Medical Providers’ Understanding of Sex Trafficking and Their Experience With At-Risk Patients

Megan E. Beck, BSa, Megan M. Lineer, BSb, Marlene Melzer-Lange, MDc, Pippa Simpson, PhDd, Melodee Nugent, MAe, Angela Rabbitt, DOf

abstract

BACKGROUND AND OBJECTIVES: Sex trafficking (ST) victims have unique medical and mental health needs and are often difficult to identify. Our objectives were to evaluate knowledge gaps and training needs of medical providers, to demonstrate the importance of provider training to meet the pediatric ST victim’s specific needs, and to highlight barriers to the identification of and response to victims.

METHODS: A survey was sent to providers in specialties that would be most likely to encounter victims of ST. Participants included physicians, nurses, physician assistants, social workers, and patient and family advocates at multiple hospitals and medical clinics in urban, suburban, and rural locations.

RESULTS: Of ~500 survey recipients, 168 participants responded. In 2 clinical vignettes, 48% correctly classified a minor as an ST victim, and 42% correctly distinguished an ST victim from a child abuse victim. In all, 63% of respondents said that they had never received training on how to identify ST victims. Those with training were more likely to report ST as a major problem locally (P < .001), to have encountered a victim in their practice (P < .001), and to have greater confidence in their ability to identify victims (P < .001). The greatest barriers to identification of victims reported were a lack of training (34%) and awareness (22%) of ST.

CONCLUSIONS: Health care providers demonstrate gaps in knowledge and awareness of ST, specifically of pediatric victims, that correlate with their limited experience and training. Training is crucial to improve identification of these victims and provide appropriate care for their specific needs.

WHAT’S KNOWN ON THIS SUBJECT: Existing literature discusses the unique medical and psychological needs of sex trafficking victims and highlights the importance of screening patients with risk factors. However, little is known about providers’ knowledge and confidence in their ability to provide care to victims.

WHAT THIS STUDY ADDS: The study summarizes the knowledge gaps and barriers providers face when assisting pediatric sex trafficking victims. It also highlights the impact of training on providers’ confidence and ability to appropriately care for victims.
According to the Federal Trafficking Victims Protection Act of 2000, sex trafficking (ST) is defined as “a commercial sex act . . . induced by force, fraud, or coercion.”1 For victims <18 years of age, ST is any type of engagement in a sexual act for something of value.1,2 Although many health care providers come into contact with victims of ST, few recognize and identify them, resulting in potentially significant health consequences for this vulnerable population.3,4

The US government estimates that 14 500 to 17 500 people are brought to the United States annually for the purposes of labor or sexual exploitation, but this estimate does not include those who are trafficked domestically.5,6 An estimated 100 000 to 300 000 youth each year are at risk for sexual exploitation in the United States. However, victims are difficult to identify, and no comprehensive centralized database of victims exists, making it difficult to quantify the prevalence of trafficking among minors.2,5,6 In a representative sample of US adolescents, 3.5% disclosed they had exchanged sex for drugs or money in their lifetime.7 For adolescent female victims in the sex trade, the average age of entry was 12 to 14 years.6,8

Victims may be reluctant to disclose their victimization due to shame, fear of their trafficker, or fear that they will be arrested and prosecuted for prostitution. However, given the abusive nature of ST, many of these child victims seek medical care. In fact, when ST victims were surveyed, 28% to 50% stated they were seen by a health care provider while they were being trafficked but were not recognized as ST victims.9,10

In an illustrative case from our institution, a 16-year-old girl came to the emergency department after being assaulted by her pimp when she refused sexual contact. Although she was treated for the physical assault and disclosed recent coercive sexual contact, she did not receive medical treatment for sexual assault. She had a history of multiple medical screening evaluations after running away and numerous visits for sexually transmitted infections, suicidal ideation, and high-risk sexual behaviors. Despite presenting with these common risk factors, she had never been screened for trafficking. This represented a missed opportunity for intervention and placed her at risk for continued harm. It is therefore imperative that health care providers acquire the knowledge and training to help victims.3

