 3 to 5 days (3)
- ☐ 6 to 9 days (4)
- ☐ 10 to 19 days (5)
- ☐ 20 to 29 days (6)
- ☐ All 30 days (7)

3 **DRUG_4** During the past 30 days, on how many days did you have 4 or more drinks of alcohol in a row, that is, within a couple of hours?

- ☐ 0 days (1)
- ☐ 1 day (2)
- ☐ 2 days (3)
- ☐ 3 to 5 days (4)
- ☐ 6 to 9 days (5)
- ☐ 10 to 19 days (6)
- ☐ 20 or more days (7)

DRUG_5 **The next 4 questions ask about marijuana use. Marijuana also is called pot, weed or cannabis.**

1 **DRUG_6** During your life, how many times have you used marijuana?

- ☐ 0 times (1)
- ☐ 1 or 2 times (2)
- ☐ 3 to 9 times (3)
- ☐ 10 to 19 times (4)
- ☐ 20 to 39 times (5)
- ☐ 40 to 99 times (6)
- ☐ 100 or more times (7)

DRUG_7 How old were you when you tried marijuana for the first time?

- ☐ I have never tried marijuana (1)
- ☐ 8 years old or younger (2)
- ☐ 9 or 10 years old (3)
- ☐ 11 or 12 years old (4)
- ☐ 13 or 14 years old (5)
- ☐ 15 or 16 years old (6)
- ☐ 17 years or older (7)

DRUG_8 During the past 30 days, how many times did you use marijuana?

- ☐ 0 times (1)
- ☐ 1 or 2 times (2)
- ☐ 3 or 9 times (3)
- ☐ 10 or 19 times (4)
- ☐ 20 to 39 times (5)
- ☐ 40 or more times (6)

DRUG_9 When you were exchanging sex or sexual acts for anything of value how often did you use marijuana or cannabis?

- ☐ Every day (1)
- ☐ Once a week (2)
- ☐ Once a month (3)
- ☐ Once a year (4)
- ☐ Never (5)
- ☐ Not applicable or I have not exchanged sex or sexual acts for anything of value (6)

DRUG_10 The next 2 questions asks about the use of prescription pain medicine without a doctor's prescription or differently than how a doctor told you to use it. For this question, count drugs such as codeine, Vicodin, OxyContin, Hydrocodone, and Percocet.

DRUG_11 During your lifetime, how many times have you taken prescription pain medicine without a doctor's prescription or differently that how a doctor told you to use it?

- ☐ 0 times (1)
- ☐ 1 or 2 times (2)
- ☐ 3 to 9 times (3)
- ☐ 10 to 19 times (4)
- ☐ 20 to 39 times (5)
- ☐ 40 or more times (6)

DRUG_12 When you were exchanging sex or sexual acts for anything of value how often did you use prescription pain medicine without a doctor's prescription or different than how a doctor told you to use it? *(Choose the one that fits the best)*

- ☐ Every day (1)
- ☐ Once a week (2)
- ☐ Once a month (3)
- ☐ Once a year (4)
- ☐ Never (5)
- ☐ Not applicable or I have not exchanged sex or sexual acts for anything of value (6)

DRUG_13 The next 6 questions ask about other drugs.

1 **DRUG_14** During your life, how many times have you used any form of cocaine, including powder, crack, or freebase?

- ☐ 0 times (1)
- ☐ 1 or 2 times (2)
- ☐ 3 to 9 times (3)
- ☐ 10 to 19 times (4)
- ☐ 20 to 39 times (5)
- ☐ 40 or more times (6)

2 **DRUG_15** During your life, how many times have you sniffed glue, breathed the contents of aerosol spray cans, or inhaled any paints or sprays to get high?

- ☐ 0 times (1)
- ☐ 1 or 2 times (2)
- ☐ 3 to 9 times (3)
- ☐ 10 to 19 times (4)
- ☐ 20 to 39 times (5)
- ☐ 40 or more times (6)

3 **DRUG_16** During your life, how many times have you used heroin *(also called smack, junk, brown, or China White)*?

- ☐ 0 times (1)
- ☐ 1 or 2 times (2)
- ☐ 3 to 9 times (3)
- ☐ 10 to 19 times (4)
- ☐ 20 to 39 times (5)
- ☐ 40 or more times (6)

4 **DRUG_17** During your life, how many times have you used methamphetamines *(also called speed, crystal meth, crank, ice, or meth)*?

- ☐ 0 times (1)
- ☐ 1 or 2 times (2)
- ☐ 3 to 9 times (3)
- ☐ 10 to 19 times (4)
- ☐ 20 to 39 times (5)
- ☐ 40 or more times (6)

5 **DRUG_18** During your life, how many times have you used ecstasy *(also called MDMA)*?

- ☐ 0 times (1)
- ☐ 1 or 2 times (2)
- ☐ 3 to 9 times (3)
- ☐ 10 to 19 times (4)
- ☐ 20 to 39 times (5)
- ☐ 40 or more times (6)

6 **DRUG_19** During your life, how many times have you used a needle to inject any illegal drug into your body?

