Victims of Child Sex Trafficking: Are U.S. Pediatricians Ready to Identify, Assess, Treat and Protect Them?

Bidisha Sinha

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ABSTRACT

The trafficking of children for commercial sexual exploitation is a gross violation of human rights and a global, public health issue that is rapidly growing and prevalent. Due to the clandestine nature of this crime and the general lack of public knowledge about it, identifying and protecting victims of child sex trafficking (CST) is fraught with challenges. Therefore, it is imperative that healthcare professionals - often the only professionals with whom CST victims come in contact while in captivity - are properly educated and trained on this topic. A literature review reveals there is little knowledge about pediatricians’ education and training on identifying and caring for trafficked children. The purpose of this quantitative, exploratory study was to understand if and how well pediatricians in the U.S. are educated/trained on the topic of CST; and the relationship between a pediatrician’s education/training and their knowledge of, comfort with and self-perceived barriers to identifying, assessing, treating and reporting a victim of child sex trafficking, leading to specific recommendations for educating and training of pediatricians in the U.S. A survey was distributed to pediatricians across the U.S. with the help of the American Academy of Pediatrics. A total of 127 pediatricians responded. The main findings are as follows: (a) 60% of participants did not receive any education or training on the topic of CST, while about 40% reported only having “some” during medical school and residency; (b) 70% - 90% of respondents felt only “slightly” or “not at all” knowledgeable or comfortable about various aspects of care for a CST victim; (c) over 70% of participants desired more education and training on CST. Most participants cited their “lack of training” as a barrier to identifying
and treating CST victims, underscoring the great need to increase physician education in order to help CST victims.
CHAPTER ONE
INTRODUCTION

The purpose of this quantitative, exploratory study was to understand the nature of education and training of pediatricians in the U.S. on the topic of child sex trafficking (CST) and pediatricians' knowledge of, comfort with and barriers to properly identifying/screening, assessing, treating and reporting victims of CST in the clinical setting. As illustrated in the literature review, some research has been done on related topics, such as the breadth and depth of training of healthcare providers on the topic of human trafficking (HT) and the content of existing HT curricula. However, a state-agnostic study, focused just on pediatricians and their self-reported knowledge, comfort, and perceived barriers remained largely unexplored prior to this study.

Statement of Problem

Even though the trafficking of children is a harrowing crime against humanity, we know that it is growing and widely prevalent. The International Labor Organization (ILO) estimates that there are 20.9 million victims of forced labor, globally, including those who were trafficked for labor and sexual exploitation. Furthermore, according to the UN Office of Drugs and Crime (UNODC) 2012 “Global Report on Trafficking in Persons,” the trafficking of children is increasing, with children comprising approximately 27% of the total number of trafficked persons, between the years of 2001-2010. Moreover, due to the covert nature of this crime and the general lack of public knowledge about the issue, estimating the national and global
prevalence of child trafficking and identifying victims of child trafficking is fraught with challenges.

To keep up with this growing epidemic, more people need to be trained to properly identify and report child trafficking. This is especially true for healthcare professionals who are often the only professionals or “outsiders” with whom trafficked victims in captivity come in contact (Dovydaitis, 2010). According to various studies, anywhere between 30-87.8% of trafficked persons seeking aftercare services reported obtaining medical care during their period of exploitation (Baldwin, Eisenman, Sayles, Ryan, & Chuang, 2011; Becker & Bechtel, 2015; Family Violence Prevention Fund, 2005; Lederer & Wetzel, 2014). Sadly, however, healthcare providers often miss the signs – clinical, psychological, emotional – of sex trafficked victims, due to their lack of education, training and/or experience (Hountz, 2018). And, there is little research that suggests definitive solutions to this issue.

For instance, there are studies that generalize the barriers that all healthcare professionals may face when dealing with human trafficking. Others, such as the study by Schwarz, Unruh, Cronin, Evans-Simpson, Britton, and Ramaswamy (2016), describe intervention tools that can help those in the medical and social service sectors identify and intervene on behalf of trafficked persons. Still others, such as the study conducted by Baldwin et al. (2011), report the experiences of trafficked persons while they are in the care of medical professionals. However, in current literature, there is very little information about the specific knowledge, comfort, barriers and training gaps of pediatricians in identifying and managing victims of child sex trafficking. In fact, to date, no state-agnostic study has been conducted in the U.S., focused on the specific
problem of the barriers that pediatricians may face when trying to identify, assess, treat or report a sex-trafficked child - this is a gap that this study aims to fill.

**Purpose of the Study**

The purpose of this quantitative, exploratory study was to understand if and how well pediatricians in the U.S. are educated/trained on the topic of child sex trafficking; and the relationship between a pediatrician’s education/training and their knowledge of, comfort with and self-perceived barriers to identifying/screening, assessing, treating and reporting a victim of child sex trafficking, leading to specific recommendations for educating and training of pediatricians in the U.S. The study was open to any/all pediatricians who are members of the American Association of Pediatrics (AAP) and utilized an online survey tool to gather responses to mainly, multiple choice questions about their education/training, practice, experience with and attitudes about child sex trafficking.

**Significance of Study**

Given that victims of trafficking may come in contact with healthcare providers (HCPs) while in captivity (Becker & Bechtel, 2015), it is imperative that HCPs are trained and capable of properly recognizing, assessing, treating and reporting trafficked victims who come through their hospital or clinic doors. Although the training of healthcare professionals on the topic of human trafficking is expanding, the quality, consistency and rigor of these training programs vary widely. For instance, in a study by Ahn et al. (2013), they reviewed existing educational resources for healthcare providers on human trafficking and found that they were significantly different in scope, length, format and even intended audience. Moreover, none of the 27 items they had found in their search of peer-reviewed and gray literature were rigorously evaluated.
As the availability and accessibility of educational resources for healthcare providers on the topic of human trafficking increases, so does the need to standardize human trafficking training content to ensure that all healthcare professionals are receiving consistent, correct, trauma-informed and patient-centered care training (Powel, Dickins, & Stoklosa, 2017). First however, it is crucial to understand if and how education is related to a HCP’s capacity to properly identify, assess, treat and report a victim of trafficking. For instance, how much and what type of education is the most effective in increasing HCPs knowledge, comfort and ability to overcome barriers related to managing human trafficking victims. These are the questions our study hoped to be able to answer, but more specifically, for pediatricians and child sex trafficking.

Several stakeholders may benefit from this study which assesses if and how education and training of pediatricians on the topic of child sex trafficking relates to their actual knowledge (assessed through clinical vignette questions), self-reported knowledge of, comfort with and perceived barriers to identifying/screening, assessing, treating and reporting victims of CST. Using this study’s results, medical schools and other training programs can determine how much and what type of education and training is most effective. This study may also benefit organizations such as the American Academy of Pediatrics and the American Medical Association who can leverage the findings to advocate for more and better training of physicians on this topic; and law makers who can champion policy change on a national level and demand policies to standardize training in all medical schools and programs.

Furthermore, while lessons can be learned from studies done on other, related topics such as child maltreatment or human labor trafficking, we hope that this study’s specific results will
be compelling to pediatricians, who can then be encouraged to demand more training on the topic of child sex trafficking. In addition, we hope that any and all education and training developed as a result of this study will be evaluated and that healthcare and research professionals will conduct their own research studies on this topic and contribute to the field, for research on human trafficking and the evidence base is still relatively small (Davy, 2016).

Most importantly, given the number of harmful mental and physical health effects of sex trafficking, it is crucial that victims and survivors get comprehensive healthcare, both acutely and over time (Albright, Greenbaum, Edwards, & Tsai, 2020). However, this cannot happen if trafficking victims continue to go unnoticed, untreated or unreported due to the fact that medical professionals lack the education and tools to appropriately respond to trafficked victims (Barnes & Gibbs, 2017). Therefore, we hope that children who are victims of sex trafficking may benefit the most from this research, as pediatricians become more adept in identifying them and then properly assessing, treating and reporting them, leading to their rescue and eventual healing.

**Theoretical Framework**

Human trafficking has traditionally been seen as a law enforcement issue with an emphasis on the criminalization of traffickers. The criminal justice lens, however, only focuses on what happens once a crime is committed; and, sometimes, punishes the innocent (arresting those who are trafficked, rather than traffickers or persons buying trafficked children’s services). On the other hand, a public health framework allows us to focus our efforts on preventing trafficking in the first place and also on helping those who are trafficked, their families and the population at large (Greenbaum, 2020). Further, since healthcare workers are often the only professionals with whom victims of trafficking come into contact, they are best positioned to
employ a public health approach to primary prevention of this crime. Another important lens that was formative for this study is that of human rights, as two pivotal themes in this study – education and access to healthcare – are issues of human rights (United Nations [UN], 1948; World Health Organization [WHO], 1948). These two frameworks and several others are explored in more detail in Chapter Two.

**Research Question**

Although human trafficking research has increased in the last 15 years, the evidence base is still relatively small (Davy, 2016). And, to date, there are no studies that specifically explore pediatricians’ training on and knowledge of child sex trafficking. To fill this gap, I proposed to assess pediatricians’: (1) child sex trafficking training and experiences, (2) self-reported knowledge of and comfort with identifying, assessing, treating and reporting child sex trafficking, (3) perceived barriers to screening, treating and reporting sex-trafficked children, and (4) performance on medical decision-making questions regarding the identification, assessment and management of child sex trafficking.

The main research question is: How well, if at all, are pediatricians in the U.S. trained, and able to identify, assess, treat and report a victim of child sex trafficking in a clinical setting? My sub-questions probe further, to establish how, if at all, the following factors are related to a pediatrician’s self-reported knowledge of, comfort with or perceived barriers to identifying/screening, assessing, treating and reporting a victim of child sex-trafficking:

1. whether or not they had any education or training on the topic of child sex trafficking;
2. type of education/training on the topic of child sex trafficking;
3. hours of education/training received;
4. years of practice as a physician;
5. gender; and
6. ethnicity

My hypothesis is that there is a significant gap in pediatricians’ training and education on child sex trafficking, which is associated with lower levels of knowledge and comfort with the topic and an increase in perceived barriers to properly screening, treating and reporting a victim of CST in the clinical setting. By studying whether pediatricians have received any education/training, where (e.g., medical school, residency, etc.), and how (e.g., via lectures, webinars, etc.) physicians are currently being educated/trained we can begin to understand where the gaps lie. By better understanding these gaps and if/how these gaps relate to performance, we can propose more informed policy changes in medical training (e.g., medical school or residency program curriculum) that could help bridge the deficiencies in the system.

**Overview of Research Design**

A survey with primarily quantitative data was given to the pediatricians to test the theory that pediatricians in the U.S. are not properly trained on the topic of child sex trafficking and that more education and training increases knowledge of and comfort with identifying/screening, assessing, treating and reporting a victim of child sex trafficking. We also wanted to test the hypothesis that certain amount and types of training would not only lead to an increase in knowledge and comfort, but also a decrease in perceived barriers to performing those activities. Since there had been relatively little research on this specific topic at the time this study was conducted and we were trying to learn more about the education and training of pediatricians to inform future, more extensive studies, we took an exploratory study approach (DeCarlo, 2018).
The study sample of pediatric physicians were members of and drawn from the American Academy of Pediatrics (AAP) - arguably, the central organizing entity for pediatricians, nationwide. Although the intention of the researcher was to invite any and all members of AAP to participate, recruitment relied on the cooperation of individual AAP Chapter Leaders, which could not be guaranteed. Ultimately, there were 127 participants who opted to take the survey, but since there was no way to know how many people received the invitation to the survey, we could not know the exact ratio of respondents to recipients. More details about the specific study design are provided in Chapter Three.

**Definition of Terms**

Following are some definition of terms that may help the reader’s understanding of the study’s concepts.

Commercial Exploitation of Children: any act in which a person under age 18 “takes part in a sexual activity in exchange for something (e.g., gain or benefit, or even the promise of such) from a third party, the perpetrator or by the child her/himself” (Greijer & Doek as cited in Greenbaum, 2020, p. 482).

Child Sex Trafficking: the recruitment, harboring, transportation, provision, obtaining, patronizing, or soliciting of a minor for the purpose of a commercial sex act (U.S. Dept of Justice [DOJ], 2020).

Human trafficking: the recruitment, transportation, transfer, harboring, or receipt of persons by improper means (such as force, abduction, fraud, or coercion) for an improper purpose including forced labor or sexual exploitation (National Institute of Justice, 2019).
Assumptions, Delimitations and Limitations

An assumption in our study was that our results would help us to evaluate the theory that pediatricians are not sufficiently educated/trained on the topic of child sex trafficking. We also assumed that most, if not all, participants were trained and practiced in the U.S., allowing us to comment on U.S.-based training and education. Another assumption was that study participants knew what we meant by identification/screening, treatment and reporting of child sex trafficking; and that they could distinguish child sex trafficking from child labor trafficking, or other child abuse/maltreatment. We also assumed that study participants answered the questions about knowledge and comfort honestly.

A limitation of this study was that only members of the American Academy of Pediatrics (AAP) were asked to participate. Additionally, given the process required by the AAP, we were not able to control the distribution of the survey to all AAP members, and, therefore, do not know how many members of the AAP actually received the invitation to participate and cannot calculate the response rate. Moreover, since the decision to distribute was left up to each Chapter Chair, and AAP chapters are designated by states (59 U.S. chapters and 7 Canada chapters), we were possibly, unintentionally limiting the study to people from one or a few particular states.

Another limitation of this study was that only pediatricians were respondents, yet they are not the only healthcare professionals to come into contact with sex trafficked children. By allowing other professionals - such as emergency and family physicians, physician assistants, nurses and social workers - to participate in the study, we could have made a better assessment of the state of education and training on the topic of child sex trafficking. Finally, by limiting our study to child sex trafficking, we may have missed the opportunity to assess pediatricians'
knowledge of other types of child trafficking. Moreover, although we specified child sex trafficking in the questionnaire and case study examples, it is possible that relatively untrained study participants did not distinguish child sex trafficking from other types of child trafficking, so we cannot definitively state whether their reported knowledge and comfort is specifically related to child sex trafficking.

Summary

This study utilized a quantified, exploratory survey to understand if and how well pediatricians in the US are educated and/or trained in the identification/screening, assessment, treatment and reporting of child sex trafficking victims. Most previous studies are focused on the gaps in training of all allied healthcare professionals and on human trafficking in general. This study fills a gap by studying a specific group of people and a specific type of trafficking. Moreover, it hoped to be able to understand if and how the amount and type of education related to pediatricians’ self-reported knowledge and comfort and barriers to working with a victim of child sex trafficking, so that stakeholders such as pediatricians, medical schools, societies and organizations and policy makers could benefit from the lessons learned.

Four more chapters follow this one. Chapter Two is a review of the literature which includes a more detailed definition of child trafficking and commercial sexual exploitation of children (CSEC), which, among other acts, includes child sex trafficking. I describe the prevalence of child sex trafficking in the U.S., the characteristics of victims and traffickers and the health consequences of being trafficked. I also explore the roles of physicians in preventing trafficking and the consequences of not being able to identify and report victims of trafficking and delve further into the public health framework and other theories that are relevant to this
topic. Chapter Three details the methods employed to conduct the study, including data collection and analyses. The research results are provided in Chapter Four, followed by an interpretation of the findings in Chapter Five, and a summary of conclusions in Chapter Six.
CHAPTER TWO
LITERATURE REVIEW

Even though the act of trafficking in persons has been plaguing humanity in various forms since humanity began, its importance as a global concern only came into public consciousness at the start of the twenty-first century. It was at the turn of the twenty-first century that human trafficking was deemed a “transnational crime” by the United Nations and identified by political leaders as an evil that haunts the globe, alongside terrorism and drug trafficking (Kempadoo, 2015). More recently, the 2030 Agenda for Sustainable Development (SDG 8.7) specifically called for the eradication of human trafficking (United Nations, 2015).

Detailed Definitions and Prevalence

According to the United Nation’s Office on Drugs and Crime, human trafficking affects almost every country in the world, whether as a country of origin, transit or destination for victims. The UN’s Trafficking in Persons or Palermo protocol states that human trafficking typically has three constituent elements: the act (or the “what”), the means (the “how”), and the purpose (the “why”). The act is defined as “the recruitment, transportation, transfer, harboring or receipt of persons,” and the means as “threat or use of force, coercion, abduction, fraud, deception, abuse of power or vulnerability, or giving payments or benefits to a person in control of the victim” (United Nation’s Office of Drugs and Crime [UNODC], n.d.). The purpose is described as “exploitation” which includes “at a minimum, the exploitation of the prostitution of others or other forms of sexual exploitation, forced labor or services, slavery or practices similar
to slavery, servitude or the removal of organs.” It is also important to note a few caveats: (a) When the victim is a child under age 18, the means are irrelevant; and (b) when/if any of the defined means are present, prior consent of a person to the exploitation becomes irrelevant (United Nations, 2000).

The difficulty in defining and estimating global human trafficking stems from the fact that the signatory parties of the Palermo protocol base their definitions of human trafficking on their own interpretation of the protocol’s wording. This results in variations such as the United States excluding organ trafficking and not requiring the transportation of a person from one place to another in its definition of human trafficking. The U.S. also differs from other countries by including the involvement of a child under 18 in any commercial sex act, regardless of a third party’s presence, in its definition of child sex trafficking (CST). This broadens the definition of CST by counting homeless, runaway and/or street children who are engaged in transactional sex to survive – an activity that is not necessarily included in other countries’ definition of CST (Greenbaum, 2020, p. 482).

Children, especially girls, who are victims of trafficking, are often also victims of commercial sexual exploitation (UN ESCAP, 1999). According to the U.S. Department of Justice (2020), commercial sexual exploitation of children (CSEC) refers to a range of crimes and activities involving the sexual abuse or exploitation of a child for the financial benefit of any person or in exchange for anything of value (including monetary and non-monetary benefits) given or received by any person. CSEC can take many forms, including: (a) child sex trafficking/the prostitution of children; (b) child sex tourism involving commercial sexual activity; (c) the commercial production of child pornography; and (d) the online transmission of
live video of a child engaged in sexual activity in exchange for anything of value. In addition, whether or not at the direction of any other person, when a child engages in sexual activity in exchange for anything of value (including non-monetary things such as food, shelter, drugs, or protection from any person) it is considered CSEC. Depending on the specific circumstances, CSEC may also occur in the context of internet-based marriage brokering, early marriage, and children performing in sexual venues (Commercial Sexual Exploitation of Children, n.d.).

Child sex trafficking involves the recruitment, harboring, transportation, provision, or obtaining of a person under the age of 18 for the purposes of a commercial sex act (DOJ, 2020). When sex trafficking crimes specifically involve U.S. citizens and lawful U.S. residents younger than 18 trafficked within U.S. borders, this is defined as domestic minor sex trafficking or DMST (Kotrla, 2010).

Human trafficking is not only difficult to define, its prevalence is also challenging to estimate due to the variations in its definition, its clandestine nature, the lack of centralized databases to track cases, underreporting by exploited persons and under-recognition of trafficked persons by the public and professionals with whom victims come into contact, such as healthcare providers (Kragten-Heerdink, Dettmeijer-Vermeulen, & Korf, 2018; Stansky & Finkelhor, 2008; UNODC, 2018). Corrupted authorities and low prioritization of human trafficking by governments are among other factors that contribute to the difficulty in identifying and tracking human trafficking. Acknowledging these difficulties, the ILO estimated that in 2016, approximately 25 million people were victims of forced labor, which includes forced labor in the private economy, state-imposed forced labor, forced sexual exploitation of adults and child
commercial sexual exploitation. Of this group, 4.5 million or 18% were children and approximately 1 million of them were victims of commercial sexual exploitation (ILO, 2017).

Child trafficking and CSE are global phenomena, with wide, geographic distribution. A 2004 Lancet article reported,

Regions with substantial child trafficking burdens in 2004 include west Africa, with at least 13 countries involved; South Asia, particularly India and Nepal; southeast Asia; central Asia, Eastern Europe and the Balkans, with trafficking largely into western Europe, Russia and the Commonwealth of Independent States; and Latin America, with substantial trafficking to the US. (Beyrer, 2004)

A 2009 UNODC report cites that children constitute 20% of all trafficked persons, worldwide. However, in some parts of Africa and the Mekong region, children make up the majority. For instance, in parts of West Africa, children constitute 100% of all trafficked victims. The report also confirms that trafficking is misunderstood as people moving across continents, when, in fact, most exploitation happens close to home: “data show intra-regional and domestic trafficking are the major forms of trafficking in persons” (UNODC, 2009).

Given the above, there is a common misperception that human trafficking is an international issue and that HT victims are necessarily transported across countries and CST victims must therefore be children smuggled into the United States from abroad. However, the UNODC (2018) reported that in-country trafficking is more common; the U.S. Department of State (2019) reported 77% of trafficking victims are exploited within their home country; and the Bureau of Justice (2011) reported that 83% of confirmed sex trafficking victims were U.S. citizens.

While there is very little reliable data available on the incidence or prevalence of trafficking in the U.S., according to the National Human Trafficking Hotline - which provides
one of the most comprehensive data sets on human trafficking in the U.S. - shows that in 2019, California Texas, Florida, New York, Ohio and Georgia, Michigan, Washington had the top 10 highest numbers of reported cases of human trafficking in the U.S. The total number of reported cases of human trafficking in 2019 in the U.S. was 11,500; the majority of which were females (over 9,000) for sex trafficking (over 8,000). In Georgia, Atlanta is a particularly major hub for trafficking with one of the highest levels of child sex trafficking in the U.S. It is important to note that the statistics provided by the National Hotline are based on aggregated information gathered through phone calls, texts, online chats, emails and online tip reports received by the hotline and do not represent the entire human trafficking prevalence or network in any particular area (National Human Trafficking Hotline, 2019).