Pediatric ST victims often report severe physical and sexual violence while being trafficked.8,11 They often experience an inadequate diet and hygiene, substance abuse, neglect, and poor access to health care.12 Psychological abuse associated with removal from their families, isolation, ongoing threats, and witnessing the abuse of others can cause profound effects on their health. This abuse can result in higher rates of depression, posttraumatic stress, anxiety, and somatic complaints in these patients.13 It is therefore vitally important that health care workers be able to recognize ST so that early intervention is feasible.

Although existing literature discusses these common physical and psychological findings of ST victims, little is known about providers’ knowledge of and experience with these victims.3,4,14 Additionally, few guidelines are available to direct the medical care of pediatric victims. However, providers can serve as the first line of defense in identifying and subsequently connecting victims with the appropriate services. Therefore, the purpose of this study is to evaluate the knowledge gaps and training needs of medical providers, to highlight the importance of training for a pediatric victim’s specific needs, and to demonstrate the barriers to the identification of and response to victims. These results can then be used to inform future educational projects.

METHODS
We developed the survey by using previous literature about knowledge gaps in the general community and among service providers. It was reviewed by an expert in survey development and physician experts in ST to determine face validity. It was then transferred to electronic format via online survey development software (SurveyMonkey, Palo Alto, CA). The project was approved by the Medical College of Wisconsin Institutional Review Board. Outside institutions deferred institutional review board review. Participation in the study was voluntary and anonymous.

Study Population
Physicians, nurses, nurse practitioners, physician assistants, social workers, and patient and family advocates at multiple hospitals and medical clinics in urban, suburban, and rural locations in southeastern Wisconsin were targeted as survey subjects. We anticipated that primary care providers, social workers, and subspecialties that frequently provide reproductive health care or services to trauma victims would be more likely to encounter victims. Therefore, surveys were sent to providers and staff in the fields of social work, general pediatrics, adolescent medicine, child abuse pediatrics, internal medicine, emergency medicine, obstetrics and gynecology, sexual assault nurse examiners, and urban free clinics. Social workers either worked in a medical setting or were employed by the Children’s Hospital of Wisconsin and contracted to provide child welfare services throughout the region. Medical students, residents, and fellows were excluded because we wanted to assess the knowledge level of practicing providers after completion.
of their training. The survey was sent to the chairs of the aforementioned departments for distribution to their employees who met the inclusion criteria.

Survey
The survey was titled “Healthcare Providers’ Understanding of and Experience With At-Risk Patients.” Participants did not initially know the survey was about ST. The definition of trafficking was given in the middle of the survey to assess whether this changed responses to questions.

The survey consisted of demographic data from each respondent, including occupation, gender, clinical setting (eg, urban versus suburban, academic versus private versus emergency department), and the percentage of children and adolescents in their patient population.

Before the definition of ST was given, early questions included clinical vignettes about ST to determine whether survey participants could accurately identify victims. Answer choices included highly likely, somewhat likely, somewhat unlikely, and highly unlikely. We included a number of questions about the definition of trafficking and common myths to assess participants’ understanding of ST. Answer choices for these questions included true or false or usually, sometimes, rarely, or never. Additional questions directly assessed participants’ perceptions about the scope of the problem and confidence in their ability to identify victims, including barriers to identification. Subjects could not return to previous questions to change their responses once they had answered.

A scoring system was developed to assess appropriate, victim-supportive responses to knowledge and belief questions. One point was given for each correct response. The total possible score was 12 points.

Data Analysis
A statistical analysis was conducted with frequencies and percentages to elucidate trends and correlations in the survey results. Nonparametric tests and Fisher’s exact test were used for categorical data. Because of the multiple comparison groups in the data, a $P$ of $\leq .01$ was considered significant.