- ☐ 0 times (1)
- ☐ 1 time (2)
- ☐ 2 or more times (3)

DRUG_20 The next 3 questions ask about electronic vapor products, such as Juul, Vuse, MarkTen, and blu. Electronic vapor products include e-cigaretts, vapes, vape pens, e-cigars, e-hookas, hookah pens, and mods.

1 **DRUG_21** Have you ever used an electronic vapor product?

- ☐ Yes (1)
- ☐ No (2)

2 **DRUG_22** During the past 30 days, on how many days did you use an electronic vapor product?

- ☐ 0 days (1)
- ☐ 1 to 2 days (2)
- ☐ 3 to 5 days (3)
- ☐ 6 to 9 days (4)
- ☐ 10 to 19 days (5)
- ☐ 20 to 29 days (6)
- ☐ All 30 days (7)

3 **DRUG_23** During the past 30 days, on the days you smoked, how many cigarettes did you smoke per day?

- ☐ I did not smoke cigarettes during the past 30 days (1)
- ☐ Less than 1 cigarette per day (2)
- ☐ 1 cigarette per day (3)
- ☐ 2 to 5 cigarettes per day (4)
- ☐ 6 to 10 cigarettes per day (5)
- ☐ 11 to 20 cigarettes per day (6)
- ☐ More than 20 cigarettes per day (7)

ISOL1 How often do you feel that you lack companionship?

- ☐ Hardly ever (1)
- ☐ Some of the time (2)
- ☐ Often (3)

ISOL2 How often do you feel left out?

- ☐ Hardly ever (1)
- ☐ Some of the time (2)
- ☐ Often (3)

ISOL3 How often do you feel isolated from others?

- ☐ Hardly ever (1)
- ☐ Some of the time (2)
- ☐ Often (3)

SECTION 2

Thank you for telling us about your experiences. The following set of questions are going to ask you about your history with medical care, including how you were treated by health professionals.

DISC_1 When receiving health care treatment, how often do the following things happen to you because of your **race, ethnicity, color, sexual orientation, disability status, gender identity, immigration status, or experiences with trading sex for something of value?**

	Never (1)	Rarely (2)	Sometimes (3)	Most of the time (4)	Always (5)
You are treated with less courtesy than other people (1)	○	○	○	○	○
You are treated with less respect than other people (2)	○	○	○	○	○
You receive poorer service than others (3)	○	○	○	○	○
A doctor or nurse acts as if he or she thinks you are not smart (4)	○	○	○	○	○
A doctor or nurse acts as if he or she is afraid of you (5)	○	○	○	○	○
A doctor or nurse acts as if he or she is better than you (6)	○	○	○	○	○
You feel like a doctor or nurse is not listening to what you were saying (7)	○	○	○	○	○

DISC_2 Based on the questions above, which specific parts of your identity do you believe were related to the discrimination youfaced when receiving health care treatment? *(Please select **all** that apply.)*

- ☐ Race (1)
- ☐ Ethnicity (2)
- ☐ Color (3)
- ☐ Sexual Orientation (4)
- ☐ Disability Status (5)
- ☐ Gender Identity (6)
- ☐ Immigration Status (7)
- ☐ Experience trading sex for something of value (8)
- ☐ I have never been discriminated against (9)

HCU_1 As far as you know, is your health care covered by insurance?

Yes (1) No (2) I don't know (3)

?

HCU_2 If yes, are you listed on your parent's or guardian's insurance, or a policy with your spouse?

Yes (1) No (2)

?

HCU_3 However you get your health insurance, is it:

- ☐ A plan purchased through on employer or union (1)
- ☐ A plan that you buy on your own (2)
- ☐ Medicare, Medicaid, or some other state or federal program (3)
- ☐ Some other source (4)
- ☐ Do not know (5)

HCU_4 In the last 12 months how many times did you go to a doctor's office, clinic or health center to get care for yourself? *(Do not count trips to the emergency department or a mental health therapist)*

Number of visits: (1) _____

HCU_5 About how long has it been since you last visited a dentist for a routine checkup or teeth cleaning?

- ☐ Within the past year (1)
- ☐ Within the past 2 years (2)
- ☐ 3-5 years ago (3)
- ☐ More than 5 years ago (4)
- ☐ Never (5)

HCU_6 Is there a place that you usually go when you are physically sick or need advice about your health?

- ☐ No (1)
- ☐ Yes, one place (2)
- ☐ Yes, there is more than one place (3)
- ☐ Unknown (4)

HCU_7 In the last 12 months, have you participated in individual, group, or family therapy?

☐ Yes (1) ☐ No (2)

HCU_8 In the last 12 months, have you been prescribed psychiatric medication by a psychiatrist or doctor?

☐ Yes (1) ☐ No (2)

HCU_9 In the last 12 months, have you used a partial or day hospitalization service?

☐ Yes (1) ☐ No (2)

HCU_10 In the last 12 months, have you been admitted to an inpatient unit for mental health or psychiatric reasons?