Victims, Perpetrators and Profits

While victims of human trafficking are stereotypically depicted as seduced or abducted young girls, taken from their home countries and coerced into the sex industry (Bruckert & Parent, 2002), it is not just young girls who are trafficked; men, women, and children of all ages can fall prey to traffickers for purposes of sex and/or labor (Clawson, Dutch, Solomon, & Grace, 2009). However, it must be noted that according to the UNODC’s Global Report on Trafficking in Persons (2018), 30% of the victims of trafficking worldwide were mostly girl children; and 70% of girl victims were sexually exploited. Studies also show that the victims of CST/CSE are predominately female (Reid, Baglivio, Piquero, Greenwald, & Epps, 2017; UNODC, 2018; Varma, Gillespie, McCracken, & Greenbaum, 2015), and victims of domestic sex trafficking in the U.S. are minors – girls of 12-14 years of age and boys and transgendered youth of 11-13 years of age – of all race, ethnicity and socioeconomic backgrounds (Clawson et al., 2009).
Both international and domestic victims of human trafficking have certain characteristics that make them vulnerable to trafficking such as young age and poverty; and a lack of or limited education, work opportunities, and family support (e.g., orphaned, runaway/throwaway, homeless, family members collaborating with traffickers). They may also have a history of previous sexual abuse, health or mental health challenges, and live in vulnerable areas (e.g., areas with police corruption and high crime) (Salvation Army, 2006). In the United States, for example, runaway and homeless youth are at extremely high risk of sexual exploitation and studies of these youth show that boys are engaging in transactional sex in high numbers (Curtis, Terry, Dank, Dombrowski, & Khan, 2008). According to another study, the strongest predictor of human trafficking was prior sexual abuse, whereby girls who experienced sexual abuse were 2.52 times more likely to be trafficked and boys were 8.21 times more likely (Reid et al., 2017).

The sexual exploitation of children is undoubtedly complex and usually rooted in cultural practices, social norms, economic status, and other inherent factors of a community. These factors may determine which group is most at risk in a particular country or region. For instance, while girls account for 90% of children exploited through prostitution in Thailand, boys account for the same percentage in Sri Lanka. Cultural and social norms may also explain the relative scarcity of identified boys in CSE/CST (von Hohendorff, Habigzang, & Koller, 2017). For instance, cultures in which strict gender expectations dictate that males be strong may result in boys being too shy to reveal their victimization for fear of being ostracized, seen as 'weak’ or questioned about their sexual orientation (Davis, Glotfelty, & Miles, 2017; Refugee Law Project, 2013, as cited in Greenbaum, 2020). Furthermore, boys are likely to be seen as having more agency than girls and more likely to be perceived as offenders (“prostitutes”) rather than as
victims of exploitation (Dennis, 2008), leading to the under-recognition and under-reporting of boys.

The commercial sexual exploitation and sex trafficking of children are crimes perpetrated by those who prey on and benefit from the exploitation of particularly vulnerable populations, such as the poor, the marginalized, women and children. Poor girls and women, for instance, are lured into the commercial sex industry by promises of emotional, economic, and domestic stability. Prior exposure to poverty, abuse in the home, exposure to drugs and alcohol, and basic needs for love and affection, food, clothing, shelter and security are all contributing factors to susceptibility, the very vulnerabilities that become preyed upon by human traffickers (Rosenblatt, 2014).

Those who profit include a wide range of persons, including parents, family members, procurers/agents, and community members, largely men, but also some women (UN ESCAP, 1999). The demand is created by men (and occasional women) who seek out adults and children, for the purpose of purchasing sex acts. Without these (mostly) men demanding to buy sex acts, prostitution (and this can be extended to trafficking of children and women for sex) would not exist (Hughes, 2004). In fact, the U.S. government previously believed that sex trafficking was controlled by organized crime (Office on Violence Against Women [OVAW], 2000), but is now believed that the perpetrators of most of the trafficking into the US are individual entrepreneurs and small organized groups (Bush, 2004; Klueber, 2003). A less known and more surprising fact is that women constituted the largest proportion of traffickers in 30% of the countries which provided information on the gender of traffickers. In some areas of the world, women traffickers are the norm.
Yet, because of the clandestine nature of child trafficking, often at the behest of the wealthy and powerful who evade the legal system, it is difficult to prosecute offenders. For example, in a recent Miami Herald article, Palm Beach multi-millionaire, Jeffery Epstein’s repeated sex offenses were exposed. He was accused of forcing underage girls to perform sex acts on him, sometimes up to three times a day. He was also suspected to have trafficked minor girls from overseas for sex parties held in his numerous mansions around the country. With a 53-page indictment, he could have served the rest of his life in jail. The bewildering injustice, though, is that Epstein, with expensive attorneys and powerful allies on this side, was able to strike a deal that concealed the full extent of his crime, ensured he could not be further prosecuted for these offenses, and served only a paltry 13 months in jail (Brown, 2018).

Even sadder is the fact that his victims, with lives forever changed for the worse, remained voiceless until recently. In fact, victims usually tend to stay quiet about these crimes, fearing violent retaliation by the offenders and/or their gangs, being disbelieved by the justice system, and other repercussions such as stigma. In addition, according to the former Media/Advocacy Director of the Coalition to Abolish Slavery and Trafficking (CAST) in LA, Jennifer Strange, it may not be a victim’s priority to send their perpetrators to jail. She estimates that only 50% of CAST’s clients want to help prosecute their traffickers (Shigakane, 2007), which may also be true of the general population of trafficking victims.

There are several structural forces as well that drive global child trafficking, and one of them is the demand for cheap and controllable labor. For example, children are forced to work in homes, factories, on farms, in sweatshops and restaurants, and on construction sites. And, if there is a demand for cheap labor and a widespread tolerance for exploiting children laborers, child
trafficking will continue to happen (Beyrer, 2004). Another driving force for child trafficking is the use of children as child soldiers. Children are easily coerced into becoming soldiers and fighting for causes they do not comprehend due to their emotional immaturity. The most vulnerable to this manipulation are children who are poor, uneducated, separated from their families and homes and living in a combat zone. The Coalition to Stop the Use of Child Soldiers (2001) reports that approximately 300,000 children in over 30 countries worldwide are engaged in military conflict, while hundreds of thousands more are recruited into paramilitary organizations, guerilla groups, and civil militias, etc., in more than 85 countries.

Although illegal in every country of the world, trafficking of children for commercial sexual exploitation persists as a highly profitable business. According to an ILO report, the profits generated globally from all victims of forced commercial sexual exploitation amount to US$ 33.9 billion, with almost half - US$ 15.4 billion - realized in industrial countries. Asia is the region with the second highest profits (US$ 11.2 billion), followed by transition countries (US$ 3.5 billion), Latin America (US$ 2.1 billion), and Middle-East and North Africa (US$ 1.1 billion). Sub-Saharan Africa is the region where these criminal profits are lowest (US$ 0.5 billion). Whereas global profits from forced commercial sexual exploitation as a result of trafficking are US$ 27.8 billion, half of all profits - US$ 13.3 billion - are made with people trafficked into or within industrial countries. Second highest profits are in Asia (US$ 9.5 billion), followed by transition economies (US$ 3.2 billion), Middle-East and North Africa (US$ 1.0 billion), Latin America (US$ 0.6 billion) and Sub-Saharan Africa (US$ 0.1 billion) (Belser, 2005). More specifically, the global child trafficking market is valued at over US $12 billion a year (ILO, 2009).
Survivors of Child Trafficking

We have found that very little is still known about the particulars of those who get trafficked, and even less attention is paid to survivors of trafficking. According to Shigekane (2007), survivors who may have been controlled by abusive persons, travelled alone, endured trauma and isolation from their families, are known to need longer, more time-intensive and structured services; and not much has been reported about trafficking survivors’ integration into new communities and the types of programs and assistance they require to be independent and self-sufficient. The impact of trafficking on communities and effect of community responses on trafficking survivors have not been widely studied, and further research is needed to understand the process of survivor rehabilitation and community integration.

A systematic review of 20 publications (Macy & Johns, 2011) showed that survivors’ needs also change substantially over time. For example, survivors require different things as they move along the continuum from right after they are freed to when they begin to recover to when they start gaining independence and are reintegrated into society (Armstrong, 2008; Clawson et al., 2009). In another study, researchers propose that rehabilitation of survivors needs to be tailored, as the “one size fits all” model does not work for survivors of trafficking. As with any form of treatment for a profound traumatic stress disorder, rehabilitation and reintegration of rescued victims is a long-term process, and efforts should be made to consider the specific short and long-term needs of each individual victim based on their age, education, skills, etc. (Pandey, Tewari, & Bhowmick, 2013).

According to Tompkins (2014), in order for victims to be successfully rehabilitated, there are four needs that must be met: (1) a place of safety, (2) health care, (3) legal assistance, (4) job
or vocational training. The last provides them with skills, which will allow them to enter a
workforce, a necessary and instrumental step in reintegration into their home communities or
integration in a new society. The final necessity for sustainable rehabilitation is continued
security through law enforcement/police force, which is dependent on the communities and
governments where survivors reside. If the social and cultural norms of the survivor’s
environment are biased against trafficking victims, if government or police corruption is high, or
if there are no legal/policy structures in place to defend these victims, they face re-victimization.

Nanu (2010) proposes that long-term solutions need to address economic, political, and
social factors such as the rise of discrimination against marginalized groups and the informal
economy, with limited standards of labor and deficiencies in education. Moreover, to attain
complete rehabilitation and reintegration of survivors of trafficking, it is essential that non-profit
and grassroots organizations’ work together with the support of the government (Nanu, 2010).
Although governments and international organizations may have acquiesced to NGO pressure
and included the necessary anti-trafficking language in their legislation, each state in the U.S.
seems to operate differently, oftentimes neglecting the necessary policy measures that would end
trafficking (Davitti, 2010). It can be argued that until states take a stand and change their national
priorities, smaller initiatives (NGOs) will have to continue to provide both the preventative anti-
trafficking measures and rehabilitation and reintegration services for victims of (child)
trafficking.

However, according to the very scant literature on this topic, society has not made victim
rehabilitation and integration a priority. For example, even though Congress passed the
“Trafficking Victims Protection Act of 2000” (The Trafficking Act) and later, the “Trafficking
Act and the Trafficking Victims Protection Reauthorization Act of 2003” as a response to the 1995 finding of seventy-two Thai garment workers forced to work like slaves in California, they are mostly “prosecution-oriented.” Both Acts mainly serve to punish the trafficker and less to serve the victims (e.g., they could provide access to critical human services and immigration relief such as Medicaid, Refugee Cash Assistance, housing, food stamps, visas); and only do so conditionally, if the victims cooperate with the criminal investigation or prosecution of the trafficker (Haynes, 2004).

Although trafficking-specific organizations have developed over the years, such as The Coalition to Abolish Slavery and Trafficking (CAST) in LA who employ the “empowerment model” to help rehabilitate survivors and offer legal, housing and employment assistance, the number and types of human services organizations that serve trafficking survivors have grown to include those that traditionally serve domestic violence survivors, refugees, sex and migrant workers (Skigekane, 2007). But dual or multi-serving organizations cannot meet the very specific needs of trafficking victims, for many reasons. Survivors of trafficking, for example, may suffer from psychological trauma or lack the necessary life skills to adapt to their “new” life, which these organizations do not fully address. Research on long-term psychological effects on trafficking survivors shows that women and girls who are trafficked into the sex industry often report feeling depressed, hopeless and numb (Raymond, Hughes, & Gomez, 2001). In a first of its kind, a quantitative study documenting the health symptoms – physical and mental – of trafficked women and adolescent girls, the researchers found that more than half of the study participants suffered from post-traumatic stress disorder (Zimmerman et al., 2008).
Almost all anti-trafficking advocates agree that psychological care is important for survivors of trafficking. In fact, some victims of trafficking have been reported to desire counseling treatment, once they return to safety and normalcy, and some have a plethora of positive outcomes such as greater sense of self and strength (Aron, Zweig, & Newmark, 2006). Therefore, mental health providers have to be trained in effectively working with and treating victims of trauma, especially sexual and interpersonal trauma (Aron et al., 2006; Monzini, 2005 and Omelaniuk 2005; as cited in Yakushko, 2009). Mental health providers may also need to consult those pediatricians who intervened and treated the victims while they were still captive in order to understand the case fully and provide integrated care.

However, the associated stigma for having mental or emotional issues is often a barrier to seeking and getting treated (Skigekane, 2007). Therefore, when treatment is offered, especially to those who are from another country, the practice should be culturally sensitive and appropriate. Similarly, survivors of trafficking, especially if they are foreign, also require help with basic life skills such as using a bank, going to the grocery store, talking with authority, etc., because they may be traumatized, fearful, underage, illiterate or simply do not understand English. Thus, in addition to providing food and shelter to survivors, service organizations need to offer more in-depth and structured services to survivors.

Again, the paucity of research on existing provisions for survivors results in human service providers having to work with little information about this growing population (Clawson et al., 2009; Hodge, 2008 as cited in Macy & Johns, 2010). In addition, the literature that exists is fragmented and does not provide comprehensive guidelines or practice recommendations for human service providers. Moreover, if recommendations are provided, they focus on a single
aspect of aftercare services, such as assessment (Macy & Johns, 2010). Most importantly, however, there seems to be very little written about what the process of rehabilitation and reintegration actually looks like for girls and women who are survivors of sex trafficking.

Finally, trafficked people who return home suffer not only from the home-based problems they had left behind, but also new mental and physical health problems and other challenges such as stigma. For those who try to remain in the location to which they were trafficked, many encounter the insecurities and stresses found in asylum-seeking and refugee populations: life-threatening retaliation from those they seek to flee. People who manage to leave a trafficking situation, whether they return to their country of origin or not, are at a notable risk of being re-captured and trafficked again (Zimmerman & Stockl, 2012).

Health and Other Impacts of CSE/CST

Victims of trafficking may be subject to acts of violence which result in significant physical and mental health consequences. These may include “lifelong physical and psychological trauma, exposure to diseases including HIV, drug addiction, malnutrition that can lead to physical and emotional damage, and unsanitary and inhumane living conditions” (Parrot & Cummings, 2008, p. 33). Other forms of violence they suffer from include forced abortions, repeated beatings, torture, rape, and other physical abuse (Nguyen, 2010). In a U.S. study, 47% of sex-trafficked youth tested positive for an STI and 32% reported a history of a pregnancy at the time of their evaluation (Greenbaum & Crawford-Jakubiak, 2015). In another study, they found that up to 92% of trafficked youth reported using drugs and alcohol (Moore, Houck, Hirway, Barron, & Goldberg, 2017), possibly, as a mechanism to cope with their situation or as an inducement or forced activity by traffickers.
Victims of sex trafficking also suffer disproportionately from neurological symptoms, and other, general health conditions. In a study of female sex trafficking survivors, the researchers found that over 90% of respondents had at least one neurological symptom, with 82.1% specifically reporting memory problems, insomnia, or poor concentration, 53.8% reporting headaches or migraines and 34% reporting dizziness. They also found that 71.4% of respondents reported having at least one diet-related symptom, such as severe weight loss, malnutrition, loss of appetite, and eating disorders. The constant sexual exploitation and physical abuse also had other deleterious effects, such as physical injuries, usually to the head or face and even cardiovascular. The survivors also reported experiencing symptoms not typically associated with sexual abuse, such as some type of cardiovascular or respiratory issue (67.9%) and gastrointestinal symptoms (61.3%), while being trafficked. More than 50% of the respondents also reported having dental problems, with tooth loss as the most common ailment (Lederer & Wetzel 2014).

While the negative health consequences suffered by victims of CSE/CST may be dire, victims may also experience moderate to severe psychological trauma from mental, emotional, and psychological abuse such as post-traumatic stress disorder (PTSD), acute anxiety and depression (Deshpande & Nour, 2013). A study, which explored the association between traumatic events and mental health among girls and women trafficked for sexual exploitation, found that those who experienced sexual violence while trafficked had higher levels of PTSD. They also found that more time as victim of trafficking was associated with higher levels of depression and anxiety (Hossain, Zimmerman, Abas, Light, & Watts, 2010). Yakushko (2009) relates the results of a study in which the study participants, who were victims of sex trafficking,
reported feeling lost, fear, guilt, rage, a sense of betrayal, distrust, helplessness, shock and suspicion. Another study, conducted by the International Organization for Migration (IOM, 2002), showed that trafficked women may be/feel apathetic/resigned, extremely submissive to authority, unable to adapt in all social situations, and a loss of personal autonomy or initiative, and be more likely to use substances to self-medicate, inflict self-harm or commit suicide.

More specifically, a study of child and adolescent survivors of human trafficking, of whom 82% were female, showed that 56% screened positive for depression, 33% for an anxiety disorder and 26% for PTSD, while another 12% had tried to harm or kill themselves in the month before the interview (Kiss, Yun, Pocock, & Zimmerman, 2015). A different study, by Ottisova, Smith, Shetty, Stahl, Downs, and Oram (2018), showed even higher rates of deliberate self-harm (33%) and attempted suicide (27%).

**CSE/CST and Healthcare Providers**

Isaac, Solak and Giardino (2011) noted that victims of human trafficking may interact with healthcare providers while in captivity. Other studies have demonstrated that the health consequences of trafficking bring victims into contact with medical providers frequently, thus providing the opportunity for identification, early intervention, management of acute and long-term medical needs, and subsequently connecting victims with appropriate resources (Goldberg, Moore, Houck, Kaplan, & Barron, 2017; Lederer & Wetzel, 2014; Varma et al., 2015). Furthermore, there is specific evidence suggesting that medical care is sought by victims of CSE and CST. A study by Curtis et al. (2008), for instance, revealed that 82% of homeless and runaway youth in New York City, also involved in commercial sexual activity, had seen a medical provider within the past six months. In fact, a recent study showed that as many as
87.7% of victims of human trafficking have come into contact with the health care system while being trafficked (Lederer & Wetzel, 2014). This is a huge opportunity – one that healthcare providers cannot afford to miss.

However, this window of opportunity to identify and rescue a trafficked child is often missed. This happens for many reasons. One reason is that even in the presence of people who may be able to help, such as health care professionals, victims of trafficking rarely spontaneously disclose their situation because they are ashamed about their situation, distrustful of authority or terrified into silence by threats or abuse by trafficker. Traffickers often convince their victims that they will be arrested or deported if they disclose their situation to others. A common tactic by traffickers is to threaten that the victim’s loved ones will be harmed or killed if they try to escape from their current situation (Becker & Bechtel, 2015). Some children who may have been sold and then trafficked when they were babies or infants may not even be aware that the horrific conditions they endured were illegal. In situations of cross-border trafficking, victims may also be unable to identify themselves due to unfamiliarity with the regional language (Sorajjakool, 2013).

Secondly, victims of trafficking do not always present with symptoms that are considered to be associated with sex trafficking, and, therefore, are not probed further by clinicians. “At-risk or victimized patients, therefore, often go unnoticed or mistaken to have a different diagnosis during medical visits and are treated solely for their acutely reported health issues (e.g., substance abuse, STIs (Smith et al., 2009, as cited in Barron, Moore, & Goldberg, 2016). Consequently, patients leave health care appointments facing continued risk and/or further perpetration. Compounding this is that victims often present in the company of their trafficker,
who may represent him or herself as a family member or trusted friend (Becker & Bechtel, 2015). In these circumstances, physicians may not be able to get the entire picture or the truth from a victim and may feel threatened by the trafficker’s presence to press the issue.

Finally, it is also possible that pediatricians may be deceived, corrupted or terrorized by traffickers, and consequently may collude with traffickers and/or turn a blind eye to cases of trafficking.

Given all of the barriers described, above, evidence-based interventions and tools have to be developed to help healthcare providers properly identify and screen victims of CSE and CST. A review of existing screening instruments that could identify commercially sexually exploited children in an emergency department setting resulted in only two that were deemed highly feasible in that setting (Armstrong, 2017). One of these, a 6-item screening tool, was created after researchers ran a cross-sectional study of patients who were identified as CSE/CST victims. To determine a tool that is specific to CSE/CST victims, these patients were compared with similar-aged victims of acute sexual assault/abuse. Researchers found differences between the two groups for variables such as reproductive history and high-risk behaviors, to name a few (Greenbaum et al., 2018).

Other researchers have tried to develop methodological approaches to assess risk of CSE within high-risk youth. For instance, de Vries, Kafafian, Goggin, Bouchard, Goldfarb, and Farrell (2019) used regularization models to find that there are seven items that augment the risk of CSE among a high-risk youth population. These include stronger concerns about the following: (1) youths being approached to engage in CSEC, (2) sexual assault, (3) youths engaging with people known to be involved in CSEC, (4) youths seen in areas known for CSEC,
(5) youths having multiple sex partners, (6) youths traveling out of state, and (7) youths threatened in a way other than with physical or sexual assault (e.g., verbal assault) (p. 7).