RESULTS
Demographics
Because we distributed the survey through department leaders, we cannot determine the exact number of survey recipients. The maximum number of recipients using this method would have been $\sim 500$. We received a total of 168 responses, so we conservatively estimate the response rate to be 34%.

Demographics are reported in Table 1. The majority of the respondents were female. The highest percentage (42%) of respondents was social workers, of whom 37% worked in a medical setting and 14% were contracted by child protective services. The next highest percentages were physicians (24%) and the choice “other” (1%). Participants identifying as other were most often patient and family support staff (family and parent educators, outreach workers, and intake staff). For statistical comparisons between occupations, social workers and patient and family support staff were combined ($n = 94$ [56%]). Medical providers (physicians, nurses, nurse practitioners, and physician assistants) were combined into a separate category ($n = 74$ [44%]). Most respondents worked in urban settings, emergency departments, or academic centers. A little more than half of the respondents worked in an urban setting.

### Table 1: Respondent Demographics and Training

<table>
<thead>
<tr>
<th>Characteristics (n)</th>
<th>No. (%) of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender (167)</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>15 (9)</td>
</tr>
<tr>
<td>Female</td>
<td>152 (91)</td>
</tr>
<tr>
<td>Occupation (168)</td>
<td></td>
</tr>
<tr>
<td>Physician</td>
<td>40 (24)</td>
</tr>
<tr>
<td>Nurse practitioner</td>
<td>11 (7)</td>
</tr>
<tr>
<td>Nurse</td>
<td>15 (9)</td>
</tr>
<tr>
<td>Physician assistant</td>
<td>6 (3)</td>
</tr>
<tr>
<td>Social worker</td>
<td>71 (42)</td>
</tr>
<tr>
<td>Patient and family support</td>
<td>23 (14)</td>
</tr>
<tr>
<td>Other</td>
<td>2 (1)</td>
</tr>
<tr>
<td>Location (115a)</td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>91 (55)</td>
</tr>
<tr>
<td>Suburban</td>
<td>24 (14)</td>
</tr>
<tr>
<td>Clinical setting (139a)</td>
<td></td>
</tr>
<tr>
<td>Academic medical center</td>
<td>35 (25)</td>
</tr>
<tr>
<td>Emergency department</td>
<td>58 (41)</td>
</tr>
<tr>
<td>Urgent care</td>
<td>1 (1)</td>
</tr>
<tr>
<td>Primary care clinic</td>
<td>5 (4)</td>
</tr>
<tr>
<td>Free clinic</td>
<td>1 (1)</td>
</tr>
<tr>
<td>Other</td>
<td>39 (28)</td>
</tr>
<tr>
<td>Percentage of children in respondent's practice (167)</td>
<td></td>
</tr>
<tr>
<td>100%</td>
<td>92 (55)</td>
</tr>
<tr>
<td>&gt;50%</td>
<td>48 (28)</td>
</tr>
<tr>
<td>&lt;50%</td>
<td>24 (15)</td>
</tr>
<tr>
<td>0%</td>
<td>2 (1)</td>
</tr>
<tr>
<td>Training on sex trafficking (160)</td>
<td></td>
</tr>
<tr>
<td>With training</td>
<td>60 (38)</td>
</tr>
<tr>
<td>Without training</td>
<td>100 (62)</td>
</tr>
</tbody>
</table>

* Respondents were allowed to skip questions and could choose $>1$ clinical setting; therefore, totals for individual questions may not equal 168.
exclusively pediatric setting. Throughout the survey, respondents were allowed to skip questions; therefore, each question had different response totals.

**General Knowledge About ST**

Table 2 describes respondents’ answers to 5 common myths about ST. The majority of respondents (85%) correctly reported that ST does not require travel, transfer, or movement across state or national borders. Furthermore, 90% correctly reasoned that a patient could be considered a victim of ST even if he or she initially “consented” to be in their situation. Most respondents thought that victims of ST are sometimes men (89%), usually women (78%), and sometimes come from situations of poverty or small, rural towns (78%).