- ☐ Yes, voluntarily (you agreed to it) (1)
- ☐ Yes, involuntarily (you did not agree but were made to stay) (2)
- ☐ No (3)

HCU_11 In the last 12 months, how many times have you been to an emergency room because you were experiencing a health problem?

Times: (1) _____

HCU_12 **The next 6 questions ask specifically about the time when you were exchanging sex or sexual acts for money, food, a place to stay, drugs, gifts, transportation or favors.**

1 **HCU_13** When you were exchanging sex or sexual acts for anything of value did you ever go to an emergency room or urgent care facility for medical attention?

☐ Yes (1) ☐ No (2) ☐ Not applicable or I have not exchanged sex or sexual acts for anything of value (3)

2 **HCU_14** When you were exchanging sex or sexual acts for anything of value did you ever go to see a doctor in a setting other than an emergency room or urgent care setting?

☐ Yes (1) ☐ No (2) ☐ Not applicable or I have not exchanged sex or sexual acts for anything of value (3)

3 **HCU_15** Please describe what type of medical care you received while you were exchanging sex or sexual acts for anything of value *(write "NA" if not applicable):*

_____

4 **HCU_16** While you were exchanging sex or sexual acts for anything of value, were you ever admitted to an inpatient unit for mental health or psychiatric reasons?

☐ Yes, voluntarily (you agreed to it) (1)
☐ Yes, involuntarily (you did not agree but were made to stay) (2)
☐ No (3)
☐ Not applicable or I have not exchanged sex or sexual acts for anything of value (4)

5 **HCU_17** While you were exchanging sex or sexual acts for anything of value, did you participate in individual, group, or family therapy?

☐ Yes (1) ☐ No (2) ☐ Not applicable or I have not exchanged sex or sexual acts for anything of value (3)

6 **HCU_18** While you were exchanging sex or sexual acts for anything of value, were you prescribed psychiatric medication by a psychiatrist or doctor?

☐ Yes (1) ☐ No (2) ☐ Not applicable or I have not exchanged sex or sexual acts for anything of value (3)

Health_1 Would you say that in general your health is:

☐ Excellent (1) ☐ Very good (2) ☐ Good (3) ☐ Fair (4) ☐ Poor (5)

Health_2 Now thinking about your physical health, which includes physical illness and injury, for how many days during the past 30 days was your physical health not good?

☐ 0 days (1)
☐ 1 day (7)
☐ 2-3 days (2)
☐ 4-7 days (3)
☐ 8-14 days (4)
☐ 15-29 days (5)
☐ All 30 days (6)

Health_3 Now thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good?

- ☐ 0 days (1)
- ☐ 1 day (4)
- ☐ 2-3 days (2)
- ☐ 4-7 days (3)
- ☐ 8-14 days (5)
- ☐ 15-29 days (6)
- ☐ All 30 days (7)

Health_4 During the past 30 days, for how many days did poor physical or mental health keep you from doing your usual activities, such as self-care, work or recreation?

- ☐ 0 days (1)
- ☐ 1 day (2)
- ☐ 2-3 days (3)
- ☐ 4-7 days (4)
- ☐ 8-14 days (5)
- ☐ 15-29 days (6)
- ☐ All 30 days (7)

Health_5 Are you limited in any way in any activities because of any impairment or health problem?

- ☐ Yes (1)
- ☐ No (2)

Health_6 During the past 30 days, for about how many days have you felt sad, blue or depressed?

- ☐ 0 days (1)
- ☐ 1 day (2)
- ☐ 2-3 days (3)
- ☐ 4-7 days (4)
- ☐ 8-14 days (5)
- ☐ 15-29 days (6)
- ☐ All 30 days (7)

Health_7 During the past 30 days, for about how many days have you felt worried, tense, or anxious?

- ☐ 0 days (1)
- ☐ 1 day (2)
- ☐ 2-3 days (3)
- ☐ 4-7 days (4)
- ☐ 8-14 days (5)
- ☐ 15-29 days (6)
- ☐ All 30 days (7)

Health_8 During the past 30 days, for about how many days have you felt you did not get enough rest or sleep?

- ☐ 0 days (1)
- ☐ 1 day (2)
- ☐ 2-3 days (3)
- ☐ 4-7 days (4)
- ☐ 8-14 days (5)
- ☐ 15-29 days (6)
- ☐ All 30 days (7)

Health_9 On an average night, how many hours of sleep do you get?

- ☐ 4 hours or fewer (1)
- ☐ 5 hours (2)
- ☐ 6 hours (3)
- ☐ 7 hours (4)
- ☐ 8 hours (5)
- ☐ 9 hours (6)
- ☐ 10 or more hours (7)

Health_10 The next few questions are about health problems you might have had at any time in your life. Have you ever had any of the following:

	Yes (1)	No (2)	Don't know (3)
Chronic back or neck problems? (1)	○	○	○
Frequent or severe headaches? (2)	○	○	○
Any other chronic pain? (3)	○	○	○
Seasonal allergies like hay fever? (4)	○	○	○
Insomnia? (5)	○	○	○
COVID-19? (6)	○	○	○

Health_11 Did a doctor or other health professional ever tell you that you had any of the following health illnesses?