Despite the growing knowledge of the existence and harms of CSE and CST, the identification of victims by healthcare practitioners is still a challenge. This not only impedes their ability to provide necessary services to victims (de Vries et al., 2019), but also to intervene when the opportunity presents itself. Healthcare clinicians should also be knowledgeable about the barriers trafficking victims face when seeking healthcare and trying to disclose their trafficked status and should provide trauma-informed care (Leopardi, Hovde, & Kullmann, 2020). Although there are surveys and screening tools currently available for trafficking, they are not necessarily evidence-based, applicable or practical (Leopardi et al., 2020). It is, therefore, recommended that additional research be conducted and more screening tools are developed to help health practitioners properly identify and screen for victims of CSE and CST.

Gaps in Provider Training and Knowledge

The most disappointing of reasons why victims of child trafficking may be missed while in the care of healthcare professionals – because it is preventable – is that healthcare providers may not be properly educated and/or trained about human trafficking. Given that pediatricians are sometimes the only advocates a child may have, missing the opportunity to intervene due to lack of training/education on how to assess and care for victims of child trafficking is a serious gap. Moreover, the type of education and training pediatricians receive on the issue of child sex trafficking or lack thereof has not yet been thoroughly studied or documented. A study by Beck et. al, surveyed physicians, but also physician assistants, nurses and social workers’ knowledge about their knowledge of sex trafficking and their experience with at-risk patients. They found
that those providers who were trained were more likely to “report sex trafficking as a major problem locally, to have encountered a victim in their practice, and to have greater confidence in their ability to identify victims” (Beck et al., 2015). They also found that health care providers have limited knowledge, confidence, and training, which impede effective identification and medical management of these patient victims (Beck et al., 2015).

Another study of Rhode Island pediatricians' knowledge about domestic minor sex trafficking found that the pediatricians of various specialties felt that they were not prepared well enough to respond to a DMST patient population and recommended increased training and education of the medical community (Moore et. al., 2016). Researchers Powell et al. (2017) inform us that that although many organizations have created curricula and offer trainings to healthcare practitioners in various clinical settings, there is a substantial variation in the content and method of teaching. Furthermore, the impact of the training has not been evaluated enough. For their study, after interviewing human trafficking experts and analyzing data from calls made by health care professionals to the National Human Trafficking Resource Center (NHTRC), they concluded that HT training curricula and its evaluation should be consistent and standardized and provided by an agency or institution at the national level.

The ability to identify, report and treat trafficked victims is essential, especially for pediatricians, who are sometimes the only ones trafficked children come in contact with while captive. According to Becker and Bechtel (2015), some “red flags” that pediatricians, especially those working in hospital emergency departments, should look for to identify trafficked children are: (a) the “friend” or “family member” who does not allow the patient to answer the clinician's questions and answers for the patient, or is reluctant to allow the patient to be alone in the
company of a medical professional; (b) reluctant or inconsistent explanations of injuries or illness by the patient; (c) patient’s inability to provide their address, identification or current whereabouts; (d) an anxious, depressed or nervous patient who avoids eye contact, is stoic or seems fearful at the mention of law enforcement or other governmental authorities.

Other victims may suffer from “Stockholm Syndrome” – a psychological response to captivity or abuse whereby a hostage or abuse victim bonds with their captors or abusers – and may think of and introduce their pimps as their boyfriend. If other information, such as a high number of sexual partners or unwanted pregnancies, seem suspect, it is best to separate the patient from the person accompanying them. To dispel suspicion, when examining a potential victim, physicians should remind the patient that tests are routine for all patients. Also, if the patient is non-English speaking, it is essential to have a trained interpreter. Finally, it is imperative for the clinician to convey his desire to help and to foster trust, to use words that the patient will understand, as some may not recognize terms such as trafficking or coercion and phrase questions in a respectful and non-judgmental way, even if the patient is reacting with hostility (Becker & Bechtel, 2015). This and other information should be consistently taught and tested in medical training programs throughout the U.S., so that trafficking victims do not go unnoticed.

**Main Theoretical Frameworks**

It should not surprise us that child trafficking has generated the kind of outrage and advocacy reminiscent of the abolitionist movements against slavery in the British Empire and the USA and the works of social workers, such Jane Addams, who exposed and challenged oppressive and unjust systems. Beliefs about human trafficking have created a veritable anti-
trafficking industry as well as a set of durable narratives (Anh, 2001, as cited in Kempadoo, 2015). These narratives have been used by law enforcement to control crime, by state and local policies and programs to regulate sex industries, and by other professionals and sectors to combat human trafficking.

Academic disciplines, for instance, from forensic sciences to social work have added their voices to the narrative and to what Emma Goldman coined a century ago as a “righteous cry” against human suffering. In 2010 alone,

approximately 140 academic books and journal articles were published that explicitly dealt with the intersection of human trafficking and prostitution and many more appeared dealing with subjects as modern-day slavery, organized crime, child prostitution, forced labor, and international labor migration. (Kempadoo, 2015)

Furthermore, a general awareness also grew among influential “states” that a more holistic approach towards tackling traffic was needed; one that combined the criminality of the issue along with the human rights aspects (Gallagher, 2001).

Accordingly, the best lenses to frame the issues that are pertinent to this study are that of public health and human rights. These two frameworks are closely related, as health is a human right and human trafficking affects the health of not only individuals, but entire communities and populations and, therefore, is a matter of public health. Furthermore, due to a paradigm shift, human trafficking, which is a global human rights violation, is finally being seen through a public health lens in addition to a criminal justice one. Finally, children and adolescents are robbed of their human rights when they are trafficked for CSE/CST and have the right to care from healthcare providers who are trained in providing evidence-based, trauma-informed, and culturally responsive care (Peck, Meadows-Oliver, Hays, & Maaks, 2020).
Public Health

Even though many international conventions and national legislations, such as the Palermo Protocol and the Trafficking Victims Protection Act acknowledge the importance of preventing human trafficking, it is not until recent history that trafficking has been approached with a public health lens (Greenbaum, 2020). In fact, the World Health Organization (WHO) stated in its World Report on Violence and Health that public health should play a role in the prevention of violence, which includes violence against children (World Health Organization [WHO], 2002). For this study, I focus on two aspects of the public health approach: a) primary prevention and b) generation of an evidence base to help inform policy and program development and implementation (Greenbaum, 2020). I also delve into how these approaches relate to education and training.

Primary Prevention

While protecting children from traffickers by bolstering criminal justice laws and prosecuting offenders is important, so are prevention efforts to stop this crime from happening in the first place. According to the WHO’s report (2002), primary prevention efforts to curb violence should be implemented by various professionals at multiple levels. In fact, the WHO states that it is the health sector’s duty to collect medical and legal evidence to identify perpetrators and substantiate victims’ accounts of their crime. Health, mental health and public health professionals can educate their patients/clients and their families about the risks of human trafficking and common recruitment strategies of traffickers (Greenbaum, Dodd, & McCracken, 2018), and also provide resources and education to other professionals and the public (Stoklosa, Grace, & Littenberg, 2015). In addition, these professionals can champion additional policies,
legislation and funding for programs and research that can help curb human trafficking and child sex trafficking in particular.

*Generation of an Evidence Base*

According to Greenbaum (2020), the public health approach to tackling human trafficking focuses on monitoring and evaluating policies, laws and programs and making changes based on studies. However, as previously described, there is a dearth of peer-reviewed publications on human trafficking, child sex trafficking, in general, the programs and initiatives that address these issues and formal outcome studies (Davy, 2016; Dell et al., 2019; as cited in Greenbaum, 2020). While there is learning to be done from studies on related issues such as child maltreatment, domestic violence and intimate partner violence, studies such as this one are necessary to define the particular aspects of human trafficking and provide specific information and recommendations to prevent and respond to human and child sex trafficking. In fact, several national health organizations, such as the American Public Health Association, have called upon health professionals to conduct research and inform human trafficking policies and prevention and treatment efforts (Greenbaum & Bodrick, 2017).

The utilization of the public health framework is important in the understanding of the themes of this study. The commercial sexual exploitation of children and child sex trafficking are gross human rights violations and global public health issues. Healthcare professionals such as pediatricians are often the only professionals with whom trafficked children come into contact and, therefore, it is imperative that are able to properly identify, screen, treat and report these victims. By doing so, they are not only providing the necessary health care to which a child has a right, but also intervening in time to possibly save a child’s life. While these services are
essential, pediatricians and medical/healthcare organizations such as the AAP should support the inclusion and standardization of curriculum on the topic of child sex trafficking, whether separately or as part of human trafficking curriculum. They should also advocate for broader policies and legislation that address children’s rights, victim services and the social determinants of health which increase one’s vulnerability to being trafficked (Greenbaum & Bodrick, 2017).

Finally, it is also important for pediatricians to conduct their own research on the topic and add to the evidence base for more work and education on this topic.

**Human Rights**

Child trafficking is one of the worst human rights violations one can imagine, as children are tortured and/or forced to perform sexual acts, sometimes at an age when they don’t even understand the act in which they are involved. In fact, the International Labor Organization’s Convention 182 (1999) defines sexual exploitation as one of the worst forms of child labor and states,

> commercial sexual exploitation of children is an abhorrent violation of the human rights of children and adolescents and a form of economic exploitation similar to slavery and forced labor, which also implies a crime on the part of those who use girls and boys and adolescents in the sex trade. (Commercial sexual exploitation of children, n.d.)

Not surprisingly, it is evident from the body of literature available from the major international organizations that combat child trafficking that the main theoretical framework upon which their work is founded is that of human rights. Most human rights theories draw from the U.N. Declaration on Human Rights. Even though the theory behind the U.N. Declaration of Human Rights is evolving and sometimes criticized as nebulous and controversial, the values that underlie it are widely accepted and frame global approaches to advancing the human rights of all persons regardless of age. Most of the literature focused on children who have been
trafficked starts from the basis of their human rights. The reason behind utilizing this perspective could be simply that “there is something deeply attractive in the idea that every person anywhere in the world, irrespective of citizenship or territorial legislation, has some basic rights…” (Sen, 2004). Or it could be the fact that to really see the problem of child sex trafficking for what it is, one needs to absolutely understand that this violation fundamentally, at its core, strips away a child’s right not to be exploited.

The “Universal Declaration of Human Rights,” proclaimed by the United Nations (UN) General Assembly in 1948, set, for the first time, a common standard of achievements for all peoples and nations, and fundamental human rights to be universally protected. The declaration has 30 unique “articles,” which are preceded by the preamble, “whereas recognition of the inherent dignity and of the equal and inalienable rights of all members of the human family is the foundation of freedom, justice and peace in the world.” The very first article in the Universal Declaration of Human Rights states that “all humans are born free and equal in dignity and rights.” This very right, however, is stolen from victims of human trafficking, as they are not free. Furthermore, the children’s rights also fall under basic, human rights, which, according to the UN’s “Universal Declaration of Human Rights” state that “No one shall be held in slavery or servitude; slavery and the slave trade shall be prohibited in all their forms.”

Furthermore, in 1959, the United Nations adopted and expanded the “Declaration of the Rights of the Child,” which was originally drafted by the British social reformer and founder of Save the Children, Eglantyne Jebb, and adopted by the League of Nations in 1924. The expanded version, with ten principles, essentially outlines basic rights that children should be afforded, such as food, shelter, means to normal development and to earn a livelihood, to name a few.
And, later, the United Nations (UN) also declared the Convention on the Rights of the Child (1989), which is a human rights treaty that specifies the civil, political, economic, social, health and cultural rights of children. The “Convention” defines a child as any human being under the age of eighteen, unless the age of majority is attained earlier under national legislation.

The “Convention” also specifically asks state parties that recognize the convention to:

“Protect children from all forms of sexual exploitation and abuse, including exploitative use in prostitution and pornography (Article 34).” Governments of countries that have ratified the Convention are bound to it by international law and are required to report to, and appear before, the United Nations Committee on the Rights of the Child periodically to be examined on their progress with regards to the advancement of the implementation of the Convention and the status of child rights in their country. Thankfully, many of the countries that either create the demand or supply for child sex trafficking have signed and ratified this convention; shamefully, the US is the only United Nations member state that has not ratified it.

Trafficking is often called “modern day slavery” because victims of trafficking are made to work and do things against their will and without pay that would make it possible for them to become autonomous and independent. They are defenseless, voiceless and stripped of all the things that define being human, such as having agency, the capacity of individuals to act independently and to make their own, free choices. As Amartya Sen explains in “Development as Freedom,”

There is a deep complementarity between individual agency and social arrangements. It is important to give simultaneous recognition to the centrality of individual freedom and to the force of social influences on the extent and reach of individual freedom. To counter the problems that we face, we have to see individual freedom as a social commitment.
Societies in which trafficking occurs, must truly embrace this idea that taking away one’s freedom of practicing their agency is an impingement on one’s human rights. Moreover, societies at large should try to engage in the kind of action that helps marginalized populations, such as women and children, to extricate themselves from the kinds of social norms that suffocate their agency.

Other Theoretical Frameworks

Gender and the World-wide Oppression of Women

Another important lens to explore to adequately appreciate of the issue of child sex trafficking is the gender lens. According to the latest UNODC report on human trafficking, women and girls are the main victims of sexual exploitation, which, again, is the most common form of trafficking. Why is this information not widely known or understood? The authors of “Half the Sky,” Nicholas Kristof and Sheryl WuDunn (2010), offer an explanation: “…we journalists tend to be good at covering events that happen on a particular day, but we slip at covering events that happen every day – such as the quotidian cruelties inflicted on women and girls” (p. 14). Hence, when a prominent government or political figure is associated with or arrested for a crime, it makes it onto a front-page article; however, the routine kidnapping and trafficking of 100,000 girls into brothels is not deemed newsworthy (Kristof & WuDunn, 2010). It can be further argued that this probably happens primarily because these women and girls are poor and uneducated.

Some of the other unthinkable atrocities described in “Half the Sky” that also happen frequently but do not make the news frequently include: the death of 39,000 babies, annually, in China because parents don’t give their daughters the same medical care and attention that they
give to their sons; “bride burning” of women once every two hours in India to punish her for reasons like insufficient dowry to her in-laws or to make way for her husband to re-marry; dousing of thousands of women and girls with kerosene in the twin cities of Islamabad and Rawalpindi, Pakistan, by their family members or in-laws for perceived disobedience. In his classic 1990 essay in the New York Review of Books, the Nobel Laureate, Amartya Sen wrote, “More than 100 million women are missing.” What he is alluding to is that in places where gender discrimination takes place, where women and girls are deeply undervalued and are not cared for, they vanish. For instance, one fifth of India’s girls can be counted as missing because mothers are less likely to vaccinate their daughters (Kristof & WuDunn, 2010).

While persons in the U.S. tend to believe gender discrimination is not so life-threatening or pervasive here, this assumptions merits another look. For instance, in the U.S., a rape is reported almost every six minutes, more than 87,000 rapes are committed each year and every fifth woman will be raped in her lifetime. Despite these statistics, violence against women in the U.S. is often overlooked and only occasionally attracts media attention when a celebrity is involved or if the crime’s details are horrid (Solnit, 2013). The widespread “rape culture” documented by Rebecca Solnit and others has only barely been tapped by the #Metoo movement. Other problems such as unprosecuted domestic violence, restrictive and poorly enforced child protection laws that expose children to emotional and physical abuse, with girl children in the U.S. more often sexually abused than boys (RAINN, n.d.), indicate that the U.S. has a long way to go before violence against women and girls is eradicated.

These crimes against girls and women directly violate the Convention on the Elimination of All Forms of Discrimination against Women, which was adopted by the United Nations
General Assembly in 1979 to bring women’s human rights concerns in the forefront. In its preamble, the Convention explicitly acknowledges that “extensive discrimination against women continues to exist” and emphasizes that such discrimination “violates the principles of equality of rights and respect for human dignity.” In addition to the civil rights and the legal status of women, the Convention, unlike any other human rights treaties, also deals with human reproduction and the impact of cultural factors on gender relations.

Moreover, these rights are not universal. For instance, although abortion was legally permitted in 98% of the world’s countries at the end of the twentieth century (Berer, 2017), in the U.S., as recently as 2019, nine states outlawed abortion altogether or forbid it past a certain point in pregnancy. Seven out of these nine states did not even include an exception for cases in which the pregnancy was a result of a rape (NPR, 2019). The systemic oppression of women by these types of laws is also a type of violence on women that denies them the right to choose when to start a family. In fact, access to safe, voluntary family planning is imperative to gender equality and women’s empowerment and a key factor in reducing poverty. However, an estimated 217 million women, especially in developing countries, do not have access to safe and effective family planning due to lack of information, services or support from their partners and communities. This perpetuates the cycle of poverty by disallowing them to create a better future for themselves, their families and their communities (UNFPA, n.d.).

**Ecological Perspective and the Role of Poverty**

In “Half the Sky,” Kristoff and Wudunn (2010) illustrate another significant lens in understanding child sex trafficking - poverty:

Paradoxically, it is the countries with the most straitlaced and sexually conservative societies, such as India, Pakistan and Iran that have disproportionately large numbers of
forced prostitutes…. The implicit social contract is that upper-class girls will keep their virtue, while young men will find satisfaction in the brothels. And the brothels will be staffed with slave girls trafficked from Nepal or Bangladesh or poor Indian villages. (p. 6)

A study exploring child trafficking in Southeast Asia utilizes the Ecological Perspective (Bronfenbrenner, 1986 as cited in Rafferty, 2013) as a possible framework to conceptualize factors associated with child trafficking because it emphasizes the relationship between people and their environment, rather than examining the victim in isolation. She suggests, “When applied to child trafficking, this framework could focus on child and family risk factors, characteristics of the community and broader contextual variables (Rafferty, 2013).

In fact, the context in which a child is born or grows up plays a crucial role in whether she may be trafficked. According to Scarpa (2006), in addition to factors such as extreme poverty and the paucity of resources, education, and employment opportunities to which the risk of being trafficked is strongly related, society’s marginalization of women and feminization of poverty renders women and children especially at risk of being trafficked. In “Half the Sky,” there is an example of an Indian woman named Meena, who was eight or nine years old when she was kidnapped and trafficked and taken to a brothel, where she was kept until she was mature enough to attract customers. She and the other girls at the brothel often had ten or more customers a day, seven days a week and were never paid or allowed outside of the brothel. Meena is from a poor, uneducated, low-caste family, as were most of the other victims. And, as the authors note, “As long as the girls are uneducated, low-caste peasants like Meena, society will look the other way – just as many antebellum Americans turned away from the horrors of slavery because the people being lashed looked different from them” (Kristof & WuDunn, 2010, p. 6).
Again, most girls who are sold are from poor families. And, in the US and probably other countries, “child victims come from multi-problem homes and have already experienced abuse and neglect” (Jordan, Patel, & Rapp, 2013). Their families, often complicit in the kidnapping or trafficking, may feel as though their only way out of extreme poverty is to “sell” their daughters for money. Sadly, very often, they do not even receive the “payment” from the duplicitous traffickers who make the trade and keep the money for themselves. If these families are educated about trafficking and its perils, perhaps they will be less likely to sell their daughters. Moreover, if girls and women, themselves, are given an education and taught about the risks associated with trafficking and about their self-worth, perhaps they will not be as eager to trust that uncle who lures them into the big city with the promise of a high paying job.

However, this education is not happening, and poverty persists all over the world. As Rafferty (2013) notes,

Despite some noteworthy progress in setting standards for the rights and treatment of children through international conventions and the enactment of comprehensive legislation and multilateral agreements, there is a need for coordinated and comprehensive international efforts that address the economic and social factors that continue to place children at risk for trafficking.

Criminal Justice

On December 27, 2000, representatives from more than 80 countries met in Palermo, Italy, to adopt a new international legal framework to fight transnational organized crime. One of the key issues addressed was human trafficking, for which they drafted the United Nations Protocol to Prevent, Suppress and Punish Trafficking in Persons, Especially Women and Children. Since then, the legal and political landscape around this issue has changed dramatically. For instance, more than 100 states have formally signed the treaty, many regions
have added even more stringent clauses to the UN Trafficking Protocol (2000), including the Recommended Principles and Guidelines on Human Rights and Human Trafficking (United Nations Trafficking Principles and Guidelines, 2002), and the Council of Europe Convention on Action against Trafficking (European Trafficking Convention, 2005).

Many countries have even passed their own trafficking laws and some, like the United States, have even placed trafficking on their foreign policy agenda. For example, the U.S. Government established the Trafficking in Persons report that identifies countries with a significant trafficking problem and assesses their response. According to the Victims of Trafficking and Violence Protection ACT (VTVPA) of 2000, failure of any of those countries to follow the standards set out in U.S. legislation can lead to “imposition of sanctions and U.S. interference in that country’s relationship with the major international banks and financial institutions” (Gallagher & Holmes, 2008).

The wave of law and policy around trafficking allowed the international community to arrive at a legal consensus on the nature of the trafficking problem and its definition. Moreover, it also allowed more influential countries of destination to agree on how best to address trafficking. The key elements of this consensus are that trafficking in all its forms should be criminalized; that traffickers should be prosecuted and punished; that there should be a strengthening of national border controls to fight trafficking; and, in cases of cross-border trafficking, that cross-border collaboration should aim to ensure that there are no safe havens for traffickers. (Gallagher & Holmes, 2008)

However, while laws and acts such as the Trafficking Victims Protections Act of 2000 define all minors under age 18 involved in commercial sex acts as victims, state and local systems continue to prosecute prostituted minors as offenders (Reid & Jones, 2011). In a national
field research study of DMST, funded by the U.S. DOJ and conducted by Shared Hope International, the researchers investigated the three P’s: prevention, prosecution and protection of victims of trafficking. Among other things, their findings were that victims are often misidentified at all levels of first responders, including law enforcement, to the intake process in youth shelters to the court’s judgement of the victim as a delinquent.