A 2-part clinical vignette from the survey assessed beliefs about force and coercion in victims who are minors. Even though the child would meet the legal definition of trafficking in the initial scenario, the percentage who thought trafficking was highly likely increased significantly when respondents learned the minor is experiencing forceful coercion and that a pimp is involved. Respondents who had training were significantly more likely to identify her as a trafficking victim in the first scenario (67% vs 37%; P ≤ .001). Medical providers were also significantly more likely to label the child as a victim in the first scenario when compared with social workers and patient and family support staff (64% vs 35%; P = .002).

Another clinical vignette describes a 17-year-old girl who discloses having sex with multiple adult men for money but is uncooperative when the provider reports concerns to investigators. In this scenario, 10% of respondents labeled her a “prostitute” rather than a victim of ST (58%). Furthermore, 22% thought she was a victim of child abuse, and 10% were not sure how to classify her. Those with training were significantly more likely to classify her a victim of ST compared with those without training (75% vs 49%; P = .009).

Furthermore, 1 survey question asked how to best classify a child whose mother permits her daughter to have sex with unrelated men so that her mother can pay the rent. Although this situation would meet the legal definition of ST according to federal and Wisconsin state statutes, most respondents classified this case as child sexual abuse (52%).

**Effects of Training on Knowledge and Awareness of ST**

Of the 168 survey participants, 63% reported they had never received training in how to identify and assist ST victims, whereas 37% had received training. Those with training were significantly more likely to work in an urban setting than those who did not (68% vs 45%; P = .005). No respondent who worked in a primary care clinic or urgent care clinic reported training.

Figure 1 shows that respondents with training were significantly more likely to think ST is a major problem locally, were more likely to have encountered a victim in their practice, and reported more confidence in their ability to identify victims. Overall knowledge scores for those with training (median 10; range 4–12) were significantly higher than for those without training (median 8; range 4–12) (P ≤ .001).

The number of correct responses for the knowledge questions of the survey was also compared with confidence levels. Only those who answered all 12 questions were considered in the comparison. Those who reported a higher confidence in identifying victims of ST were significantly more likely to answer the knowledge questions correctly than those who reported lesser confidence (P ≤ .001).

**Response to ST Victims and Barriers to Their Identification and Care**

Figure 2 depicts the action steps respondents took after encountering a victim of ST. These values were calculated by excluding the respondents who reported they had never encountered an ST victim. Respondents were allowed to select >1 answer. Of the total participants, the majority (69%) said they called child protective services and the local police. Of those who see only children and adolescents, 61% contacted law enforcement and 64% contacted child protective services, even though reporting of pediatric ST is mandated for pediatric victims. In some cases, however, subjects reported they did not call the authorities because reports had already been made by

---

**TABLE 2 Common Myths About ST**

<table>
<thead>
<tr>
<th>Myth</th>
<th>No. (%) of Respondents^a</th>
</tr>
</thead>
<tbody>
<tr>
<td>ST must involve travel, transfer, or movement across state or national borders</td>
<td>False 138 (85) True 11 (7) Don’t Know 14 (8) Total 163</td>
</tr>
</tbody>
</table>
someone else. Respondents were significantly more likely to call the national hotline for human trafficking or refer the patient to human trafficking services if they were social workers or patient and family support staff (45%) compared with medical providers (14%; \( P \leq .001 \)) or if they had received training (\( P \leq .001 \)).

Finally, Fig 3 displays reported barriers to the identification of and response to victims. The most common response was lack of training on ST, followed by lack of awareness. Those without training were more likely to report this lack as the greatest barrier to identification (47% vs 14%; \( P \leq .001 \)). In all, 95% of respondents were interested in learning more about victim identification.