	Yes (1)	No (2)	Don't know (3)
Heart disease (1)	○	○	○
High blood pressure (2)	○	○	○
Asthma (3)	○	○	○
Tuberculosis (4)	○	○	○
Any other chronic lung disease like COPD or emphysema? (5)	○	○	○
Diabetes or high blood sugar? (6)	○	○	○
An ulcer in your stomach or intestine? (7)	○	○	○
HIV infection or AIDS? (8)	○	○	○
Any other sexually transmitted diseases *(such as chlamydia or gonorrhea)* (9)	○	○	○

Health_12 **Thank you for telling us about your general health concerns. The next 3 questions ask you specifically about the time you were exchanging sex or sexual acts for anything of value.**

Health_13 When you were exchanging sex or sexual acts for anything of value *(or trafficked, also called "in the life")*, **what health problems did you experience?** *(Write "NA" if not applicable)*

_____

2 **Health_14** When you were exchanging sex or sexual acts for anything of value *(or trafficked, also called "in the life")*, were you able to get help for those health problems? Why or why not? *(Write "NA" if not applicable)*

_____

3 **Health_15** When you got "out of the life" - that is, no longer exchanging sex or sexual acts for anything of value, did you ever tell a doctor or nurse about the fact that you had been exchanging sex or sexual acts for anything of value? Why or why not? *(Write "NA" if not applicable)*

_____

Psych_1 Have you ever been told by a doctor, therapist, or another professional that you have any of the following:

	Yes (1)	No (2)	Not diagnosed, but suspect I have it (3)	Don't know (4)
PTSD or post-traumatic stress disorder (1)	O	O	O	O
Attention deficit disorder or Attention deficit hyperactivity disorder *(ADD, ADHD)* (2)	O	O	O	O
Oppositional/defiant disorder or conduct disorder *(ODD or CD)* (3)	O	O	O	O
Autism or autism spectrum disorder (4)	O	O	O	O
Intellectual disability (5)	O	O	O	O
Learning disorder: Dyslexia, reading, math, or other learning problem other than ADD/ADHD (6)	O	O	O	O
Depression (7)	O	O	O	O
Eating disorder, e.g., anorexia, bulimia or binge eating disorder (8)	O	O	O	O
Bipolar disorder (includes Bipolar 2 disorder) (9)	O	O	O	O
Schizophrenia or schizoaffective disorder (10)	O	O	O	O
Anxiety disorder *(e.g., obsessive compulsive disorder or OCD, social anxiety, generalized anxiety disorder or GAD)* (11)	O	O	O	O
Substance use or alcohol use disorder (12)	O	O	O	O

Psych_2 Other disorder not listed here

_____

PROMIS **For the following section, please select the answer choice that best fits:**

	Never (1)	Rarely (2)	Sometimes (4)	Most of the time (5)	Always (6)
I have someone who understands my problems (1)	○	○	○	○	○
I have someone who will listen to me when I need to talk (2)	○	○	○	○	○
I have someone to talk with when I have a bad day (3)	○	○	○	○	○
There is someone around to help me if I need it (4)	○	○	○	○	○
I can get helpful advice from others when dealing with a problem (5)	○	○	○	○	○
I get useful advice about important things in my life (6)	○	○	○	○	○
I have someone to talk with about school or work problems (7)	○	○	○	○	○

PROMIS_8 **If I had to leave where I am staying I could easily find another place to stay**

☐ Yes (1) ☐ No (2)

PCL **Below is a list of problems and complaints that people sometimes have in response to stressful life experiences. Please read each one carefully, then choose one of the categories to the right to indicate how much you have been bothered by the problem.**

	Not at all (1)	A little bit (2)	Moderately (3)	Quite a bit (4)	Extremely (5)
Repeated, disturbing and unwanted memories of the stressful experience? (1)	○	○	○	○	○
Repeated, disturbing dreams of the stressful experience? (2)	○	○	○	○	○
Suddenly acting or feeling as if a stressful experience were actually happening again *(as if you were actually back there reliving it)*? (3)	○	○	○	○	○

	Not at all (1)	A little bit (2)	Moderately (3)	Quite a bit (4)	Extremely (5)
Feeling very upset when something reminded you of the stressful experience? (4)	○	○	○	○	○
Having strong physical retains when something reminded you of a stressful experience *(e.g. heart pounding, trouble breathing, sweating)*? (5)	○	○	○	○	○
Avoiding memories, thoughts, or feelings related to the stressful experience? (6)	○	○	○	○	○
Avoiding external reminders of the stressful experience *(for example, people, places, conversations, activities, objects, or situations)*? (7)	○	○	○	○	○
Trouble remembering important parts of the stressful experience? (8)	○	○	○	○	○
Having strong negative beliefs about yourself, other people, or the world *(for example, having thoughts such as: I am bad there is something seriously wrong with me, no one can be trusted, the world is completely dangerous)*? (9)	○	○	○	○	○
Blaming yourself or someone else for the stressful experience or what happened after it? (10)	○	○	○	○	○
Having strong negative feelings such as fear, horror, anger, guilt or shame? (11)	○	○	○	○	○
Loss of interest in activities that you used to enjoy? (12)	○	○	○	○	○
Feeling distant or cut off from other people? (13)	○	○	○	○	○