These misidentifications lead to the victims of DMST to be processed as juvenile delinquents or adult prostitutes and not as victims of DMST. These victims then are taken to detention facilities or juvenile justice rehabilitative programs from which they run, right back to their captors, due to the unique trauma bonding that occurs between a victim and her trafficker, and the inadequate responsiveness of the rehabilitative programs to the DMST victims’ unique needs (Smith et al., 2009, as cited in Barron, Moore, & Goldberg, 2016). DMST victims require a host of psychological and social services that differ profoundly from services necessary from other groups. When mishandling by police and courts is accompanied by inadequate rehabilitation program or even jail, it is not surprising the traumatized victims might believe their captors have more to offer.

Adding to this dilemma, is the fact that the buyers of sex, or those who demand trafficked children are often missing from the conversation. In fact,

little research on trafficking has focused on the so-called customer as a root cause of trafficking and sexual exploitation. And even less legislation has penalized the male customer whose right to buy women and children for prostitution activities remains unquestioned. (Raymond, 2004)

An International Organization for Migration (IOM) study attempted to determine the demand for trafficked women and found the following: men from India, Italy, Thailand, and Japan looked for “youthful” women; over 75% of all men interviewed had a preference for women under age 25;
22% preferred girls under age 18; approximately 50% had purchased sex acts from foreign
prostitutes and about a third of the men surveyed believed that foreign women were “cheaper and
more malleable than local women (Hughes, 2004).

Although several countries, such as Sweden, Finland, Macedonia and Croatia, have
passed laws that criminalize men who purchase sex, there are too many places in which the
“buying” of sex happens out in the open, without any consequence. In countries like Thailand,
Sri Lanka, Philippines and Belize where child prostitutes are aplenty, European sex tourists seek
girls for sex in broad daylight. Until and unless more is done to prosecute those who demand sex
from children, this will continue to plague nations in which children are seen as commodities.
CHAPTER THREE

METHODOLOGY

This chapter seeks to introduce the research methods utilized in this quantitative, exploratory study designed to understand the breadth and depth of education and training, and, thereby, knowledge, skills and attitudes of pediatricians in the U.S. in properly identifying, assessing, treating and reporting victims of child trafficking in the clinical setting. We also wanted to test the hypothesis that certain amount and types of training would not only lead to an increase in knowledge and comfort, but also a decrease in perceived barriers to performing those activities. This methodology allowed us to explore a topic which is still relatively new and test a few hypotheses.

The study’s design, research questions, measurement, data collection, sample recruitment and data analysis methods are detailed in this chapter.

Research Question and Design

This was a quantitative study designed to understand: how well, if at all, are U.S. pediatricians trained to identify/screen, assess, treat and report a victim of child sex trafficking (CST) in a clinical setting by assessing the following: (1) prior training and experiences, (2) self-reported knowledge and comfort, (3) perceived barriers, and (4) performance on medical decision-making questions regarding the management of child sex trafficking in the clinical setting. We also looked at the following to help answer the main research question: if/how prior training, hours and type of training, years of practice, gender and ethnicity were related
to pediatricians’ knowledge of, comfort with and/or barriers. Since there had been relatively little research on this specific topic at the time this study was conducted and we were trying to learn more about the education and training of pediatricians to inform future, more extensive studies, we took an exploratory approach (DeCarlo, 2018).

The study’s hypotheses are as follows:

H1: Pediatricians with prior training, more hours of training and more years of practice will have higher levels of knowledge and comfort and/or fewer perceived barriers to screening, treating and reporting CST victims;

H2: Certain training methods will result in more knowledge and comfort and fewer barriers;

H3: Pediatricians’ gender and ethnicity are not related to knowledge, comfort or perceived barriers.

**Measurement and Data Collection**

This exploratory study used an anonymous, online survey, developed using the Qualtrics survey tool and modeled on previously established surveys that evaluated the knowledge, comfort, training, and barriers providers face when interacting with patients who have experienced child abuse (Starling, Heisler, Paulson, & Youmans, 2008), domestic violence (McGrath et al., 1997) and domestic minor sex trafficking (Barron et al., 2016), which may have been developed using other tools. All questions in the survey were co-developed and vetted by two child abuse physicians, who are subject matter experts (SMEs) on the topic of child trafficking, in general, and CSE/CST, in particular; and who are experienced in evaluating patients for involvement in DMST. The instrument was finalized after being reviewed by the
SMEs and two tenured professors at the School of Social Work at Loyola University Chicago, who are on the dissertation committee, using an iterative process.

The survey was titled “Child Sex Trafficking Assessment and Resources Survey,” and was used to mainly collect quantitative data via multiple-choice, dichotomous, scaling and open-ended questions that addressed the following categories:

1. Demographic data from the participants: current phase of medical training, type of pediatric specialty/subspecialty, years of practice as a practicing physician, primary work setting, workplace zip code, the name of the institution where they received their medical degree, gender and ethnicity;

2. Participants’ education: questions about the type (lectures, webinars, certifications, bedside discussions, conferences, etc.) and number of hours of DMST-specific training they had completed in medical school, during residency, or during fellowship and beyond. We also asked how they felt about the amount of education they received about child trafficking to prepare them for their practice and what, if anything, they would like to add in their training;

3. Participants’ self-perceived knowledge about the medical management (e.g., proper identification, interpretation of medical exams, necessary medical workup, treatment, reporting) of patients who are victims of child sex trafficking. A knowledge scale was used to measure participants’ self-reported knowledge;

4. Participants’ comfort level (self-perceived competence) with screening, interviewing, examining, reporting patients who may be involved in sex trafficking;

5. Participants perceived barrier(s) to (a) identifying/screening, (b) treating, and (c) reporting patients who may have been victims of child sex-trafficking. These questions allowed for
multiple answers from a list of choices which included lack of training or experience and/or personal discomfort with the topic. The first two barrier questions also allowed for free-text answers; and,

6. Three clinical vignette questions to gauge participants’ actual knowledge regarding medical decision making which the subject matter experts on the team helped construct based on a comprehensive literature review and clinical experience.

**Study Sample**

The study’s population of interest was practicing pediatricians in the US and our sample was recruited through the American Academy of Pediatrics (AAP), as they are the largest, centralized and most established national member organization for pediatricians. Any and all members of the AAP were eligible to participate in the study, including and not limited to medical students, residents, fellows and attending physicians. And, since we could not control to whom our study was sent to only include pediatricians, the survey may have also been sent to allied health professionals and international physicians, who are not our population of interest, but are part of AAP’s membership. Ultimately, 127 participants opted to take the survey, the majority of whom were attending physicians (73%), followed by residents (14%), fellows (10%) and medical students (3%).

**Recruitment**

The two pediatricians who served as the study’s SMEs connected the researcher with their contact at the AAP, who agreed to help recruit study participants from AAP, on the researcher’s behalf. After consulting with the AAP contact, it was determined that neither we nor she could contact AAP members directly about the survey. In fact, the only way to survey AAP
members was to share study information with AAP “Chapter Leaders” through their weekly update and ask them to share the study details with their membership, encouraging them to participate. Therefore, we had to create both the memo to be sent to the 63 AAP Chapter Leaders, and the email they would then send to their members, if they thought the survey was worth forwarding. We also created reminder emails to be sent to Chapter Leaders and their members one month after the first email was sent.

Upon receiving approval from the Loyola University Chicago IRB, all documents were sent to the AAP contact via Dropbox. After a few unsuccessful attempts, our contact was able to confirm that the memo, which included information about the study and a link to the study, was sent to all 63 Chapter Chairs on June 4, 2019 via their weekly newsletter. Our assumption was that all 63 Chapter Chairs would see the announcement/memo and all of them would decide to share it with their membership using the email we drafted. However, without any direct contact, we had no way to know how many Chapter Chairs saw the announcement and how many passed it onto their membership. Therefore, we had no way of knowing how many chapter members actually received the request to participate and could not calculate a survey response rate.

For those who received the invitation to participate in the study and decided to do so, upon clicking on the link within the email, they were taken to the anonymous, online study; which begins by asking participants to carefully read about the study’s goals and other information and agree to participate. The consent form includes information such as the study’s aims and research questions, the amount of time necessary to complete the study, the participants’ rights (e.g., not needing to answer every question and opting out at any point during the survey), the risks and benefits of participating and the researcher’s contact information. After
reading all of the information, if they agreed to participate, they were asked to click a button to continue onto the actual survey questions.

After three months of data collection (from early June 2019 to late August 2019) and 100 responses, the researchers decided to amend the IRB to include an email to be sent directly to AAP Chapter/District Executive Directors using email addresses that were publicly available on the AAP website. These emails were sent to 62 individuals on September 17, 2019; and after two more months of data collection – from mid-September, 2019 to mid-November, 2019 - the study was closed with a total of 127 who opted into the study.

Data Analysis

Except for a few questions that allowed participants to write in an answer, almost all data collected via the Qualtrics survey instrument were in quantitative form (e.g., how many pediatricians express discomfort with trafficking, etc.). The anonymous data were recorded and stored privately in Qualtrics until the researcher was ready to conduct data analysis. Excel was utilized to perform descriptive statistical analysis of the quantitative and qualitative data. Before starting our bi-variate analysis, we conducted a test of normality to determine whether we would use parametric or non-parametric tests. We ran descriptive analysis showing skewness and kurtosis along with visual graphs such as the histogram; both showed that the data was not normally distributed. Therefore, we used nonparametric tests for bivariate analyses in SPSS, which included the following:

1. Chi-Square test of independence to discover if there was a relationship between the dichotomous, nominal level variables

2. Mann Whitney U test between our dichotomous, nominal and ordinal variables
3. Spearman's Correlation to test the strength and direction of the relationship between our continuous, nominal level variables and ordinal level variables.

These are the variables that were tested:

1. Dichotomous, nominal level variables: (a) training/education (dichotomous: Y/N); (b) type of training (each type dichotomized for Y/N; (c) gender (dichotomous: M/F); (d) ethnicity (dichotomized into white and non-white because of the lack of non-white ethnicities); (e) barriers to identifying/screening, treating and reporting (each barrier dichotomized to Y/N); and (f) type of additional training desired.

2. Ordinal level variables: (a) knowledge (1-4 Likert scale); (b) comfort (1-4 Likert scale); and (c) years as a practicing physician

3. Continuous/nominal variable: (a) number of training hours.
CHAPTER FOUR

RESULTS

This chapter contains the results from the exploratory, quantitative study conducted to answer the following research questions:

RQ1: How, if at all, is pediatricians’ knowledge of identifying, assessing, treating and reporting child sex-trafficked victims related to the amount and type of education and/or training they received on child sex trafficking?

RQ2: How, if at all, is pediatricians’ comfort with identifying, assessing, treating and reporting child sex-trafficked victims related to the amount and type of education and/or training they received on child sex trafficking?

RQ3: How, if at all, are pediatricians’ perceived barriers to screening, treating and reporting of child sex-trafficked victims related to the amount and type of education and/or training they received on child sex trafficking?

RQ4: Is it possible to predict which form of education leads to better knowledge of and more comfort with the identification, assessment, treatment and reporting of child sex trafficking victims?

This chapter begins with the presentation of the demographics of the sample and description of the major variables in the study. Next, the chapter presents the results from the bivariate analyses conducted to determine the relationships between various variables and the knowledge, comfort and barriers variables. Tables and graphs are used to visually present the
Next, the questions and responses from the three clinical vignettes are presented. The chapter concludes with a brief summary of the results.

**Descriptive Statistics**

**Demographic Information**

A summary of the demographic data is shown in Table 1. The majority of the sample (73%) were attending physicians, followed by residents (14%), fellows (10%) and medical students (3%). An overwhelming majority (87%) reported a pediatric medical specialty and of those who listed a subspecialty (n=48), the two most common were neonatologists (23%) and critical care (19%).

Nearly half of the subjects (45%) had been practicing medicine for over 15 years, followed by those who have been practicing between 1 and 5 years (26%), 6 and 10 years (16%), less than a year (8%) and between 11 and 15 years (5%). When asked about primary place of practice (multiple responses were allowed), the participants indicated the following: hospital inpatient (33%), community clinic (18%), private practice (16%), hospital-based clinic (15%), emergency department (9%) and other (9%). Finally, a majority of the participants self-identified as White (70%) and female (72%).
Table 1. Sample Demographics

<table>
<thead>
<tr>
<th>Career Phase (n=123)</th>
<th>Number</th>
<th>% of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical Student</td>
<td>4</td>
<td>3%</td>
</tr>
<tr>
<td>Resident</td>
<td>17</td>
<td>14%</td>
</tr>
<tr>
<td>Attending</td>
<td>90</td>
<td>73%</td>
</tr>
<tr>
<td>Fellow</td>
<td>12</td>
<td>10%</td>
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<table>
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<tr>
<th>Specialty (n=114)</th>
<th>Number</th>
<th>%</th>
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</thead>
<tbody>
<tr>
<td>Pediatric</td>
<td>99</td>
<td>87%</td>
</tr>
<tr>
<td>Med/Peds</td>
<td>5</td>
<td>4%</td>
</tr>
<tr>
<td>Pediatric Emergency</td>
<td>6</td>
<td>5%</td>
</tr>
<tr>
<td>Other</td>
<td>4</td>
<td>4%</td>
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</tbody>
</table>

<table>
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<tr>
<th>Years of Experience (n=114)</th>
<th>Number</th>
<th>%</th>
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</thead>
<tbody>
<tr>
<td>Less than 1 year</td>
<td>9</td>
<td>8%</td>
</tr>
<tr>
<td>1-5 years</td>
<td>30</td>
<td>26%</td>
</tr>
<tr>
<td>6-10 years</td>
<td>18</td>
<td>16%</td>
</tr>
<tr>
<td>11-15 years</td>
<td>6</td>
<td>5%</td>
</tr>
<tr>
<td>Over 15 years</td>
<td>51</td>
<td>45%</td>
</tr>
</tbody>
</table>

*Primary Practice Setting (n=150) |
| Private Practice            | 24     | 16%   |
| Community Office/Clinic     | 27     | 18%   |
| Emergency Department        | 13     | 9%    |
| Hospital Inpatient          | 50     | 33%   |
| Hospital Based Clinic       | 23     | 15%   |
| Other                       | 13     | 9%    |

<table>
<thead>
<tr>
<th>Ethnicity (n=115)</th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>81</td>
<td>70%</td>
</tr>
<tr>
<td>Black or African American</td>
<td>2</td>
<td>2%</td>
</tr>
<tr>
<td>Asian</td>
<td>17</td>
<td>15%</td>
</tr>
<tr>
<td>Other</td>
<td>15</td>
<td>13%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gender (n=117)</th>
<th>Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>33</td>
<td>37%</td>
</tr>
<tr>
<td>Female</td>
<td>84</td>
<td>72%</td>
</tr>
</tbody>
</table>

Note. Respondents were allowed to choose >1 clinical setting; therefore, totals for individual questions may not equal 127.
Education and Training

Table 2 displays respondents’ answers to questions about whether they received any education or training on child sex trafficking, where they received the training, and the type of education and/or training they received. The majority of respondents (60%) reported not having any education or training on CST. Most participants reported receiving their education/training in “other” venues (36%) of which AAP-sponsored or other CME events, grand rounds and conferences were popular answers followed by residency programs (31%), medical school (16%) and fellowship (7%).

Table 2 also depicts the responses to the estimated number of hours of education/training question which varied widely with a range from 1 to 150, Mean = 9.8, Median = 3 and SD = 26.6 Most respondents (73%) said they would have liked to have more education, while the remainder felt they had an adequate amount of education on the topic of child sex trafficking. No one said they would have liked less education. When asked what they would like to have added to their education or training, 47% wanted more lectures, 27% wanted more bedside training, 14% said “other” (which included small group discussions, hands-on workshops, webinars, etc.) and 12% said more certifications.
Table 2. Summary of Education and Training Responses

<table>
<thead>
<tr>
<th>Child Sex Trafficking Training (n=118)</th>
<th>Number</th>
<th>% of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>47</td>
<td>40%</td>
</tr>
<tr>
<td>No</td>
<td>71</td>
<td>60%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Place of Training Received (n=58)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical School</td>
</tr>
<tr>
<td>Residency Program</td>
</tr>
<tr>
<td>Fellowship</td>
</tr>
<tr>
<td>Other</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type of Training Received (n=81)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lectures(s) in medical school</td>
</tr>
<tr>
<td>Conference Session(s)</td>
</tr>
<tr>
<td>Bedside or patient related discussions</td>
</tr>
<tr>
<td>Webinar(s)</td>
</tr>
<tr>
<td>Certification program(s) (online or in-person)</td>
</tr>
<tr>
<td>Other</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Satisfaction with Amount of Education Received (n=45)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Would have liked to receive more education</td>
</tr>
<tr>
<td>Received an adequate amount of education</td>
</tr>
<tr>
<td>Would have liked to receive less education</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type of Additional Training Desired (n=51)</th>
</tr>
</thead>
<tbody>
<tr>
<td>More lectures</td>
</tr>
<tr>
<td>More bedside training</td>
</tr>
<tr>
<td>More certifications</td>
</tr>
<tr>
<td>Other</td>
</tr>
</tbody>
</table>

**Self-reported Knowledge**

Figure 1 is a graphical representation of the responses we received for the self-reported knowledge of various aspects of managing a CST victim in the clinical setting. Results show that almost 70% of participants felt that they were not at all knowledgeable or only slightly
knowledgeable about how to identify, interpret the medical exam of, the necessary medical
workup and treatment of a CST patient. Similarly, almost 80% of our sample reported that they
were not at all knowledgeable or only slightly knowledgeable about identifying resources for a
sex-trafficked patient; and 90% responded that they were not at all knowledgeable or slightly
knowledgeable about management plans for a sex-trafficked patient.

In other words, a vast majority of pediatricians felt that they did not possess adequate
knowledge of critical areas involved in the management of a CST patient in the clinical setting.
The only measures for which more participants reported being very and moderately
knowledgeable were when to report a sex-trafficked patient to Child Protective Services (32%)
or the police (26%).

Finally, we asked the research participants how many patients they evaluated with the
concern for sex trafficking in the last six months; and, most of them (80%) reported zero (range
= 0 – 15, Mean = 0.5, Median = 0, SD =1.7). However, given that most participants worked in
the in-patient department of a hospital and also reported not being able to identify a trafficking
victim, these numbers may underrepresent the actual number of trafficking victims who seek
medical attention. This is discussed further in Chapter Five.
Next, we asked our participants to self-report how comfortable they felt performing tasks that our clinician subject matter experts felt were essential to caring for a patient that may be a victim of sex trafficking. Results are shown in Figure 2. In summary, close to 70% of the pediatricians surveyed felt either not at all comfortable or only slightly comfortable screening or interviewing a potentially sex-trafficked child and nearly 60% felt similarly about performing a medical exam on a sex-trafficked victim.

One measure that had more responses in the very comfortable and moderately comfortable categories was speaking with Child Protective Services for sex-trafficked patients, for which almost 60% of respondents felt moderately or very comfortable. For the final measure of speaking with police about a sex-trafficked patient, the responses were spread pretty evenly, with 17% feeling not at all comfortable or very comfortable, 23% reported feeling slightly comfortable, and 25% felt moderately comfortable; the rest were neutral.
Figure 2. Self-reported Comfort Scale

**Perceived Barriers**

Figure 3 displays the responses to the question about participants’ perceived barriers to identifying or screening sex-trafficked patients. Multiple responses were allowed. Lack of experience and training were the major barriers.

*Note:* Participants could select more than one response.

Figure 3. Perceived Barriers to Screening Child Sex Trafficking
Figure 4 presents the participants’ responses on perceived barriers to treating a patient for child sex trafficking. Multiple responses were allowed. In summary, nearly half of the participants reported either “lack of experience” (24%) or “lack of training” (22%) as barriers in treating a child for sex trafficking. In addition, “uncertainty about medical treatment (12%) and “medical evaluation” (12%) were also mentioned.

Figure 4. Perceived Barriers to Treating Child Sex Trafficking

Figure 5 displays responses to our final multiple-choice question which asked participants about any issues/barriers they might have experienced related to reporting of sex-
trafficked patients. Multiple responses were allowed and N=144. Over half of the participants (54%) reported not experiencing any issues related to reporting of trafficked victims. The top three choices were fear of patient not returning to care due to reporting (13%), fear of further endangering the child (11%), fear of inaction by authorities (8%). Lesser common responses can be found in Figure 5.

Note: Participants could select more than one response.

Figure 5. Self-reported Issues Experienced with Reporting Child Sex Trafficking

Clinical Knowledge

The final three questions were clinical vignettes that assessed the study participant’s general knowledge about child sex trafficking. The vignettes were an opportunity to apply their knowledge to clinical descriptions of possible child sex trafficking situations.

Figure 6 shows that the vast majority of the participants (72%) correctly identified the youth as a victim of child sex trafficking. Almost a quarter of the respondents (21.1%) chose the
incorrect answer choice, “The youth is a prostitute, not a victim of trafficking, because he is choosing to take part in these activities, not being forced.”