	Not at all (1)	A little bit (2)	Moderately (3)	Quite a bit (4)	Extremely (5)
Trouble experiencing positive feelings *(for example, being unable to feel happiness or have loving feelings for people close to you)*? (14)	○	○	○	○	○
Irritable behavior, angry outbursts, or acting aggressively? (15)	○	○	○	○	○
Taking too many risks or doing things that could cause you harm? (16)	○	○	○	○	○
Being "super alert" or watchful or on guard (17)	○	○	○	○	○
Feeling jumpy or easily startled? (18)	○	○	○	○	○
Having difficulty concentrating? (19)	○	○	○	○	○
Trouble falling or stayingasleep? (20)	○	○	○	○	○

TSCC The following items describe things that people sometimes think, feel or do. Please mark how often it happens to you ranging from never happens to you, sometimes happens, it happens lots of times and it happens almost all of the time.

	Never (1)	Sometimes (2)	Lots of times (3)	All the time (4)
Feeling afraid something bad might happen (1)	○	○	○	○
Pretending I am someone else (2)	○	○	○	○
Feeling lonely (3)	○	○	○	○
Feeling sad or unhappy (4)	○	○	○	○
Going away in my mind, trying not to think (5)	○	○	○	○
Crying (6)	○	○	○	○
Getting scared all of a sudden and don't know why (7)	○	○	○	○
Feeling dizzy (8)	○	○	○	○

	Never (1)	Sometimes (2)	Lots of times (3)	All the time (4)
Feeling afraid something bad might happen (1)	○	○	○	○
Pretending I am someone else (2)	○	○	○	○
Feeling lonely (3)	○	○	○	○
Feeling sad or unhappy (4)	○	○	○	○
Going away in my mind, trying not to think (5)	○	○	○	○
Crying (6)	○	○	○	○
Getting scared all of a sudden and don't know why (7)	○	○	○	○
Feeling dizzy (8)	○	○	○	○
Wanting to hurt myself (9)	○	○	○	○
Feeling scared of men (10)	○	○	○	○
Feeling scared of women (11)	○	○	○	○
Washing myself because I feel dirty on the inside (12)	○	○	○	○
Feeling stupid or bad (13)	○	○	○	○
Feeling like I did something wrong (14)	○	○	○	○
Feeling like things aren't real (15)	○	○	○	○
Forgetting things, can't remember things (16)	○	○	○	○
Feeling like I'm not in my body (17)	○	○	○	○
Feeling nervous or jumpy inside (18)	○	○	○	○
Feeling afraid (19)	○	○	○	○
Pretending I'm somewhere else (20)	○	○	○	○
Being afraid of the dark (21)	○	○	○	○
Worrying about things (22)	○	○	○	○

	Never (1)	Sometimes (2)	Lots of times (3)	All the time (4)
Feeling like nobody likes me (23)	○	○	○	○
My mind going empty or blank (24)	○	○	○	○
Trying not to have any feelings (25)	○	○	○	○
Feelings afraid somebody will kill me (26)	○	○	○	○
Wanting to kill myself (27)	○	○	○	○
Daydreaming (28)	○	○	○	○

PConsent If you are under 18 and we had required your parent or guardian to sign a permission form for you to take this survey, would you still have done it?

- ☐ Very unlikely (1)
- ☐ Somewhat unlikely (2)
- ☐ Neutral (3)
- ☐ Somewhat likely (4)
- ☐ Very likely (6)
- ☐ I am over 18 (7)

R1 ***You will now be directed to two different surveys, which are completely separate from the answers you just gave. One will ask if you would like someone from the research team to contact you, and the other will ask how you would like to receive your gift card. Please click all the way through and fill out the information.***

Appendix D

Qualitative Interview Recruitment Flyer

Appendix E

Adult Survivor of Childhood CSE Qualitative Interview Instrument

1. Date of interview: _____(mm/dd/yyyy)
2. Interview Location: _____
3. Interviewer Initials: _____

Hello, my name is_____ and I work with _____. We are conducting a research study with a team led by Northeastern University to understand the health care concerns of people who have experienced exploitation/ sex trafficking and to learn more about their health and how they get their medical and health care needs met. There is no obligation to take part in this interview. If you do participate your privacy will be protected, you will not be personally identified in any way. The interview will take about one hour of your time. The primary goal of this study is to gather information to improve services to meet the health care needs to people who have experienced victimization. [Review verbal consent form] Do you have any questions about the study or your participation?

- *Before we begin, I want to make sure you are in a safe and confidential place for this conversation.*
- *How are you doing today? How is your day going?*
- *Can you tell me a little about how you learned about this interview opportunity?*

Throughout the interview I am not going to ask very specific questions about your exploitation experience. You can feel free to share as you feel comfortable but that is not the focus of our time together. The one question that I will ask to help guide our conversation is for you to tell me about what age you were at when commercial sexual exploitation or trading sex for something of value began? **[This is where we can end the interview if the interviewee indicates that they did not trade sex or were not commercially sexually exploited before 24** – ideally 18 but we are finding some folks where the exploitation began during that transition age]. Approximately how old where you when that exploitation ended?

I am going to start with some general questions that pertain to health and accessing health systems. We will then talk a bit more about health concerns and experiences during specific times in your life.

1. **Health and Well-being:** I'd like to talk a bit about health and well-being.
   a. Tell me about what it means to you to be healthy? Possible prompt: How might you know if someone is healthy?
   b. What are some of the ways that you care for your health? Are there any specific things you do to take care of your health?
   c. Who helps you in take care of your health? Possible prompts: Think of family, friends, doctors, and other professionals you spend time with—are there people who are particularly helpful?
   d. What do you think are some important health issues for young adults in your community?
      i. What about for you?

Now, I am going to ask you a few questions about your health and experiences of healthcare in the past. We will start by talking about when you were fairly young- a childand then talk about your experiences before, during, and just after trading sex. Just as a reminder, we are NOT asking you about your experiences trading sex. Instead, we are really trying to understand health and healthcare. You can skip any questions you don't feel comfortable asking. OK?

2. From what you know or can remember, what was your health like as a young child, prior to the time when you experienced exploitation (traded sex)?

   For example, do you know if you:

   - Saw a pediatrician?

- Saw a dentist?
- Did you receive vaccinations?
- Did you ever go to the emergency room or riding in an ambulance?
- Did you get any reproductive healthcare?
- Did you receive mental health care or support?

3. From what you remember, can you pick one or two experiences and tell me what those experiences were like? *Possible prompts: did you feel supported, did you get your health care needs met, were people kind?*

4. During the time before exploitation, were there people who helped you in take care of your health? *Possible prompts: Think of family, friends, doctors, and other professionals you spend time with—are there people who are particularly helpful?*

5. Were there things that made it hard to get health care (including mental and/or dental care)?
   - Transportation challenges?
   - People treating you disrespectfully?
   - Financial concerns/lack of money or insurance
   - Others?

Now I am going to ask you some questions about your health and experiences of healthcare during the time you experienced exploitation (when you were trading sex).

6. During the time of your exploitation (when you were trading sex) what was your health like? What concerns did you have? How did you take care of your health when you were able to?

   Can you tell me about any places you received health care or services that were helpful to your health? Probe on the following:

   - Doctors (probe on type of doctor and facility)?
   - Reproductive health care?
   - Dentist?
   - EMTs/Emergency rooms?
   - Ambulance trips?
   - Mental health care or support?

7. From what you remember, can you pick one or two experiences and tell me what those experiences were like? *Possible prompts: did you feel supported, did you get your health care needs met, were people kind, did you feel respected and valued?*

8. Were there things that made it hard to get health care (including mental and/or dental care?
   - Transportation challenges?
   - People treating you disrespectfully?
   - Financial concerns/lack of money or insurance
   - Other?

Now I am going to ask you some questions about your health and experiences of healthcare since the time you experienced exploitation (when you were trading sex) until present day.

9. In the time since you have been out of any situation of exploitation what was your health like? What concerns did you have/do you have now? How did you/do you take care of your health when you were able to?

   Can you tell me about any places you received health care or services that were helpful to your health? Probe on the following:
   - Doctors (probe on type of doctor/facility)?
   - Reproductive health care?
   - Dentist?
   - Emergency rooms?
   - EMTs/Ambulance rides?
   - Mental health care or support?

10. Can you pick one or two experiences and tell me what those experiences were like? Possible prompts: did you feel supported, did you get your health care needs met, were people kind, did you feel respected and valued?

11. Were there things that made it hard to get health care/dental care?
    - Transportation challenges?
    - People treating you disrespectfully?
    - Financial concerns/lack of money or insurance
    - Other?

We now have a few additional questions about your overall experiences of healthcare.

- At any time in your life, have you had to fill prescriptions? If so, how has this process been? Have you encountered any challenges getting access to prescriptions you may need or regularly getting prescriptions filled?
- Have there been times when you have a health problem that you took care of it on your own instead of seeing a doctor? (Prompt: use home remedy, use alcohol or illegal drug to deal with a health problem/ distress) What led you to take care of your health on your own? Did the problem resolve?
- Were you ever forced into treatment or care that you did not seek or want (Prompt: being required to complete inpatient treatment or services?) How were these experiences? Did you feel that these experiences improve your health?
- When you look for a clinic or health care provider, what sorts of things are most important to you/? Possible prompt: What are some things you look at first for a general practitioner? A specialist? A mental health provider?
- Throughout your life, have there been any people or agencies that helped to facilitate your access to health care services?
- Looking back, is that anything that people didn't do, but would have been helpful?
- ** How have the experiences you have had accessing health care or meeting your physical or psychological health needs as a youth impacted your health care security today?
- ** As an adult, do you face any long-term or continuing physical or psychological health problems as a result of your victimization? In what ways does your experience surviving commercial sexual exploitation/trading sex impact what you are looking for in health care and health care services?
- ** Do you have recommendations improving how we meet the healthcare needs of youth who may share your experiences today?
- Can you tell me about something you have done to take care of yourself or be healthy that you are proud of?
- In thinking about our time together today, and all we've discussed- is there anything I should have asked you and didn't? Is there anything else you think I should know?