![Vignette 1](image)

**Figure 6. Clinical Vignette #1 and Responses**

Figure 7 illustrates the second clinical vignette question and the five answer choices from which respondents were asked to “select all that apply.” The four correct answers have a check mark, in the figure, below. Most participants chose the correct answers for this scenario; and almost 50%, correctly chose all four responses.
Figure 7. Clinical Vignette #2 and Responses

Figure 8 displays the final clinical vignette question and the seven answer choices from which the participants were instructed to “select all that apply.” To get this answer completely right, participants would have had to correctly identify that all of the “characters” could be “pimps” of a trafficked teenager. Of the 108 participants that answered this question, 43 (38%) correctly identified all of the characters, below, as traffickers.
We ran a series of Chi-square test of independence to analyze if having prior training was related to perceived barriers to screening, treatment and reporting CST. We set significance at $p < .05$. Cramer's V ranges in value from 0 to +1 with a value of 0 indicating no association to a value of 1 indicating complete association. Unfortunately, due to a lack of responses for some barrier choices within each of the three barrier types, we were unable to meet the expected cell frequencies required to complete the chi-square test for those choices. For those choices that did not violate this requirement, the results are as follows:
Training and Screening Barriers

Results show that there is a statistically significant, moderate association between prior training and the barriers “lack of training” ($\chi^2(9) = 15.996, p = 0.000$ and Cramer’s $V = 0.368$) and “lack of experience” ($\chi^2(9) = 6.019, p = 0.014$ and Cramer’s $V = 0.226$). In other words, whether or not you experienced these two barriers to screening was related to whether or not you had prior training.

Training and Treatment Barriers

The barriers “lack of training,” “lack of experience,” “lack of screening time,” “uncertainty around medical treatment,” “uncertainty around medical evaluation,” “uncertainty around mandatory reporting laws,” and “insufficient community resources” met the cell frequency minimum for the Chi-Square test and had statistically significant moderate to high association with prior training with Cramer’s $V$ between 0.213 and 0.327 and p-values between 0.000 and 0.021. Therefore, whether or not you experienced those barriers was related to whether or not you had prior training.

Training and Reporting Barriers

The results from the Chi-square test showed that none of the barriers to reporting had significant association with prior training. Therefore, whether or not you perceived barriers to reporting is not related to whether or not you had prior training.

Training Type and Barriers

We ran Chi-square tests of independence to analyze if the type of training the pediatricians had (e.g., lectures, conferences, bedside discussions, webinars, certifications and other) was related to their perceived barriers to screening, treatment or reporting for child sex
trafficking. We set significance at $p < 0.05$. Cramer's $V$ ranges in value from 0 to +1 with a value of 0 indicating no association to a value of 1 indicating complete association. Unfortunately, due to a lack of responses for some barrier choices within each of the three barrier types, we were unable to meet the expected cell frequencies required to complete the chi-square test for those choices. For the choices that did not violate this requirement, the results are as follows:

**Training Type and Screening Barriers**

Only the barrier “lack of training” was found to have a moderate, statistically significant association with lectures ($\chi^2(9) = 5.047$, $p = 0.025$ and Cramer’s $V = 0.200$) and conferences ($\chi^2(9) = 13.092$, $p = 0.000$ and Cramer’s $V = 0.321$). In other words, whether or not the physician perceived the lack of training as a barrier to screening a victim of CST was moderately related to whether or not s/he had attained training through lectures or conferences.

**Training Type and Treatment Barriers**

The results showed that there is no statistically significant association between any training type and any treatment barriers except for the following: whether or not a pediatrician was trained via lectures had a moderate, statistically significant association with the barriers “uncertainty around medical evaluation” ($\chi^2(9) = 5.878$, $p = 0.015$ and Cramer’s $V = 0.216$) and “uncertainty around medical treatment” ($\chi^2(9) = 9.549$, $p = 0.002$ and Cramer’s $V = 0.275$); and training via conferences had a moderate, statistically significant association with the treatment barriers, “lack of training” ($\chi^2(9) = 7.655$, $p = 0.006$ and Cramer’s $V = 0.246$) and “uncertainty around medical treatment” ($\chi^2(9) = 3.934$, $p = 0.047$ and Cramer’s $V = 0.176$).
**Training Type and Reporting Barriers**

None of the reporting barriers met the cell frequency minimum for the Chi-square test and, therefore, we could not determine the association between training type and reporting barriers.

**Gender/Ethnicity and Barriers**

We ran Chi-square tests of independence to analyze whether gender (male/female) and ethnicity (White/Non-White) were related to pediatricians’ self-reported barriers in the screening, treatment or reporting of child sex trafficking victims in the clinical setting. The results showed that there is no statistically significant association between either gender or ethnicity and barriers to screening, treatment or reporting.

**Bi-Variate Analysis of Training and Knowledge**

We ran a series of Mann-Whitney U tests for bi-variate analysis of the training, gender and ethnicity (dichotomized nominal variables) and level of knowledge (ordinal level variable).

**Training and Knowledge**

A series of Mann-Whitney U tests were run to determine if there were differences in knowledge of various aspects of dealing with a victim of child sex trafficking in the clinical setting, between those with prior training in child sex trafficking and those without. The knowledge variables’ responses were a four-point on the Likert scale (Not at all Knowledgeable, slightly knowledgeable, moderately knowledgeable, Very Knowledgeable). This analysis uses mean ranks to compare responses between the two groups of training (Yes/No).

With the exception question #6 – “When to report to police for a patient that may be involved in sex trafficking,” – statistically significant differences between mean ranks of the two
groups (those with and without prior training) were found across the remaining knowledge areas. The mean ranks were higher for those with training across all knowledge items. Thus, those with training were significantly more likely to report higher levels of knowledge in all of those seven knowledge areas, below.

As an example, you can see in Table 3, below, that for ‘Knowledge’ Question #1 – Identifying a victim of child sex trafficking – we found that the mean rank for those with training (70.42), was higher than those with ‘no training’ (36.81) and \( U = 1902.50, z = 6.154, p < .001 \). Therefore, those with training were significantly more likely to report higher levels of knowledge of how to identify a CST victim.

**Table 3. Mann Whitney U Table for Knowledge across Training (Yes/No)**

<table>
<thead>
<tr>
<th>Q#</th>
<th>Question</th>
<th>U</th>
<th>z</th>
<th>Mean Rank</th>
<th>Mean Rank</th>
<th>Sig. P</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Identifying a victim of child sex trafficking</td>
<td>1902.50</td>
<td>6.154</td>
<td>36.81</td>
<td>70.42</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Interpreting the medical exam of a patient that may be involved in sex trafficking</td>
<td>1383.50</td>
<td>4.287</td>
<td>37.55</td>
<td>60.63</td>
<td>0.000</td>
</tr>
<tr>
<td>2</td>
<td>Medical workup necessary for a patient that may be involved in sex trafficking</td>
<td>2141.00</td>
<td>6.542</td>
<td>36.97</td>
<td>74.03</td>
<td>0.000</td>
</tr>
<tr>
<td>3</td>
<td>The necessary treatment for a patient that may be involved in sex trafficking</td>
<td>1664.50</td>
<td>5.297</td>
<td>36.79</td>
<td>65.56</td>
<td>0.000</td>
</tr>
<tr>
<td>4</td>
<td>When to report to Child Protective Services for a patient that may be involved in sex trafficking</td>
<td>1556.00</td>
<td>2.657</td>
<td>43.70</td>
<td>58.55</td>
<td>0.008</td>
</tr>
<tr>
<td>5</td>
<td>When to report to police for a patient that may be involved in sex trafficking</td>
<td>1298.50</td>
<td>1.627</td>
<td>44.31</td>
<td>53.29</td>
<td>0.104</td>
</tr>
<tr>
<td>6</td>
<td>Identifying management plans for a patient that may be involved in sex trafficking</td>
<td>1816.00</td>
<td>4.166</td>
<td>43.17</td>
<td>65.90</td>
<td>0.000</td>
</tr>
<tr>
<td>7</td>
<td>Identifying resources for a patient that may be involved in sex trafficking</td>
<td>1635.50</td>
<td>4.841</td>
<td>40.04</td>
<td>65.60</td>
<td>0.000</td>
</tr>
</tbody>
</table>

*Note. Asymptotic significances are displayed. The significance level is .050.*
Training Type and Knowledge

We ran a series of Mann-Whitney U tests to determine if there were differences in knowledge of child sex trafficking between each individual training types (lectures, conference, bedside discussions, webinars, certifications, and other) categorized by whether the training type occurred (Yes/No). Respondents were also able to choose “other” which included: “session at hospital invited education event,” “panel discussion,” “grand rounds,” “journal,” “newspaper articles,” “computer-based training,” “education by human trafficking taskforce,” and “directly from colleagues.” The results were as follows:

Lectures and Knowledge

As you can see in Table 4, below, with the exception of ‘Knowledge’ Question #6 – “When to report to police for a patient that may be involved in sex trafficking”, statistically significant differences in mean ranks were found between those who had trained via lectures and those who had not, across the remaining knowledge areas. The mean ranks were higher for those with training via lectures across all knowledge items. Thus, those with training via lectures were significantly more likely to report higher levels of knowledge.
Table 4. Mann Whitney U Table for Knowledge across Lectures (Yes/No)

<table>
<thead>
<tr>
<th>Q#</th>
<th>Question</th>
<th>U</th>
<th>z</th>
<th>Mean Rank No</th>
<th>Mean Rank Yes</th>
<th>Sig. P</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Identifying a victim of child sex trafficking</td>
<td>1307.5</td>
<td>4.047</td>
<td>43.57</td>
<td>68.85</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Interpreting the medical exam of a patient that may be involved in sex trafficking</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Medical workup necessary for a patient that may be involved in sex trafficking</td>
<td>1089.0</td>
<td>4.064</td>
<td>39.94</td>
<td>64.95</td>
<td>0.000</td>
</tr>
<tr>
<td>3</td>
<td>The necessary treatment for a patient that may be involved in sex trafficking</td>
<td>1568.0</td>
<td>5.282</td>
<td>43.40</td>
<td>77.83</td>
<td>0.000</td>
</tr>
<tr>
<td>4</td>
<td>When to report to Child Protective Services for a patient that may be involved in sex trafficking</td>
<td>1135.0</td>
<td>3.911</td>
<td>42.16</td>
<td>67.25</td>
<td>0.000</td>
</tr>
<tr>
<td>5</td>
<td>When to report to police for a patient that may be involved in sex trafficking</td>
<td>1226.0</td>
<td>2.669</td>
<td>45.21</td>
<td>62.04</td>
<td>0.008</td>
</tr>
<tr>
<td>6</td>
<td>Identifying management plans for a patient that may be involved in sex trafficking</td>
<td>934.0</td>
<td>1.077</td>
<td>45.85</td>
<td>52.61</td>
<td>0.282</td>
</tr>
<tr>
<td>7</td>
<td>Identifying resources for a patient that may be involved in sex trafficking</td>
<td>1217.0</td>
<td>2.731</td>
<td>47.59</td>
<td>64.91</td>
<td>0.006</td>
</tr>
<tr>
<td>8</td>
<td></td>
<td>1117.0</td>
<td>3.663</td>
<td>43.80</td>
<td>66.35</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Note. Asymptotic significances are displayed. The significance level is .050.

Conferences and Knowledge

As you can see in Table 5, below, we found statistically significant differences in mean ranks between those who had trained via conferences and those who had not, across all knowledge areas/questions. And, the mean ranks were higher for those with training via conferences across all knowledge items. Thus, those with training via conferences were significantly more likely to report higher levels of knowledge in all eight of those areas listed below.
### Table 5. Mann Whitney U Table for Knowledge across Conferences (Yes/No)

<table>
<thead>
<tr>
<th>Q#</th>
<th>Question</th>
<th>U</th>
<th>z</th>
<th>Mean Rank No</th>
<th>Mean Rank Yes</th>
<th>Sig. P</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Identifying a victim of child sex trafficking</td>
<td>1256.00</td>
<td>4.929</td>
<td>43.10</td>
<td>76.11</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Interpreting the medical exam of a patient that may be involved in sex trafficking.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Medical workup necessary for a patient that may be involved in sex trafficking.</td>
<td>886.00</td>
<td>4.243</td>
<td>40.84</td>
<td>70.79</td>
<td>0.000</td>
</tr>
<tr>
<td>3</td>
<td>The necessary treatment for a patient that may be involved in sex trafficking.</td>
<td>1444.50</td>
<td>5.208</td>
<td>44.17</td>
<td>79.79</td>
<td>0.000</td>
</tr>
<tr>
<td>4</td>
<td>When to report to Child Protective Services for a patient that may be involved in sex trafficking.</td>
<td>1074.00</td>
<td>4.852</td>
<td>41.73</td>
<td>75.63</td>
<td>0.000</td>
</tr>
<tr>
<td>5</td>
<td>When to report to police for a patient that may be involved in sex trafficking.</td>
<td>1103.00</td>
<td>2.541</td>
<td>46.36</td>
<td>63.52</td>
<td>0.011</td>
</tr>
<tr>
<td>6</td>
<td>Identifying management plans for a patient that may be involved in sex trafficking.</td>
<td>918.00</td>
<td>2.226</td>
<td>45.08</td>
<td>60.50</td>
<td>0.026</td>
</tr>
<tr>
<td>7</td>
<td>Identifying resources for a patient that may be involved in sex trafficking.</td>
<td>1191.00</td>
<td>3.700</td>
<td>47.32</td>
<td>72.68</td>
<td>0.000</td>
</tr>
<tr>
<td>8</td>
<td></td>
<td>870.00</td>
<td>3.365</td>
<td>45.32</td>
<td>69.64</td>
<td>0.001</td>
</tr>
</tbody>
</table>

*Note.* Asymptotic significances are displayed. The significance level is .050.

### Bedside Discussions and Knowledge

As you can see in Table 6, below, we found statistically significant differences in mean ranks between those who had bedside training and those who had not, across four knowledge areas/questions (Questions number 1-4, below). The mean ranks were higher for those with bedside training for these knowledge items. Thus, those with training via conferences were significantly more likely to report higher levels of knowledge for identifying, interpreting medical exam of, performing medical workup for and treating a CST victim.

For example, the difference in mean ranks for knowledge of “Medical workup…” between those who did not choose bedside discussions/No (mean rank = 48.96) and those who did choose bedside discussions/Yes (mean rank = 86.00) was higher and p = 0.001. Thus, those
with bedside training were significantly more likely to report higher levels of knowledge of “Medical workup....”

Table 6. Mann Whitney U Table for Knowledge across Bedside Discussions (Yes/No)

<table>
<thead>
<tr>
<th>Q#</th>
<th>Question</th>
<th>U</th>
<th>z</th>
<th>Mean Rank No</th>
<th>Mean Rank Yes</th>
<th>Sig. P</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Identifying a victim of child sex trafficking</td>
<td>432.00</td>
<td>2.508</td>
<td>47.80</td>
<td>75.50</td>
<td>0.012</td>
</tr>
<tr>
<td></td>
<td>Interpreting the medical exam of a patient that may be involved in sex trafficking.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Medical workup necessary for a patient that may be involved in sex trafficking</td>
<td>385.50</td>
<td>2.325</td>
<td>43.91</td>
<td>67.75</td>
<td>0.020</td>
</tr>
<tr>
<td></td>
<td>The necessary treatment for a patient that may be involved in sex trafficking</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>The necessary treatment for a patient that may be involved in sex trafficking</td>
<td>574.00</td>
<td>3.386</td>
<td>48.96</td>
<td>86.00</td>
<td>0.001</td>
</tr>
<tr>
<td>4</td>
<td>When to report to Child Protective Services for a patient that may be involved in sex trafficking</td>
<td>438.00</td>
<td>2.884</td>
<td>45.52</td>
<td>76.50</td>
<td>0.004</td>
</tr>
<tr>
<td>5</td>
<td>When to report to police for a patient that may be involved in sex trafficking</td>
<td>325.00</td>
<td>0.705</td>
<td>49.51</td>
<td>57.67</td>
<td>0.481</td>
</tr>
<tr>
<td>6</td>
<td>Identifying management plans for a patient that may be involved in sex trafficking</td>
<td>291.50</td>
<td>1.155</td>
<td>47.26</td>
<td>61.30</td>
<td>0.248</td>
</tr>
<tr>
<td>7</td>
<td>Identifying resources for a patient that may be involved in sex trafficking</td>
<td>353.50</td>
<td>0.974</td>
<td>51.36</td>
<td>62.42</td>
<td>0.330</td>
</tr>
<tr>
<td>8</td>
<td></td>
<td>386.00</td>
<td>0.055</td>
<td>47.76</td>
<td>67.83</td>
<td>0.055</td>
</tr>
</tbody>
</table>

*Note.* Asymptotic significances are displayed. The significance level is .050.

**Webinars and Knowledge**

As you can see in Table 7, below, with the exception of Knowledge Question #8 – “Identifying resources for a patient that may be involved in sex trafficking” – statistically significant differences in mean ranks were found between those who had trained via webinars and those who had not, across all of the other seven knowledge areas/questions. The mean ranks were higher for those with training via webinars across all of these knowledge items. Thus, those with training via webinars were significantly more likely to report higher levels of knowledge for identifying, interpreting medical exam, performing medical workup, treating, reporting to CPS and Police and identifying management plan for CST victims.
Table 7. Mann Whitney U Table for Knowledge across Webinars (Yes/No)

<table>
<thead>
<tr>
<th>Q#</th>
<th>Question</th>
<th>U</th>
<th>z</th>
<th>Mean Rank No</th>
<th>Mean Rank Yes</th>
<th>Sig. P</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Identifying a victim of child sex trafficking</td>
<td>523.00</td>
<td>3.061</td>
<td>47.25</td>
<td>78.71</td>
<td>0.002</td>
</tr>
<tr>
<td></td>
<td>Interpreting the medical exam of a patient that may be involved in sex trafficking</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Medical workup necessary for a patient that may be involved in sex trafficking</td>
<td>345.00</td>
<td>2.513</td>
<td>43.94</td>
<td>72.00</td>
<td>0.012</td>
</tr>
<tr>
<td>3</td>
<td>The necessary treatment for a patient that may be involved in sex trafficking</td>
<td>588.50</td>
<td>3.589</td>
<td>48.81</td>
<td>88.07</td>
<td>0.000</td>
</tr>
<tr>
<td>4</td>
<td>When to report to Child Protective Services for a patient that may be involved in sex trafficking</td>
<td>407.50</td>
<td>3.340</td>
<td>45.42</td>
<td>84.50</td>
<td>0.001</td>
</tr>
<tr>
<td>5</td>
<td>When to report to police for a patient that may be involved in sex trafficking</td>
<td>467.50</td>
<td>2.076</td>
<td>48.42</td>
<td>70.79</td>
<td>0.038</td>
</tr>
<tr>
<td>6</td>
<td>Identifying management plans for a patient that may be involved in sex trafficking</td>
<td>391.00</td>
<td>1.976</td>
<td>46.61</td>
<td>68.67</td>
<td>0.048</td>
</tr>
<tr>
<td>7</td>
<td>Identifying resources for a patient that may be involved in sex trafficking</td>
<td>465.50</td>
<td>2.721</td>
<td>50.20</td>
<td>81.08</td>
<td>0.007</td>
</tr>
<tr>
<td>8</td>
<td></td>
<td>210.00</td>
<td>1.631</td>
<td>48.27</td>
<td>72.00</td>
<td>.162 (a)</td>
</tr>
</tbody>
</table>

Note. Asymptotic significances are displayed. The significance level is .050.
(a) Exact significance is displayed for this test.

Certifications vs. Knowledge

As you can see in Table 8, below, with the exception of Knowledge Question #5 – “When to report to Child Protective Services for a patient that may be involved in sex trafficking” – statistically significant differences in mean ranks were found between those who had trained via certifications and those who had not, across all of the other 7 knowledge areas/questions. And, the mean ranks were higher for those with training via certifications across all of these knowledge items. Thus, those with training via webinars were significantly more likely to report higher levels of knowledge for identifying, interpreting medical exam, performing medical workup, treating, reporting to Police and identifying resources and management plans for CST victims.
Table 8. Mann Whitney U Table for Knowledge across Certifications (Yes/No)

<table>
<thead>
<tr>
<th>Q#</th>
<th>Question</th>
<th>U</th>
<th>z</th>
<th>Mean Rank No</th>
<th>Mean Rank Yes</th>
<th>Sig. P</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Identifying a victim of child sex trafficking</td>
<td>396.50</td>
<td>2.873</td>
<td>47.74</td>
<td>82.30</td>
<td>0.004</td>
</tr>
<tr>
<td></td>
<td>Interpreting the medical exam of a patient that may be involved in sex trafficking</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Medical workup necessary for a patient that may be involved in sex trafficking</td>
<td>218.50</td>
<td>2.129</td>
<td>44.49</td>
<td>74.83</td>
<td>.044 (a)</td>
</tr>
<tr>
<td>3</td>
<td>The necessary treatment for a patient that may be involved in sex trafficking</td>
<td>415.00</td>
<td>2.832</td>
<td>49.72</td>
<td>86.00</td>
<td>0.005</td>
</tr>
<tr>
<td>4</td>
<td>When to report to Child Protective Services for a patient that may be involved in sex trafficking</td>
<td>389.50</td>
<td>3.015</td>
<td>45.62</td>
<td>80.90</td>
<td>0.003</td>
</tr>
<tr>
<td></td>
<td>When to report to police for a patient that may be involved in sex trafficking</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Identifying management plans for a patient that may be involved in sex trafficking</td>
<td>304.50</td>
<td>1.161</td>
<td>49.26</td>
<td>63.90</td>
<td>0.246</td>
</tr>
<tr>
<td>6</td>
<td>Identifying resources for a patient that may be involved in sex trafficking</td>
<td>347.00</td>
<td>2.118</td>
<td>46.64</td>
<td>72.40</td>
<td>0.034</td>
</tr>
<tr>
<td>7</td>
<td></td>
<td>376.50</td>
<td>2.235</td>
<td>50.66</td>
<td>78.30</td>
<td>0.025</td>
</tr>
<tr>
<td>8</td>
<td></td>
<td>363.50</td>
<td>2.471</td>
<td>47.55</td>
<td>75.70</td>
<td>0.013</td>
</tr>
</tbody>
</table>

*Note.* Asymptotic significances are displayed. The significance level is .050. (a) Exact significance is displayed for this test.