Thank you so much for your time. This has been incredibly helpful and it has been a pleasure to learn from you.

Appendix F

Qualitative Interview Coding Domains

Code Domain	Coding Domain Description
Type of Care	List of type of care participant may have had (primary care, hospital, ER, clinics, etc)
People and Relationships	List of people that participants may have mentioned (parents, traffickers, child, friend, teacher, etc)
Participant's Expressions of Health-Related Topics	
Meaning of Health	Captures participants' perspectives, interpretations, and conceptualizations of what health means to them. Participants' responses that discuss their understanding of health, including how they define it, what components or dimensions they consider essential, and any associated values or beliefs.
Mental Health Concerns or Issues	The presence or absence of mental health concerns or issues within individuals. Mental health concerns encompass a broad spectrum of mental conditions that may impact an individual's well-being, such as suicidal ideation or substance use.
Physical Health Concerns or Issues	The presence or absence of physical health concerns or issues within individuals. Physical health concerns encompass a broad spectrum of physical conditions that may impact an individual's well-being.
Reproductive Healthcare	The presence or absence of physical health concerns or issues within individuals. Physical health concerns encompass a broad spectrum of physical conditions that may impact an individual's well-being.
Pregnancy Experiences	reproductive and sexual care birth control, condoms, UTIs, menstrual cycle, yeast infections, etc
Substance Use	Discussions related to the consumption, misuse, or dependence on substances such as alcohol, tobacco, illicit drugs, or prescription medications for non-medical purposes. Instances where participants disclose information, experiences, attitudes, or behaviors regarding the use of substances, including frequency, patterns, motivations, consequences and efforts to control or cease use.
Suicide concerns	Instances where participants express thoughts, feelings, or experiences related to suicide, including ideation, attempts, or concerns about others' suicidal behavior.
Comorbid Concerns	The presence or absence of comorbid concerns in individuals. Comorbid concerns refer to the simultaneous presence of two or more medical conditions or concerns within an individual. The presence of comorbid concerns may impact various aspects of health, treatment strategies, and prognosis. Comorbid concerns can range from physical health conditions to mental health disorders.

Code Domain	Coding Domain Description
Medication or Prescriptions	Where participants discuss the use of medication or prescriptions as part of their health management or treatment regimen.
Experiences with Healthcare Providers	
Awareness of CSE by Provider	Instances where participants say their medical professionals or facilitators demonstrate knowledge, understanding, or perceptions related to the commercial sexual exploitation of individuals. Awareness is about times where they felt like they weren't being screened or they specifically weren't being recognized, rather than a broader knowledge of CSE in general NOTE: Code is either the absence or presence of the thing; provider showed signs of awareness of CSE
Recognizing or Identification of CSE	Instances where participants share their experiences with medical professionals or facilitators identifying or failing to clearly identify CSE given knowledge, and experience, and presentation of signs. Possible missed identification -Caution from past exp with harm of idea recognizing CSE referral - reporting individual exp. NOTE: Code is either the absence or presence of the thing; provider specifically calling out CSE victimization
Provider characteristics	Participants' descriptions, perceptions, or observations regarding the personal traits, expertise, communication styles, attitudes, or behaviors of healthcare providers, including physicians, nurses, therapists, counselors, and other allied health professionals.
Trauma Informed System	Organizations or systems that recognize the prevalence and impact of trauma on individuals and aim to create environments that are sensitive, responsive, and supportive of trauma survivors.
Involuntary Treatment	Situations where they were perceived to be subjected to treatment interventions, including hospitalization, medication administration, therapy, or other forms of care, without their voluntary agreement. Both physical and mental health treatment. Perceived
Wait time	When a participant talks about how long they have to wait for care, or how long they spend with a doctor.
Experience with service provision	Will most likely be double coded, meant to serve as a code when others do not apply.
Quality of Health Care	
Healthcare Barriers	Barriers and facilitators to healthcare Barrier to receiving care Barriers to receiving care refer to obstacles, challenges, or factors that hinder individuals' ability to access or receive healthcare services when needed. These barriers specifically pertain to difficulties in accessing healthcare services, including preventive care, treatment, and management of health conditions