**Gender and Knowledge**

A Mann-Whitney U test was run to determine if there were differences in knowledge of various aspects of treating a victim of child sex trafficking in the clinical setting between males and females. There were no significant differences in the mean ranks between male and female participants in the level of knowledge of the items seen in Table 9, below.
Table 9. Mann Whitney U Table for Knowledge across Gender (Male/Female)

<table>
<thead>
<tr>
<th>Q#</th>
<th>Question</th>
<th>U</th>
<th>z</th>
<th>Mean Rank Male</th>
<th>Mean Rank Female</th>
<th>Sig. P</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Identifying a victim of child sex trafficking</td>
<td>920.50</td>
<td>-0.508</td>
<td>51.63</td>
<td>48.65</td>
<td>0.612</td>
</tr>
<tr>
<td></td>
<td>Interpreting the medical exam of a patient that may be involved in sex</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>trafficking</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Medical workup necessary for a patient that may be involved in sex</td>
<td>761.50</td>
<td>-0.378</td>
<td>46.54</td>
<td>44.40</td>
<td>0.705</td>
</tr>
<tr>
<td></td>
<td>trafficking</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>The necessary treatment for a patient that may be involved in sex</td>
<td>1114.50</td>
<td>0.743</td>
<td>47.7</td>
<td>52.27</td>
<td>0.457</td>
</tr>
<tr>
<td></td>
<td>trafficking</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Child Protective Services for a patient that may be involved in sex</td>
<td>986.50</td>
<td>0.686</td>
<td>44.27</td>
<td>48.18</td>
<td>0.493</td>
</tr>
<tr>
<td></td>
<td>trafficking</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>When to report to police for a patient that may be involved in sex</td>
<td>923.50</td>
<td>-0.626</td>
<td>52.16</td>
<td>48.38</td>
<td>0.531</td>
</tr>
<tr>
<td></td>
<td>trafficking</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Identifying management plans for a patient that may be involved in sex</td>
<td>922.50</td>
<td>-0.132</td>
<td>48.55</td>
<td>47.77</td>
<td>0.895</td>
</tr>
<tr>
<td></td>
<td>trafficking</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Identifying resources for a patient that may be involved in sex trafficking</td>
<td>970.00</td>
<td>-0.357</td>
<td>53.07</td>
<td>50.93</td>
<td>0.721</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td>901.00</td>
<td>-0.203</td>
<td>49.85</td>
<td>48.89</td>
<td>0.839</td>
</tr>
</tbody>
</table>

Note: Asymptotic significances are displayed. The significance level is .050.

**Ethnicity and Knowledge**

A Mann-Whitney U test was run to determine if there were differences in knowledge of various aspects of dealing with a victim of child sex trafficking in the clinical setting, between ‘Whites’ and ‘Non-Whites.’ As seen in Table 10, below, there were no statistically significant differences in mean ranks between Whites and Non-Whites and the level of knowledge for the items.
Training and Comfort

A Mann-Whitney U test was run to determine if there were differences in comfort with various aspects of care for a CST victim in the clinical setting, between those with and without prior training. Level of comfort responses were on a four-point Likert scale (not at all comfortable, slightly comfortable, moderately comfortable, very comfortable)

As you can see in Table 11, below, respondents with prior training were significantly more likely of feel more comfortable in all the knowledge items which include screening and interviewing patients, performing a medical exam, and speaking with CPS and police.
Table 11. Mann Whitney U Table for Comfort across Training (Yes/No)

<table>
<thead>
<tr>
<th>Q#</th>
<th>Question</th>
<th>U</th>
<th>z</th>
<th>Mean Rank No</th>
<th>Mean Rank Yes</th>
<th>Sig. p</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Screening patients for sex trafficking</td>
<td>1645.00</td>
<td>4.195</td>
<td>40.12</td>
<td>62.79</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Interviewing patients that may be involved in sex trafficking</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Performing a medical exam on a patient that may be involved in sex trafficking</td>
<td>1413.50</td>
<td>3.180</td>
<td>41.04</td>
<td>58.39</td>
<td>0.001</td>
</tr>
<tr>
<td>3</td>
<td>Speaking with Child Protective Services for a patient that has been sex trafficked</td>
<td>1537.00</td>
<td>3.691</td>
<td>40.88</td>
<td>61.19</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Speaking with police about a patient that may be involved in sex trafficking</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Speaking with Child Protective Services for a patient that has been sex trafficked</td>
<td>1543.50</td>
<td>2.815</td>
<td>42.92</td>
<td>58.65</td>
<td>0.005</td>
</tr>
<tr>
<td>5</td>
<td>Speaking with police about a patient that may be involved in sex trafficking</td>
<td>1362.00</td>
<td>2.760</td>
<td>40.28</td>
<td>55.34</td>
<td>0.006</td>
</tr>
</tbody>
</table>

*Note. Asymptotic significances are displayed. The significance level is .050.*

**Training Type and Comfort**

We also ran a Mann-Whitney U test to determine if there were differences in comfort with various aspects of care for a CST victim in the clinical setting, between the various training types. Again, we used mean rank to compare level of comfort between the two groups (Yes/No) for all training types. The results are as follows:

**Lectures and Comfort**

As you can see in Table 12, below, we found statistically significant differences in mean ranks between those who had trained via lectures and those who had not, across all ‘Comfort’ areas/questions. Also, the mean ranks were higher for those with training via lectures across all ‘Comfort’ items. Thus, those with training via lectures were significantly more likely to report higher levels of comfort with screening and interviewing patients, performing a medical exam, and speaking with CPS and police.
Table 12. Mann Whitney U Table for Comfort across Lectures (Yes/No)

<table>
<thead>
<tr>
<th>Q#</th>
<th>Question</th>
<th>U</th>
<th>z</th>
<th>Mean Rank No</th>
<th>Mean Rank Yes</th>
<th>Sig. P</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Screening patients for sex trafficking</td>
<td>1176.00</td>
<td>0.001</td>
<td>43.61</td>
<td>64.95</td>
<td>0.001</td>
</tr>
<tr>
<td></td>
<td>Interviewing patients that may be involved in sex trafficking</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Performing a medical exam on a patient that may be involved in sex trafficking</td>
<td>1078.00</td>
<td>0.001</td>
<td>42.23</td>
<td>64.40</td>
<td>0.001</td>
</tr>
<tr>
<td>3</td>
<td>Speaking with Child Protective Services for a patient that has been sex trafficked</td>
<td>1173.00</td>
<td>0.001</td>
<td>43.21</td>
<td>63.00</td>
<td>0.001</td>
</tr>
<tr>
<td>4</td>
<td>Speaking with police about a patient that may be involved in sex trafficking</td>
<td>1207.50</td>
<td>0.023</td>
<td>45.73</td>
<td>59.94</td>
<td>0.023</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>1032.50</td>
<td>0.046</td>
<td>43.32</td>
<td>55.52</td>
<td>0.046</td>
</tr>
</tbody>
</table>

Note. Asymptotic significances are displayed. The significance level is .050.

Conferences and Comfort

As you can see in Table 13, below, with the exception of ‘Comfort’ Question #5 – “Speaking with Police about...sex trafficking,” statistically significant differences in mean ranks were found between those who had trained via conferences and those who had not, across all of the other four ‘Comfort’ areas/questions. Also, the mean ranks were higher for those with training via conferences across all of these 'Comfort’ items. Thus, those with training via conferences were significantly more likely to report higher levels of comfort with screening and interviewing patients, performing a medical exam, and speaking with CPS.
Table 13. Mann Whitney U Table for Comfort across Conferences (Yes/No)

<table>
<thead>
<tr>
<th>Q#</th>
<th>Question</th>
<th>U</th>
<th>z</th>
<th>Mean Rank No</th>
<th>Mean Rank Yes</th>
<th>Sig. P</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Screening patients for sex trafficking</td>
<td>1304.50</td>
<td>0.000</td>
<td>42.06</td>
<td>75.73</td>
<td>0.000</td>
</tr>
<tr>
<td></td>
<td>Interviewing patients that may be involved in sex trafficking</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Performing a medical exam on a patient that may be involved in sex trafficking</td>
<td>934.00</td>
<td>0.003</td>
<td>43.87</td>
<td>63.94</td>
<td>0.003</td>
</tr>
<tr>
<td>3</td>
<td>Performing a medical exam on a patient that may be involved in sex trafficking</td>
<td>1029.50</td>
<td>0.000</td>
<td>43.63</td>
<td>72.84</td>
<td>0.000</td>
</tr>
<tr>
<td>4</td>
<td>Speaking with Child Protective Services for a patient that has been sex trafficked</td>
<td>1003.00</td>
<td>0.040</td>
<td>46.64</td>
<td>60.65</td>
<td>0.040</td>
</tr>
<tr>
<td>5</td>
<td>Speaking with police about a patient that may be involved in sex trafficking</td>
<td>884.50</td>
<td>0.107</td>
<td>44.22</td>
<td>54.73</td>
<td>0.107</td>
</tr>
</tbody>
</table>

*Note.* Asymptotic significances are displayed. The significance level is .050.

**Bedside Discussions and Comfort**

As you can see in Table 14, below, with the exception of ‘Comfort’ Questions #5 and #6 – “Speaking with Police about...sex trafficking,” and “Speaking with CPS about…sex trafficking” – we found statistically significant differences in mean ranks between those who had trained via bedside discussions and those who had not, across all of the other three ‘Comfort’ areas/questions. Also, the mean ranks were higher for those with training via bedside discussions across all of these 'Comfort’ items. Thus, those with training via bedside discussions were significantly more likely to report higher levels of comfort with screening and interviewing patients and performing a medical exam.
Table 14. Mann Whitney U Table for Comfort across Bedside Discussions (Yes/No)

<table>
<thead>
<tr>
<th>Q#</th>
<th>Question</th>
<th>U</th>
<th>z</th>
<th>Mean Rank No</th>
<th>Mean Rank Yes</th>
<th>Sig. p</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Screening patients for sex trafficking</td>
<td>398.00</td>
<td>0.043</td>
<td>47.63</td>
<td>69.83</td>
<td>0.043</td>
</tr>
<tr>
<td>2</td>
<td>Interviewing patients that may be involved in sex trafficking</td>
<td>442.50</td>
<td>0.034</td>
<td>45.91</td>
<td>67.21</td>
<td>0.034</td>
</tr>
<tr>
<td>3</td>
<td>Performing a medical exam on a patient that may be involved in sex trafficking</td>
<td>472.00</td>
<td>0.016</td>
<td>46.70</td>
<td>71.43</td>
<td>0.016</td>
</tr>
<tr>
<td>4</td>
<td>Child Protective Services for a patient that has been sex trafficked</td>
<td>397.50</td>
<td>0.256</td>
<td>48.63</td>
<td>60.79</td>
<td>0.256</td>
</tr>
<tr>
<td>5</td>
<td>Speaking with police about a patient that may be involved in sex trafficking</td>
<td>330.00</td>
<td>0.238</td>
<td>45.66</td>
<td>58.50</td>
<td>0.238</td>
</tr>
</tbody>
</table>

Note. Asymptotic significances are displayed. The significance level is .050.

Webinars and Comfort

As you can see in Table 15, below, with the exception of ‘Comfort’ Question #2 – “Interviewing patients that may be involved with child sex trafficking” – statistically significant differences in mean ranks were found between those who had trained via webinars and those who had not, across all of the other four ‘Comfort’ areas/questions. Also, the mean ranks were higher for those with training via webinars across all of these other 'Comfort' items. Thus, those with training via webinars were significantly more likely to report higher levels of comfort with screening patients, performing a medical exam, and speaking with CPS and the Police about a CST victim.
Table 15. Mann Whitney U Table for Comfort across Webinars (Yes/No)

<table>
<thead>
<tr>
<th>Q#</th>
<th>Question</th>
<th>U</th>
<th>z</th>
<th>Mean Rank No</th>
<th>Mean Rank Yes</th>
<th>Sig. P</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Screening patients for sex trafficking</td>
<td>422.50</td>
<td>0.015</td>
<td>47.36</td>
<td>73.92</td>
<td>0.015</td>
</tr>
<tr>
<td>2</td>
<td>Interviewing patients that may be involved in sex trafficking</td>
<td>372.00</td>
<td>0.060</td>
<td>46.33</td>
<td>68.40</td>
<td>0.060</td>
</tr>
<tr>
<td>3</td>
<td>Performing a medical exam on a patient that may be involved in sex trafficking</td>
<td>465.50</td>
<td>0.002</td>
<td>46.33</td>
<td>81.08</td>
<td>0.002</td>
</tr>
<tr>
<td>4</td>
<td>Speaking with Child Protective Services for a patient that has been sex trafficked</td>
<td>506.00</td>
<td>0.007</td>
<td>47.44</td>
<td>76.29</td>
<td>0.007</td>
</tr>
<tr>
<td>5</td>
<td>Speaking with police about a patient that may be involved in sex trafficking</td>
<td>507.00</td>
<td>0.014</td>
<td>44.46</td>
<td>67.88</td>
<td>0.014</td>
</tr>
</tbody>
</table>

*Note.* Asymptotic significances are displayed. The significance level is .050.

**Certifications and Comfort**

As you can see in Table 16, below, with the exception of ‘Comfort’ Questions #1 and #2 – “screening patients for sex trafficking” and “interviewing patients that may be involved in sex trafficking” – we found statistically significant differences in mean ranks between those who had trained via certifications and those who had not, across all of the other three ‘Comfort’ areas/questions. Also, the mean ranks were higher for those with training via certifications across those three ‘Comfort’ items. Thus, those with training via certifications were significantly more likely to report higher levels of comfort with performing a medical exam on and reporting to CSP and Police about a CST victim.
Table 16. Mann Whitney U Table for Comfort across Certifications (Yes/No)

<table>
<thead>
<tr>
<th>Q#</th>
<th>Question</th>
<th>U</th>
<th>z</th>
<th>Mean Rank</th>
<th>Mean Rank</th>
<th>Sig. P</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Screening patients for sex trafficking</td>
<td>269.00</td>
<td>0.103</td>
<td>48.11</td>
<td>69.75</td>
<td>.139 (a)</td>
</tr>
<tr>
<td></td>
<td>Interviewing patients that may be involved in sex trafficking</td>
<td>252.50</td>
<td>0.147</td>
<td>49.69</td>
<td>65.63</td>
<td>.181 (a)</td>
</tr>
<tr>
<td>2</td>
<td>Performing a medical exam on a patient that may be involved in sex trafficking</td>
<td>335.00</td>
<td>0.003</td>
<td>46.86</td>
<td>86.25</td>
<td>.002 (a)</td>
</tr>
<tr>
<td></td>
<td>Speaking with Child Protective Services for a patient that has been sex trafficked</td>
<td>379.50</td>
<td>0.013</td>
<td>47.92</td>
<td>78.90</td>
<td>0.013</td>
</tr>
<tr>
<td>3</td>
<td>Speaking with police about a patient that may be involved in sex trafficking</td>
<td>376.50</td>
<td>0.005</td>
<td>44.67</td>
<td>78.30</td>
<td>0.005</td>
</tr>
</tbody>
</table>

Note. Asymptotic significances are displayed. The significance level is .050.
(a) Exact significance is displayed for this test.

Gender and Comfort

A Mann-Whitney U test was run to determine if there were differences in comfort with various aspects of dealing with a victim of child sex trafficking in the clinical setting, between males and females. There were no significant differences in the mean ranks between male and female participants in the level of comfort with the items seen in Table 15, below.

Table 17. Mann Whitney U Table for Comfort across Gender (Male/Female)

<table>
<thead>
<tr>
<th>Q#</th>
<th>Question</th>
<th>U</th>
<th>z</th>
<th>Mean Rank Male</th>
<th>Mean Rank Female</th>
<th>Sig. p</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Screening patients for sex trafficking</td>
<td>1028.00</td>
<td>1.052</td>
<td>43.96</td>
<td>50.19</td>
<td>0.293</td>
</tr>
<tr>
<td></td>
<td>Interviewing patients that may be involved in sex trafficking</td>
<td>997.50</td>
<td>0.962</td>
<td>43.06</td>
<td>48.61</td>
<td>0.336</td>
</tr>
<tr>
<td>2</td>
<td>Performing a medical exam on a patient that may be involved in sex trafficking</td>
<td>1038.00</td>
<td>0.872</td>
<td>44.43</td>
<td>49.49</td>
<td>0.383</td>
</tr>
<tr>
<td></td>
<td>Speaking with Child Protective Services for a patient that has been sex trafficked</td>
<td>942.50</td>
<td>0.365</td>
<td>47.30</td>
<td>49.59</td>
<td>0.715</td>
</tr>
<tr>
<td>3</td>
<td>Speaking with police about a patient that may be involved in sex trafficking</td>
<td>896.00</td>
<td>0.737</td>
<td>43.17</td>
<td>47.68</td>
<td>0.461</td>
</tr>
</tbody>
</table>

Note. Asymptotic significances are displayed. The significance level is .050.
**Ethnicity and Comfort**

A Mann-Whitney U test was run to determine if there were differences in comfort with various aspects of dealing with a victim of child sex trafficking in the clinical setting, between Whites and Non-Whites. There were no significant differences in the mean ranks between White and Non-White participants in the level of comfort with the items seen in Table 18, below.

Table 18. Mann Whitney U Table for Comfort across Ethnicity (Non-White/White)

<table>
<thead>
<tr>
<th>Q#</th>
<th>Question</th>
<th>U</th>
<th>z</th>
<th>Non-White Mean Rank</th>
<th>White Mean Rank</th>
<th>Sig. P</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Screening patients for sex trafficking</td>
<td>779.50</td>
<td>-0.660</td>
<td>49.82</td>
<td>45.96</td>
<td>0.510</td>
</tr>
<tr>
<td></td>
<td>Interviewing patients that may be involved in sex trafficking</td>
<td>755.00</td>
<td>-0.153</td>
<td>46.17</td>
<td>45.27</td>
<td>0.879</td>
</tr>
<tr>
<td>2</td>
<td>Performing a medical exam on a patient that may be involved in sex trafficking</td>
<td>718.50</td>
<td>-1.111</td>
<td>51.26</td>
<td>44.72</td>
<td>0.266</td>
</tr>
<tr>
<td>3</td>
<td>Speaking with Child Protective Services for a patient that has been sex trafficked</td>
<td>849.00</td>
<td>-0.229</td>
<td>49.04</td>
<td>47.63</td>
<td>0.819</td>
</tr>
<tr>
<td>4</td>
<td>Speaking with police about a patient that may be involved in sex trafficking</td>
<td>712.00</td>
<td>-0.756</td>
<td>48.83</td>
<td>44.29</td>
<td>0.449</td>
</tr>
</tbody>
</table>

*Note.* Asymptotic significances are displayed. The significance level is .050.

**Bi-Variate Analysis of Training Hours and Knowledge/Comfort**

**Training Hours and Knowledge**

A Spearman's rank-order correlation was run to assess the relationship between the number of hours (continuous variable) of training a pediatrician had and their level of knowledge (ordinal variable) of various aspects of managing a CST victim in the clinical setting. As you can see in Table 19, below, there were statistically significant, moderately positive correlations between hours of training and those 8 knowledge areas [Spearman correlation coefficient (rs) values from 0.448 - 0.521; p-values from 0.001 - 0.004]. Therefore, knowledge of those 8 areas increases as the number of hours of training increases.
Table 19. Spearman’s Correlation Output for Training Hours and Knowledge

<table>
<thead>
<tr>
<th>Q#</th>
<th>Crosstabs</th>
<th>$r_s$</th>
<th>N</th>
<th>$z$ (a)</th>
<th>$T$ (b)</th>
<th>$p$ (c)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Identifying a victim of child sex trafficking * Training Hours</td>
<td>0.473</td>
<td>36</td>
<td>0.141</td>
<td>3.130</td>
<td>0.004</td>
</tr>
<tr>
<td>2</td>
<td>Interpreting the medical exam of a patient that may be involved in sex trafficking * Training Hours</td>
<td>0.448</td>
<td>31</td>
<td>0.186</td>
<td>2.695</td>
<td>0.012</td>
</tr>
<tr>
<td>3</td>
<td>Medical workup necessary for a patient that may be involved in sex trafficking * Training Hours</td>
<td>0.521</td>
<td>39</td>
<td>0.162</td>
<td>3.717</td>
<td>0.001</td>
</tr>
<tr>
<td>4</td>
<td>The necessary treatment for a patient that may be involved in sex trafficking * Training Hours</td>
<td>0.467</td>
<td>34</td>
<td>0.171</td>
<td>2.990</td>
<td>0.005</td>
</tr>
<tr>
<td>5</td>
<td>When to report to Child Protective Services for a patient that may be involved in sex trafficking * Training Hours</td>
<td>0.497</td>
<td>41</td>
<td>0.126</td>
<td>3.580</td>
<td>0.001</td>
</tr>
<tr>
<td>6</td>
<td>When to report to police for a patient that may be involved in sex trafficking * Training Hours</td>
<td>0.514</td>
<td>39</td>
<td>0.148</td>
<td>3.649</td>
<td>0.001</td>
</tr>
<tr>
<td>7</td>
<td>Identifying management plans for a patient that may be involved in sex trafficking * Training Hours</td>
<td>0.479</td>
<td>40</td>
<td>0.116</td>
<td>3.360</td>
<td>0.002</td>
</tr>
<tr>
<td>8</td>
<td>Identifying resources for a patient that may be involved in sex trafficking * Training Hours</td>
<td>0.502</td>
<td>34</td>
<td>0.152</td>
<td>3.279</td>
<td>0.003</td>
</tr>
</tbody>
</table>

*Not assuming the null hypothesis (a); Using the asymptomatic standard error assuming standard error (b); Based on normal approximation (c).

**Training Hours and Comfort**

A Spearman's rank-order correlation was run to assess the relationship between the hours of training a pediatrician had and their level of comfort (ordinal variable) with various aspects of managing a CST victim in the clinical setting. As you can see in Table 20, below, with the exception of ‘Comfort’ Question # 5 – “Speaking with police about...sex trafficking” – there
were statistically significant, low to moderate positive correlations between hours of training and the remaining four ‘Comfort’ areas (Spearman correlation coefficient (rs) values from 0.368 - 0.524; p-values from 0.001 - 0.019). Therefore, as the hours of training increases, so does comfort with screening, interviewing, performing medical exam of and speaking with CPS about a CST victim.

Table 20. Spearman’s Correlation Output for Training Hours and Comfort

<table>
<thead>
<tr>
<th>Q#</th>
<th>Crosstabs</th>
<th>r_s</th>
<th>N</th>
<th>z (a)</th>
<th>T (b)</th>
<th>p (c)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Screening patients for sex trafficking * Training Hours</td>
<td>0.524</td>
<td>37</td>
<td>0.147</td>
<td>3.639</td>
<td>0.001</td>
</tr>
<tr>
<td>2</td>
<td>Interviewing patients that may be involved in sex trafficking * Training Hours</td>
<td>0.498</td>
<td>34</td>
<td>0.148</td>
<td>3.248</td>
<td>0.003</td>
</tr>
<tr>
<td>3</td>
<td>Performing a medical exam on a patient that may be involved in sex trafficking * Training Hours</td>
<td>0.466</td>
<td>35</td>
<td>0.165</td>
<td>3.022</td>
<td>0.005</td>
</tr>
<tr>
<td>4</td>
<td>Speaking with Child Protective Services for a patient that has been sex trafficked * Training Hours</td>
<td>0.368</td>
<td>40</td>
<td>0.144</td>
<td>2.44</td>
<td>0.019</td>
</tr>
<tr>
<td>5</td>
<td>Speaking with police about a patient that may be involved in sex trafficking * Training Hours</td>
<td>0.288</td>
<td>37</td>
<td>0.157</td>
<td>1.778</td>
<td>0.084</td>
</tr>
</tbody>
</table>

*Not assuming the null hypothesis (a); Using the asymptomatic standard error assuming standard error (b); Based on normal approximation (c).

**Years of Practice and Knowledge**

A Spearman's rank-order correlation was run to assess the relationship between Years of Practice (ordinal variable) a pediatrician had and their level of knowledge (ordinal variable) of various aspects of managing a CST victim in the clinical setting. As you can see in Table 21, below, there were no statistically significant positive or negative correlation between years of practice and those eight knowledge areas. Therefore, knowledge of those eight areas does not increase (or decrease) with increasing years of practice.
Table 21. Spearman’s Correlation Output for Years of Practice and Knowledge

<table>
<thead>
<tr>
<th>Q#</th>
<th>Crosstabs</th>
<th>$r_s$</th>
<th>$N$</th>
<th>$z$ (a)</th>
<th>$T$ (b)</th>
<th>$p$ (c)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Identifying a victim of child sex trafficking is the same * Years Practicing.</td>
<td>0.069</td>
<td>95</td>
<td>0.100</td>
<td>0.664</td>
<td>0.508</td>
</tr>
<tr>
<td>2</td>
<td>Interpreting the medical exam of a patient that may be involved in sex trafficking * Years Practicing.</td>
<td>0.007</td>
<td>88</td>
<td>0.107</td>
<td>0.065</td>
<td>0.948</td>
</tr>
<tr>
<td>3</td>
<td>Medical workup necessary for a patient that may be involved in sex trafficking * Years Practicing.</td>
<td>-0.097</td>
<td>99</td>
<td>0.102</td>
<td>-0.960</td>
<td>0.339</td>
</tr>
<tr>
<td>4</td>
<td>The necessary treatment for a patient that may be involved in sex trafficking * Years Practicing.</td>
<td>0.008</td>
<td>93</td>
<td>0.103</td>
<td>0.074</td>
<td>0.941</td>
</tr>
<tr>
<td>5</td>
<td>When to report to Child Protective Services for a patient that may be involved in sex trafficking * Years Practicing.</td>
<td>0.077</td>
<td>97</td>
<td>0.098</td>
<td>0.749</td>
<td>0.456</td>
</tr>
<tr>
<td>6</td>
<td>When to report to police for a patient that may be involved in sex trafficking * Years Practicing.</td>
<td>0.178</td>
<td>93</td>
<td>0.101</td>
<td>1.721</td>
<td>0.089</td>
</tr>
<tr>
<td>7</td>
<td>Identifying management plans for a patient that may be involved in sex trafficking * Years Practicing.</td>
<td>0.021</td>
<td>101</td>
<td>0.099</td>
<td>0.211</td>
<td>0.834</td>
</tr>
<tr>
<td>8</td>
<td>Identifying resources for a patient that may be involved in sex trafficking * Years Practicing.</td>
<td>-0.023</td>
<td>95</td>
<td>0.102</td>
<td>-0.218</td>
<td>0.828</td>
</tr>
</tbody>
</table>

*Not assuming the null hypothesis (a); Using the asymptomatic standard error assuming standard error (b); Based on normal approximation (c).

**Years of Practice and Comfort**

A Spearman's rank-order correlation was also run to assess the relationship between Years of Practice (ordinal variable) a pediatrician had and their level of comfort (ordinal variable) with various aspects of managing a CST victim in the clinical setting. As you can see in Table 22, below, there were no statistically significant positive or negative correlation between
years of practice and those eight knowledge areas. Therefore, comfort with those five areas does not increase (or decrease) with increasing years of practice.

Table 22. Spearman’s Correlation Output for Years of Practice and Comfort

<table>
<thead>
<tr>
<th>Crosstabs</th>
<th>$r_s$</th>
<th>N</th>
<th>$z$ (a)</th>
<th>$T$ (b)</th>
<th>$p$ (c)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Screening patients for sex trafficking * Years Practicing.</td>
<td>0.008</td>
<td>95</td>
<td>0.104</td>
<td>0.076</td>
<td>0.940</td>
</tr>
<tr>
<td>Interviewing patients that may be involved in sex trafficking * Years Practicing.</td>
<td>-0.108</td>
<td>92</td>
<td>0.103</td>
<td>-1.034</td>
<td>0.304</td>
</tr>
<tr>
<td>Performing a medical exam on a patient that may be involved in sex trafficking * Years Practicing.</td>
<td>-0.115</td>
<td>93</td>
<td>0.101</td>
<td>-1.539</td>
<td>0.127</td>
</tr>
<tr>
<td>Speaking with Child Protective Services for a patient that has been sex trafficked * Years Practicing.</td>
<td>0.057</td>
<td>95</td>
<td>0.102</td>
<td>0.554</td>
<td>0.581</td>
</tr>
<tr>
<td>Speaking with police about a patient that may be involved in sex trafficking * Years Practicing.</td>
<td>0.047</td>
<td>89</td>
<td>0.106</td>
<td>0.435</td>
<td>0.665</td>
</tr>
</tbody>
</table>

*Not assuming the null hypothesis (a); Using the asymptomatic standard error assuming standard error (b); Based on normal approximation (c).
CHAPTER FIVE
DISCUSSION

The purpose of this quantitative, exploratory research study was to discover if/how various aspects of education and training may be related to a pediatrician’s knowledge of, skills in and attitudes about child trafficking in the clinical setting. This chapter includes a discussion of the major findings, and helps answer the study’s main research question: How well, if at all, are pediatricians in the U.S. trained, and able to identify, screen, treat and report a victim of child sex trafficking in a clinical setting?

It also discusses how if at all, the following factors are related to a pediatrician’s self-reported knowledge of, comfort with or perceived barriers to identifying, screening, treating and reporting a victim of child sex-trafficking: (1) whether or not they had any education or training on the topic of child sex trafficking; (2) method of education/training on the topic of child sex trafficking; (3) hours of education/training received; (4) years of practice as a physician, (5) gender; and (6) ethnicity.

Finally, the chapter explores the study results’ implications for policy and practice and concludes with a discussion of the limitations of the study and recommendations for future research.
Explanation of Findings

All of our findings are explored in this section. Possible explanations are explored about whether the results provided evidence to support the hypotheses. Areas of training and level of knowledge and comfort in treating victims of child sex trafficking were the major areas of focus.

Pediatricians’ Inability to Recognize Trafficking Victims Demonstrates Lack of Knowledge

Over 80% of the study participants who responded to the question “In the past six months, how many patients have you evaluated with the concern for sex trafficking?” reported seeing zero patients that they thought were victims of child sex trafficking. The other participants mostly reported evaluating just one or two. This is difficult to fathom given that in one study of sex trafficking victims, 88% of them sought medical care while in captivity (Lederer & Wetzel, 2014) and in another study of adolescent CSEC victims in NYC, over 75% of them visited a health professional in the last six months (Curtis et al., 2008). However, once you take into account that only 9% of our respondents worked in an emergency department where – according to Lederer and Wetzel’s (2014) survey of over 100 survivors of domestic sex trafficking – most survivors reported going, the response may make more sense.

In another study, 50% of the survivors interviewed had seen a healthcare provider while in their trafficker’s control; and although they were mainly taken for conditions that would render them unfit to “work” such as STIs or trauma-related severe injuries, they recalled visiting both small and large, private and public establishments for a variety of conditions (Baldwin et al., 2011). Similarly, a study by Ravi, Pfeiffer, Rosner, and Shea (2017) shows that the sex-trafficked women had visited healthcare professionals for a range of ailments from HIV testing to pregnancy to chronic disease. Therefore, it is unlikely that only 19 of 96 participants saw a
victim of trafficking, when a large majority of them work in hospital inpatient departments, or a hospital or community-based clinic; it is more likely that they did not know how to recognize a CST victim.

Although anyone can be a victim of CST, we know that African-American and Latino youth are overrepresented in CST cases and 52% of all juvenile commercial sex act arrests are African-American children (Federal Bureau of Investigation [FBI], 2014). Our study’s respondents – majority of whom identified as white (70%) and female (72%), the largest group in the medical specialty of pediatrics, according to the American Medical Association (https://www.aamc.org/data-reports/workforce/data/table-13-practice-specialty-males-race/ethnicity-2018) – may be less aware of trafficking issues and unable to identify it or may have biases about what trafficking looks like.

It is also important to note that the respondents with subspecialties such as neonatology, albeit a small number, probably would not come across a victim of child trafficking, since the average age of children who enter into sex work as victims of CST in the U.S., is about 15 (National Center for Missing and Exploited Children). It is possible, however, that the parents of the neonates are juveniles and trafficked, themselves, and may also need to be properly identified – leading to our recommendation that all pediatricians are trained about CST, regardless of their eventual specialization.

A very small percentage of our study’s participants reported seeing a CST case in the last six months; but almost 70% also expressed that they were either not at all knowledgeable or only slightly knowledgeable about how to identify a CST victim. This may be the biggest explanation for why so many respondents reported not having evaluated any children for CST in the last six
months – how can they evaluate something if they don’t know what they are looking for? Our study’s pediatricians’ lack of knowledge of what a victim of CST looks like is a huge problem, but is preventable with adequate training. It is possible that once these pediatricians are able to recognize CST, they will “see” more CST patients, which will increase their experience with CST, leading to increased knowledge and comfort and fewer barriers.

**Clinical Vignette Responses Mostly Contradict Self-Reported Knowledge**

The results from the clinical vignette questions that tested participants’ general knowledge including the identification and treatment of CST victims do not reflect self-reported knowledge about these factors. For instance, for the first question which describes a scenario in which a 15-year old, homeless male is a CST victim, 72% correctly identify him as being so. Given the participants’ self-reported lack of knowledge of how to identify a CST victim, it is plausible that those who answered this question correctly simply guessed the right answer – that this child is a CST victim – because this is a survey about CST.

It’s also important to note that 21% of the participants incorrectly labeled the youth as a “prostitute,” not a CST victim, because he is “choosing to take part in these activities and not being forced.” There was also a small percentage of respondents who disqualified this child as a CST victim because he was not transported anywhere and because he exchanged sex for food and shelter, not money. Albeit true, that the youth attested that he “hustles” on the streets and has had more than 50 sexual partners, neither of these statements necessarily disqualify him from being a victim of CST. This mislabeling could also be a result of the biases that exist regarding what a CST victim may look like (male vs. female) and the circumstances that may lead a person
to "the life." This is more evidence that education about how to identify CST victims is sorely needed in medical education.

The second question assesses the participants’ knowledge about medical workup, treatment and reporting procedure for a CST victim by asking them to select all of the correct measures – of five total measures that were listed as choices – to take for a 17-year old female patient who presents in an emergency department with an account of sexual assault. Although almost everyone chose one of four correct measures, only 50% correctly recognized that all four measures were correct and necessary. These results mostly align with participants’ self-reported lack of knowledge about necessary medical workup and treatment for CST victims and sufficiency in reporting protocols. It is very possible that the study subjects’ familiarity with child assault/abuse cases helped them with the reporting aspects of the question and that they were able to guess the rest because the procedures were listed. It would be interesting to see if as many respondents would be able to write in procedures, if choices were not provided.

The final vignette asked participants to correctly identify possible “pimps” of a 14-year old patient who is accompanied by her “mother” and same-aged “friend” and has a complaint about vaginal discharge. There are other “characters” in the vignette and participants needed to recognize that all of the characters in the vignette could be pimps to correctly answer this question. The results showed that only 11-18% of participants chose each character and only 38% correctly identified all of the characters as pimps. In other words, less than 20% of our study’s participants were able to correctly “recognize” each of the characters as pimps and over 60% were not able to “recognize” that all of those characters could be pimps. This shows, again,
our participants’ potential biases about who pimps could be and their lack of knowledge about CST.

The Relationship between Training and Knowledge

Almost 70% of participants felt that they were not at all knowledgeable or slightly knowledgeable about how to identify, interpret the medical exam of, the necessary medical workup and treatment of a CST patient. Almost 80% were not at all knowledgeable or slightly knowledgeable about identifying resources for a sex-trafficked patient. Ninety percent were not at all knowledgeable or slightly knowledgeable about management plans for a sex-trafficked patient. In other words, a vast majority of pediatricians felt that they did not possess adequate knowledge of critical areas involved in the management of a CST patient in the clinical setting, despite the fact that the majority of our sample population were attending physicians in the pediatric medical specialty with over 15 years of practice. Therefore, general experience does not beget knowledge of CST and specific training is needed to increase pediatricians’ knowledge on this topic.

The good news is that the results of our bivariate analysis showed that participants with prior training were significantly more likely to report higher levels of knowledge in all but one knowledge areas. In fact, prior training via any/all of the methods we assessed resulted in more knowledge. For instance, those with training via conferences were significantly more likely to report higher levels of knowledge in all eight knowledge areas, whereas those who trained via lectures, webinars and certifications were significantly more likely to report higher levels of knowledge in seven out of the eight areas, which varied. In other words, as long as
pediatricians are trained, they will most likely demonstrate more knowledge, irrespective of the method of training you utilize, which should be encouraging to educators and physicians.

However, what does seem to matter is the number of hours of training as there was a statistically significant, moderate positive correlation between hours of training and the 8 knowledge areas. Therefore, as the number of hours of training increased, so did knowledge. Although our study does not allow us to know exactly how many hours are needed to have sufficient knowledge on the topic, we know that 1-3 hours is most likely not enough, as those in our study with training only received that much and, a majority of them demonstrated lack of knowledge in all eight areas we tested.

Another interesting finding was that those with training via bedside discussions were significantly more likely to report higher levels of knowledge for identifying, interpreting medical exam of, performing medical workup for and treating a CST victim than those without that type of prior training. While there were no significant differences in knowledge between the those with and without this type of training for reporting to CPS or police and identifying resources and management plans – information that is probably not best learned via bedside discussion. This may mean that bedside discussions are a good method for teaching some things and not others; however, it is a training method with which not many participants had experience, but in which a large number of participants expressed interest.

**The Relationship between Training, Comfort, and Barriers**

Our study’s participants reported mostly feeling not at all or only slightly comfortable performing various tasks that our subject matter experts identified as being vital for an encounter with a CST patient. For instance, very few (n=2) participants said that they were very
comfortable screening and treating a CST patient and only five were very comfortable with performing a medical exam. This matches closely with their self-reported knowledge of related activities and allows us to make a connection between self-reported knowledge and comfort; it is not difficult to imagine that if one lacks knowledge of something, they are less likely to feel comfortable with it.

Luckily, similar to the effect of training/education on knowledge, we found that respondents with prior training were significantly more likely to feel more comfortable with all five management items and the method of training did not really matter. Finally, as the hours of training increased, so did comfort with screening, interviewing, performing medical exam for and speaking with CPS about a CST victim; the only exception was speaking to the police.

Additionally, “lack of training” and “lack of experience” were seen as the biggest barriers to being able to identify a CST victim; the same was true for treating victims. And, while the other barriers to treating child sex trafficking victims such as “insufficient community resources,” and “lack of time to complete screening” may be difficult to rectify, “uncertainty about the medical evaluation process,” necessary medical treatment and the mandatory reporting laws for this patient population” are barriers that are easily overcome with adequate education and training.

Perhaps unsurprisingly, we also found that whether or not our study participants perceived “lack of training” and “lack of experience” as barriers to identifying a patient was moderately related to whether or not they had prior training; meaning that more training would eliminate two of the biggest barriers that pediatricians face when attempting to identify a patient. In fact, this is also true for all of the barriers to treating a CST patient, listed above; whereas
prior training is not related to barriers to reporting in any significant way. However, if a pediatrician cannot recognize a CST victim, s/he will not be able to report it. Thus, the reporting issue is dependent on comfort and knowledge in recognizing CST victims. In sum, by increasing training on CST, you can not only increase pediatricians’ comfort with the topic but also decrease the barriers they face while trying to perform critical tasks related to managing a CST victim.

**The Exception: Speaking and Reporting to CPS and the Police about CST**

The only measures for which more participants reported being moderately to very knowledgeable were when to report a sex-trafficked patient to Child Protective Services (CPS) or the police; and we found no statistically significant relationship between prior training on CST and participants’ knowledge of when to report to police if a child is a CST victim. Participants also reported being moderately to very comfortable with speaking with CPS and/or the police about a victim of CST. This may very well be explained by the fact that although our study’s participants lacked specific CST training, they were most likely familiar with the process of and experienced with reporting cases of other types of child abuse to CPS and the police. In other words, it is possible that their perceived level of knowledge of and comfort with these processes are hypothetical and/or based on knowledge of and experience with other types of child abuse/maltreatment issues, instead of CST.

Additionally, most participants did not experience any issues/barriers when reporting victims of trafficking. This indicates that reporting CST (whether actual or theoretical) is not perceived to be as big a problem as identifying/screening or treating CST victims; underscoring that experience with something, albeit ancillary (reporting child abuse victims) can remove
perceived barriers to doing that task. The only issues that emerged as barriers to reporting related to personal fears about patient endangerment or inaction by authorities, which could be person- and/or location-specific and mitigated with exposure and/or better policies. Which brings us back to the point that being able to identify a CST victim is paramount – pediatricians are probably less likely to experience working with a victim of child sex trafficking if they cannot identify them.

It is also important to note that very few people expressed personal discomfort with the topic, reluctance to report to the police or CPS or frustration with caring for patients that “choose to do this for money” as barriers to treating a CST patient. Therefore, the biggest and most barriers to screening and treating CST patients can be overcome with adequate training and education.