Code Domain	Coding Domain Description
Health Barriers	Barriers and facilitators to health For risk and protective factors- things that help people to promote or maintain their health Barrier to maintaining health Factors, obstacles, or challenges that individuals encounter in their efforts to maintain or improve their physical, mental, or social well-being. Reflections on the difficulties, limitations, or hindrances they face in accessing healthcare services, adopting healthy behaviors, managing chronic conditions, or addressing social determinants of health.
Healthcare avoidance	They going to healthcare facilities or avoid focusing on health related practices (food, exercise, mental health, past injuries, stomach aches, etc)
Confidentiality	Mentions of concerns over private information or information sharing of medical records NOTE: Code is either the absence or presence of the thing
Goodness of Fit	* if they describe a positive interaction without explicitly mentioning trust. * Extent to which an individual's finds the healthcare ex's characteristics, or preferences align with their needs. Reflections on the degree of compatibility, congruence, or harmony between themselves and healthcare places/people, including social, cultural, organizational, or interpersonal contexts.
Trust	When the word trust is specifically mentioned - Reliance individuals have in others, institutions, or systems, based on perceptions of credibility, competence, integrity, and reliability. Can be could when there are mentions of mistrust or lack of trust
Things that would help	Self-reflection or suggestions on how things could have been better/more helpful
Strategies to navigate healthcare	Self-reflection or suggestions on how things could have been better/more helpful
Feelings and Emotions	
Dehumanization	Individuals express feelings, perceptions, or experiences of not being treated as fully human or not feeling like a human being themselves, often due to interactions, attitudes, or systemic factors that undermine their dignity, autonomy, or worth. They express not being treated like a human being or didn't feel like a human being (internalized). When they are using this kind of language discuss further - find the quote and use participant words *
Discrimination	Experiences, perceptions, or instances where individuals are treated unfairly, unfavorably, or unjustly based on their CSE experiences, race, ethnicity, gender, sexual orientation, disability, age, religion, or other protected characteristics. Any discussion of discrimination - linked to any aspect of identity NOTE: Stigmatization involves negative social attitudes and beliefs leading to social exclusion, while discrimination involves actions and policies that result in unfair treatment and inequality. Both processes are harmful and often interconnected, as stigmatization can lead to discrimination, and discriminatory practices can reinforce stigmatizing attitudes. Stigma can happen with discrimination but discrimination can' happen without stigma.

Code Domain	Coding Domain Description
Stigmatization	Participants' narratives or reflections on experiences of being stigmatized, marginalized, or discriminated against due to factors such as CSE, race, ethnicity, gender, sexual orientation, disability, mental illness, or other socially constructed categories. Social process of labeling, stereotyping, or discriminating against individuals or groups based on perceived differences, deviations from social norms, or characteristics that are devalued or marginalized within a particular context. Can be double coded with discrimination when there is unjustly actions, behaviors, or practices that treat individuals NOTE: Code is either the absence or presence of the thing
Shame	Feeling ashamed is brought up in any way
Discomfort	Expressed discomfort from something or an experience
Fear	Was fearful of something, expressed concerned of going and possibly avoiding
Self-Reliance	Relied on themselves for care
Proud of health	What are you proud of?- response Expressions of pride of health in response to question or in general
Still working through	Instances where individuals express ongoing processes of grappling with processing, or making sense of their emotions, needs, or understanding of a particular event, experience, or situation
OTHER	
Disclosure	When they revealed or DID NOT reveal CSE or exploitation experiences Disclosure could include awareness, self-recognition, hypothetical disclosure/ lack thereof
Exp. of Trauma	Instances where individuals recount or describe distressing, harmful, or life-threatening events or circumstances that have caused significant emotional, psychological, or physical distress, often leading to lasting effects on well-being and functioning.
Spiritual health	Their spiritual health (personal) - dimension of health encompassing their beliefs, values, practices, and experiences related to spirituality or religion.
Help Seeking	Strategies, processes, or methods individuals employ to seek assistance, support, or guidance in addressing personal, emotional, or practical challenges, distinguishing between formal (professional) and informal (non-professional) sources of help. NOTE: Code is either the absence or presence of the thing
Strategies to navigate healthcare	Approaches, tactics, or methods individuals use to access, utilize, or negotiate healthcare services, systems, or resources effectively. Actions behaviors, or practices they employ to overcome barriers, address challenges, or optimize their experiences within healthcare settings.
CJ Involvement	
Transportation	Modes, availability, accessibility, challenges, or experiences individuals have with transportation services, including public transit, private vehicles, ridesharing, walking, biking, or other means of travel to health-related locations

Code Domain	Coding Domain Description
Financial Concerns	Examples where individuals express worries, anxieties, or difficulties related to their financial situation, including income, expenses, debt, savings, or access to resources and opportunities.
Gender	Mentions of foster care, group homes, or other state response for housing Participants' narratives or reflections on their current housing situation, including whether they live independently, with family members, in group homes, foster care, shelters, or other arrangements, as well as their experiences with guardianship or caretakers.
Insurance	Refers to the coverage, access, utilization, or experiences individuals have with health insurance plans, including private insurance, governmentsponsored programs, or other forms of coverage.
Grooming	When the participant speaking about being groomed by anyone in their life.
Community Needs	Refers to the gaps, challenges, or priorities identified by individuals or communities regarding essential services, resources, or opportunities within their local area or broader community.
Faith-based Organization	Interaction with org with faith (referrals) Refers to the involvement of faith-based organizations in providing support, services, or referrals related to healthcare needs, including medical care, mental health services, preventive screenings, health education, or social support.
Timeline	
After Trafficking	
Before Trafficking	
During Trafficking	