**Gender, Ethnicity and Years of Practice Not Related to Knowledge, Comfort or Barriers**

Although our results - that neither gender nor ethnicity had any statistically significant association with knowledge, comfort or barriers - are not terribly shocking, it was surprising to learn that neither knowledge nor comfort increases (or decreases) with increasing years of practice. This, coupled with the fact that a majority of our participants who had over 15 years of experience reported being not at all or only slightly knowledgeable about/comfortable with critical aspects of caring for a CST victim in the clinical setting illustrates that general experience as a doctor does not beget knowledge of or comfort with CST; and specific training and experience with this topic is needed to increase knowledge and comfort.
Main Takeaway from Study Results: Education and Training are Lacking and Sought

Similar to the results found in Beck et al.’s (2015) study, wherein 63% of respondents said that they had never received training on how to identify sex trafficking victims, 60% of the pediatricians surveyed in our study reported not having any education/training on the topic of child sex trafficking. Almost half of those who did reported acquiring training through venues such as AAP-sponsored events, CME events, grand rounds or conferences; only 16% received training in medical school. The number of hours of training varied, with most people reporting about 1-3 hours. Moreover, over 70% of respondents expressed interest in more education and absolutely no one said they would have liked less education, indicating that the education they received was not as much as they believed they needed. In fact, many of them turned to resources such as webinars, certifications, taskforces, hospital-organized events and grand rounds, and even knowledgeable colleagues for more education on the topic. This demonstrates that education/training for CST is severely lacking and inconsistent in medical schools and residency programs, despite the clear need and desire for more instruction on this pervasive, global public health issue.

Again, although this is a significant gap in the education/training of pediatricians, it is also an opportunity to increase U.S.-trained pediatricians’ knowledge and comfort and, thereby, ability to help victims of child sex trafficking. Since lack of training is one of the biggest barriers to being able to identify and treat CST victims and those with prior training seem to have more knowledge of and comfort with managing a CST patient, more education seems to be an essential way to increase U.S. pediatricians’ ability to better care for CST patients. Finally, our finding that any training, regardless of method (all modes of training we tested resulted in more
knowledge and comfort) seems to be better than no training should be very encouraging to medical students and educators, alike.

**Implication of Findings for Policy and Practice**

It is clear from the results of our study that the amount of education and training of U.S. pediatricians on the topic of child sex trafficking is insufficient. Moreover, since the lack of self-reported knowledge and comfort were for procedures that are probably similar for other types of trafficking (e.g., labor trafficking) it may be safe to presume that human trafficking (HT), in general, is not being taught in medical schools. This is a serious omission but also an opportunity for meaningful change, as with proper training, physicians, who are at the frontlines of this public health issue, can help the hundreds of thousands of human trafficking victims that may seek their help while in captivity. Therefore, this study seeks to make recommendations for education/training of physicians on the topic of child sex trafficking in medical school and beyond.

Human trafficking is a public health concern that should first be addressed at the macro-level of changing medical education to include systematic and thorough education about recognizing human trafficking and CST in particular. In fact, the American Medical Association (AMA) – one of the largest physician lobbying groups in the US with the goal of advancing scientific research, and improving medical education standards and public health – has already adopted policy which calls for physician training on HT. However, entities such as the AMA and AAP need to keep HT education on their advocacy agenda – and go beyond their own organizations and use their influence to put pressure on accrediting bodies and medical schools - until it is made into law.
For instance, although this may be a difficult undertaking, accrediting bodies such as the LCME should mandate the inclusion of at least one required course about human trafficking in every U.S. medical school curriculum. Ideally, the course would be standardized so that all physicians will have the same, basic understanding of the prevalence, risk factors, and characteristics of human trafficking and ways to address it in the clinical setting, regardless of what U.S. school they attend. This is especially important because although the most common reasons and place CST victims sought healthcare include STI and HIV testing in emergency departments, medical ailments and locations run the gamut (Ravi et al., 2017); and HT victims are not restricted to minors. Therefore, medical students should not have to wait till residency to specialize in infectious disease, emergency medicine or pediatrics to learn about HT.

Furthermore, education and training should not be limited to just one course on human trafficking. More courses, specifically tailored to the needs the various specialties, should also be offered and required. For instance, those who specialize in pediatrics should be required to pass proficiency exams on all forms of child trafficking and how to identify/screen, examine, treat and report victims of child trafficking, while those who go into emergency medicine may have to learn about both child and adult trafficking. Gynecology and psychiatry may also require special focus on the nuanced health concerns of trafficked victims that go beyond a rudimentary understanding of human trafficking. If these specialized trainings are not available and only a basic HT course is offered during medical school years, at least all U.S. doctors will be cognizant of this growing issue – something that seems to be currently lacking and should be easily remedied.
In lieu of national, mandated courses and standards, every medical school should recognize HT for what it is – a major, global human rights and health issue – and incorporate HT education/training into their curriculum. Based on the results of our study, currently, there seems to be limited training on CST and most of it seems to be elective. In fact, less than 20% our study participants received training in medical school, while over 70% expressed interest in more training. This is substantiated by the fact that many of them turned to resources such as webinars, certifications, taskforces, hospital-organized events and grand rounds, and even knowledgeable colleagues for more education on the topic. It is imperative, thus, that education opportunities be increased, which can be accomplished by adding more online training programs.

Although it is difficult to ascertain exactly what form the education/training should take, from our study results, it seems that most desired a combination of lectures and bedside training, and a few specifically noted wanting more interdisciplinary, small group discussions and work, webinars and online education programs. It is our recommendation, thus, that education/training on CST/HT should incorporate a variety of methods to take into account that there are all types of adult learners. For instance, some prefer to listen and take notes, while others learn best through practical application in small group work. One participant even asked for more direct interaction with survivors to understand their issues and to become more comfortable with working with CST/HT victims.

Our study participants’ self-reported lack of knowledge and comfort with CST not only point to the gaps in education/training for CST, but may also be indicative of the lack of exposure to this issue. This seems to be a symptom of a systemic issue whereby certain medical ailments or conditions are not taught in medical school. For instance, gender-related and gender-
specific topics – a crucial determinant of health and illness – has largely been overlooked in medical education, research and practice. Such gender biases are still actively informing how patients’ needs are met, which gender issues are included in medical curricula, research topics, etc. (Verdonk et al., 2009). Although men and boys are also trafficked and “no neighborhood is immune to human trafficking activity,” most trafficking victims are women and girls from impoverished, low-income areas with a scarcity of education and jobs (Venkatraman, 2003, p. 2; TVPA, 2000). The continued marginalization and devaluing of poor women and girls may be why child sex trafficking and human trafficking have not made it into medical school curricula, but is something that needs to be corrected.

While human trafficking is seen mostly as an issue of the disenfranchised, this myth disregards the fact that most trafficking victims are sought by wealthy individuals in rich, “Western” nations who sustain this billion-dollar industry (Ngwe & Elechi, 2012) and, through their influence, keep it off of policy agendas. Unfortunately, in addition to criminal activity perpetrated by those like Epstein (described in Chapter Two), even those society counts on for help and protection, such as doctors and law enforcement officers, may be complicit in human trafficking. For instance, one study of key informants and survivors found that most of their traffickers had personal connections to healthcare providers in the very facilities where the victims were treated. In a couple of cases, the physician was related to the trafficker. One survivor even attested to working for traffickers in a healthcare facility. These kinds of scenarios make it difficult, if not impossible, for the CST victim and patient to be open about their needs and issues and find a remedy (Baldwin et al., 2011).
Corruption in law enforcement can also be a factor that perpetuates CST/HT and impedes disclosures of such illegal activity by physicians. In fact, of those study participants who perceived barriers, a substantial portion conveyed their fear of retaliation or inaction by authorities or their colleagues. Therefore, in addition to reform of law enforcement, changes may also be necessary in the ways in which law enforcement and healthcare providers work together to combat CST/HT. Helton (2016) proposes that:

law enforcement needs to train and work with health care providers to form a joint task force so that they can better identify, locate, and rescue human sex trafficking victims and that if law enforcement agencies and human trafficking task forces were to utilize the resources and contacts of front-line workers who regularly interact with human trafficking victims, due to the nature of the services they provide, human trafficking victims could be better identified and prosecuted. (p. 442)

Therefore, reform is needed on every level, including training all healthcare professionals about these issues and holding those who are in violation of their oath and duty to protect patients accountable for their actions. And state laws and regulations should be modified to explicitly permit healthcare providers to report human trafficking victimization and violations.

In addition, the majority of our study participants were white women and most of them were “not at all” or “slightly knowledgeable” about CST. This may be illustrative of the notion that women in a privileged class (based on income or education) are less aware of issues that plague primarily poor persons, such as human trafficking. Moreover, it is probably safe to assume that those who participated in our study came from the pool of doctors who thought the subject was important or at least interesting enough to take the survey. If these doctors who are interested in the topic are only slightly knowledgeable, it is likely that those who did not consider the survey important enough to answer are even less knowledgeable about CST.
Finally, CST is caused by several factors, some of which interact and others of which must be addressed separately. For example, corruption in police, attorneys, and health care professionals who collude with child sex traffickers will not be resolved through education, but primarily through public will and improved detection and prosecution of such corruption. This study focused on barriers related to education and training and institutional reform, which can only be overcome through partnerships with allied healthcare and other professionals such as nurses, social workers, grass roots organizers and non-profit organizations that work on CST/HT. For instance, some participants disclosed being overburdened and not having enough time with patients to properly screen them for CST. Others noted their unfamiliarity with procedures or community resources that may be available to their patients. By partnering with the various groups listed above and coordinating care, physicians will be better equipped to serve CST/HT victims that they may encounter in their practice settings.

Social Workers as Allies

One group with whom pediatricians should work closely to fight CST is social workers. According to the international definition of social work, developed by the International Federation of Social Workers (IFSW) in 2000, “The social work profession promotes social change, problem-solving in human relationships, and the empowerment and liberation of people to enhance well-being.” Utilizing theories of human behavior and social systems, social work intervenes at the points where people interact with their environments. Principles of human rights and social justice are fundamental to social work” (Hare, 2004). In the very definition of the profession, there is an understanding and expectation that social workers help people to be free and live healthy lives – a human right that CST victims do not enjoy.
In fact, the International Association of Schools of Social Work has been serving as a consultant to a branch of the United Nations (UN) since right after the UN’s inception and recognizes the need for social workers to: (1) educate social workers and social work educators about UN’s activities and how social workers can participate, and (2) educate the UN about how social work can help achieve shared goals – one of which is the protection of children from harm, as discussed in Chapter Two. Moreover, the National Association of Social Workers (NASW) recognizes that “social workers are in demand around the world” because their “unique skills and flexible approaches to problem-solving can help develop human potential in places where people have been oppressed and create peaceful, mutual solutions to strife-filled situations.”

It is the skills that social workers embody and their focus on social justice and human rights that make them the perfect allies to physicians working to fight CST. Moreover, health social workers assume a variety of roles in the design, delivery and evaluation of care and work in a myriad environment. In fact, their presence is growing in preventive and emergency medical services, which studies have shown CST victims to utilize. Social workers also facilitate linkages across systems and professions to provide better care for individuals and populations, with various levels of interdisciplinary collaboration (Gehlert & Browne, 2019).

Given the assistance that physicians require to identify and properly care for CST victims, social workers are the ideal partners for an interdisciplinary approach to serving the needs of CST victims in the clinical setting. In fact, the issues of time constraint and discomfort with the topic, which some of our study’s participants enumerate, could be solved by employing the assistance of social workers. However, not unlike pediatricians, they, too, need more
education about CST. According to Kotrla (2010), although most social workers are familiar with the issue of human trafficking, many are likely unfamiliar with issues of domestic child sex trafficking. It is our recommendation, therefore, that programs of social work also include a curriculum on child sex trafficking.

**Limitations and Recommendations for Future Research**

While the researcher is confident that a quantitative methodology was the correct choice for this study, there is a lot more that could have been unearthed by coupling this study with qualitative methods such as structured interviews of our study population and subject matter experts. While our study participants were able to indicate whether or not they faced obstacles while interacting with a victim of child sex trafficking, they were confined by the choices that were given to them. And, although there were opportunities for free-form answers/write-ins, there was no real incentive or way to elicit more from the participants. For instance, it is possible that some pediatrician respondents have had significant positive or negative experiences while seeking to report child sex trafficking. From a research standpoint, a follow-up study with more in-depth, open-ended questions may help us to better understand their exact experiences.

There were other instances in which the survey questions were limiting or problematic during analysis. For example, for the self-reported knowledge and comfort Likert scales, the option “neutral” although intended to mean “not sure” did not really provide any meaningful information, as there was no way to decipher what the participants may have meant by choosing that option – did they mean that they do not know how they feel or they did not want to answer or something entirely different? This led to us having to take all “neutral” responses out of our analysis, which felt like a great loss. In the future, we might have used a 4-point Likert scale,
eliminating the “neutral” option which will force the participant to choose one of the options offered, as people should be able to answer if they feel knowledgeable about or are comfortable with something or not. Or a reframing of the question from “How knowledgeable do you feel about…?” to “How knowledgeable are you about…?” may be better, as this subtle change eliminates the ambiguity connotated by the word “feel.”

Another example of a question that was limiting is the one about future training methodologies in which we should have listed all of the options that were present in the question about prior training. Having this 1:1 link between these two questions would have allowed us to see if our study participants preferred being trained in the methods they have previously experienced or if they wanted something different. We should have chosen either “identify” or “screen” for the question, “What, if any, of the following do you feel are barriers preventing you from being able to identify or screen a victim of child sex trafficking?” Having both words in the question was probably confusing for the respondents as they are synonymous in the medical field.

It is also necessary to mention that since our respondents could choose more than one type of prior training methods, we cannot determine the role of each type of training in increasing the respondent’s knowledge. Here, we have to assume that each training type has a confounding influence on the others – that the confounding factors are randomly distributed across each training type. In order to figure out exactly how much knowledge each training type contributed, we would have to do a regression analysis, which our study’s small sample size does not allow us to do (only 40% of our sample had prior training). However, we hope that future
research can help answer this question, evaluating the impact of different types of training once more people are trained.

There were also a few questions that provided us data that we were unable to analyze for this dissertation due to time, but should be explored further. For instance, we asked participants to name what medical school they attended and the zip code in which they practice medicine. The responses to the first question could help us determine if/how medical schools are training their students on child sex trafficking. It could also help us understand if some schools are doing better than others by comparing knowledge and comfort scores. The second question can help us determine if certain zip codes have more incidences of CST or better resources and responses from authorities.

Other limitations that were listed in Chapter One were the fact that we were unable to control the distribution of the survey to all American Academy of Pediatrics (AAP) members, and, therefore, did not know how many members of the AAP actually received the invitation to participate, which rendered us unable to calculate the response rate. A future study may send this survey to other member healthcare organizations such as the American Medical Association, the American Academy of Family Physicians to increase the number of participants and other allied healthcare professionals, such as nurses, physician assistants and social workers. By including these other types of professionals, who may also come into contact with sex trafficked children, we could have made a better assessment of the state of education and training on the topic of child sex trafficking and had more generalizable data.

Finally, by limiting our study to child sex trafficking, we may have missed the opportunity to assess pediatricians’ knowledge of other types of child trafficking, such as labor
trafficking, which can also morph into child sex trafficking. Moreover, it is quite possible that study participants did not truly distinguish child sex trafficking from child trafficking in general, so we cannot definitively state whether their reported knowledge and comfort is specifically related to child sex trafficking or child trafficking, in general. A future study should focus on human trafficking on a national level, surveying all types of physicians, to really understand if/how well this global, public health issue is being taught in medical schools in the U.S.

**Conclusion**

Human trafficking is a gross violation of human rights and is one of the fastest growing transnational crimes in the world (Ngwe & Elechi, 2012). Its clandestine nature makes it difficult to provide exact numbers, but it is estimated that approximately 20 million people are trafficked, globally, each year (UNODC, 2012), generating over $150 billion in annual profits (ILO, 2016). U.S. is the second largest destination for women and children, receiving about 50,000 victims each year, most of whom are trafficked into the sex industry for sexual exploitation (Heyzer, 2002 and Mizus, Moody, Privado, & Douglas, 2003, as cited in Schauer & Wheaton, 2006). Children from disadvantaged countries and communities are, in fact, the most vulnerable to human sex trafficking and suffer exceptional harms due to child sex trafficking (CST) and commercial sexual exploitation (CSE) that require special humanitarian and public health attention (Pittaro & Normore, 2016; Green, 2008).

For instance, due to the harsh conditions and physical and psychological abuses they may endure, victims of CST/CSE suffer destructive physical and mental health problems. They seek care during captivity for issues ranging from STIs and HIV testing to unintended pregnancies, violence-related injuries, depression, etc., in a variety of settings, including hospital emergency
departments, family planning clinics, and regular doctors (Greenbaum et al., 2018; Lederer & Wetzel, 2014; Curtis et al., 2008). In fact, studies show that as many as 87.7% of victims of human trafficking come into contact with the health care system while being trafficked (Lederer & Wetzel, 2014). However, many of these victims often go unrecognized during their medical visits (Tiller & Reynolds, 2020). This is truly unacceptable, as physicians may be the only adults with whom trafficked children come into contact and by not being able to recognize a victim of CST, physicians lose their opportunity to address the victims’ needs and notify authorities. This inability to recognize a CST victim is probably a result of the lack of education and training on this topic, as demonstrated through studies, such as this one.

For instance, 60% of our study participants, all pediatricians, did not receive any education or training on the topic of child sex trafficking, while about 40% reported only having “some” during medical school and residency. Moreover, almost 80% of our respondents felt only “slightly” or “not at all knowledgeable” about various aspects of care for a victim of CST and most cited their “lack of training” as a barrier to screening and treating CST victims, underscoring the great need to increase physician education and comfort in helping this population. These results corroborate findings from other studies that show that despite their belief that understanding human trafficking is of importance, most physicians and medical trainees have never identified a trafficking victim, would not know whom to call, and are generally unaware of the scope of the problem (Titchen et al., 2017). Yet another study specifically shows low levels of awareness about child trafficking among pediatric health care providers, supporting the need for clinical practice guidelines to aid evidence-based response to potential victims in the clinical setting (Peck, 2020).
We also found that a vast majority (over 70%) of our study’s participants desired more education and training on CST; and, in lieu of courses in medical school curricula, sought training via webinars, certifications, journal articles and conferences, to name just a few. Although commendable, medical students and professionals should not have to fashion their own curriculum on CST. The medical education community has a responsibility to their students and to public health to provide adequate training via required courses during medical school and residency. Training methods should include not only lectures, but bedside discussions, small group exercises, case studies and interaction with survivors. Furthermore, since victims and survivors of CST have a multiplicity of needs, training should not be limited to pediatricians or family physicians, but should be required of every medical student, despite their future specialty.

In fact, given that child sex trafficking is such a nebulous, difficult and growing issue, it needs the attention of more than just pediatricians. This public health issue has to be attacked on many levels by many different “players.” Interdisciplinary collaboration and action, especially between physicians and other allied healthcare is paramount and may be the only way to address this issue in the clinical setting. As our study’s respondents have noted, they do not have enough time or know of the community resources that are available to tackle this issue. Therefore, with the help of allied professionals such as social workers, who are trained to help those who have been oppressed reach their human potential, pediatricians can focus on their complement and, together, with other professionals, they can better attain continuity of care for CST victims.

We recognize pediatricians’ lack of awareness and essential skills may be the result of social, political and economic inequities on many levels. However, the medical community needs to act now; and our main recommendation is for accrediting bodies to mandate the
inclusion of standardized CST training in medical institutions for all pediatricians in the U.S. Given that children who are sex trafficked seek healthcare while in captivity, it is important that all medical professionals, and, pediatricians, in particular, are trained to be able to identify, treat and report cases of CST (Curtis et al., 2008). As Peck (2020) states, pediatricians are in an ideal position to intervene in a variety of ways on behalf of vulnerable children who are trafficked.

Furthermore, we believe that it is the responsibility of the entire medical community, particularly, medical and other professional schools to prepare all allied healthcare workers who are on the frontlines of this global public health issue with better and more education on the topic of child sex trafficking. In fact, education of pediatricians and allied healthcare workers such as nurses and social workers is the only way that we will be successful in forming an army that can tackle the insidious and ever-growing issue of child sex trafficking.
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VITA

Bidisha Sinha, PhD, is a public health professional currently working as a Senior Program Officer at the CDC Foundation. Prior to joining the CDC Foundation, Dr. Sinha served non-profit organizations and the federal government in various senior-level positions working on program and policy development and implementation on issues such as tobacco control, childhood obesity, domestic violence and HIV/AIDS. She has also been actively involved with several humanitarian organizations that work with/for those populations that are most vulnerable.

Dr. Sinha’s interest in this dissertation topic developed as a result of her personal and professional experiences. Growing up in India and during her visits over the years, Dr. Sinha witnessed a level of poverty and suffering that left a lasting impression on her. This served as the impetus for her commitment to serving those who are disenfranchised, especially poor women/girls who are often the victims of exploitation such as sex or labor trafficking. In addition, in her professional life, she encountered highly educated healthcare professionals who were not knowledgeable about the basics of human trafficking. Specifically, a group of pediatricians did not have any knowledge of how to identify or treat a victim of child sex trafficking.

Committed to the prevention of and fight against these systemic issues through practical solutions, Dr. Sinha dedicated her doctoral thesis to understanding if the education of pediatricians in the U.S. is sufficient, specifically on the topic of child sex trafficking. She hopes that the findings from this research will provide the evidence necessary for healthcare and allied
professionals to advocate for increased education and training on this topic; and, that ultimately, more trafficked children will be properly identified and treated by healthcare professionals and be saved from a lifetime of exploitation.

Dr. Sinha received her B.A. from Rutgers University, her M.P.H. from Columbia University, and her Ph.D. from Loyola University Chicago.