**DISCUSSION**

The survey results highlight the importance of training and its ability to increase health care workers’ understanding of ST, their awareness of the issue locally, and skills in identifying and caring for victims (Fig 1). Furthermore, respondents reported the lack of training and awareness as their greatest barriers (Fig 3). Medical and mental health providers at the Children’s Hospital of Wisconsin and the Milwaukee County Juvenile Detention Center have recently implemented training and guidelines for the care of pediatric ST victims. Although research is ongoing, providers note a significant increase in the number of victims identified since implementation of provider training. Additionally, training increased the respondents’ confidence in identifying trafficking victims and their competency in doing so. These results suggest that increased training and awareness may improve the ability to identify victims and prevent or mitigate the physical and mental health consequences to this vulnerable patient population.

Many health care providers do not endorse most common community misconceptions about trafficking. However, many respondents were unable to correctly label a pediatric ST victim until they learned coercion was involved, even though it is not required for the legal definition of child ST according to federal and local state statutes. An important minority of providers (10%) labeled a child victim a “prostitute” rather than an ST victim. These responses reflect community beliefs that children involved in the sex trade are responsible for their victimization. Additionally, these beliefs perpetuate a poor understanding of the exploitive nature of traffickers and buyers of sex. As in other surveys of service providers and law enforcement, confusion on what constitutes a trafficking victim increases the risk of missed opportunities to identify and assist victims.\(^{15}\)

In a vignette describing a child being trafficked by a caregiver, respondents more often classified it as child abuse rather than trafficking. Although ST of
minors is a form of child abuse, the health needs of trafficking victims often differ from those of child abuse victims. ST victims suffer multiple levels of trauma. Up to 78% of trafficking victims report a history of child neglect, physical abuse, or sexual abuse before being trafficked.11 Their trauma is compounded by recurrent physical and sexual violence by traffickers and by community stigmas associated with "prostitution."11 Mental health programs designed for child abuse victims often do not meet the complex needs of trafficking victims. In addition, residential treatment centers and group homes designed for child abuse victims may not provide the security to deter continued coercion by traffickers.16 Therefore, providers must accurately report concerns about trafficking to initiate the proper protocols, which connect victims to the appropriate services. In addition, the multiple mental and physical health problems associated with ST make it a public health issue, and correctly reporting each case will help other service providers and law enforcement locate and care for other victims.17

Beyond the lack of training and awareness, many respondents also stated that the lack of an organizational policy or coordinated, strategic response to victims is a significant barrier. The wide array of action steps reported by respondents who had encountered victims reflects this problem (Fig 2). Without a well-defined protocol, many health care workers are not confident in their ability to connect patients with the necessary services.15,17 This lack of confidence may affect their willingness to screen potential victims.13 As a result, many victims are at risk for not being identified or connected with the appropriate services they need.18 National guidelines for medical responses to victims are available; however, individual community responses to trafficking victims vary. These guidelines can be used to develop local protocols for the initial care and ongoing case management of victims (see Table 3 for a summary of resources). This collaboration between medical providers, investigators, and other community organizations can also provide opportunities to educate community partners about the unique medical and mental health needs of this population.

**Limitations**

Given our distribution method, our conservative estimate of the response rate was only 34%, but it may be higher. As in any survey study, there is potential for survey return bias, although we tried to limit this factor by not including ST in the survey title and thus prematurely identifying the

**TABLE 3 Resources for Identification and Care of Pediatric Trafficking Victims**

<table>
<thead>
<tr>
<th>Resource</th>
<th>Date of Publication</th>
</tr>
</thead>
</table>
survey’s focus. However, based on our knowledge of local training for medical providers, the number of respondents who reported they had received training was higher than expected. Including the term “high-risk patients” in the survey title could have increased the response rate for those who work more closely with this population. In addition, we attempted to send the survey to providers who would be likely to encounter victims. This measure could bias the survey with a higher level of knowledge, confidence, and experience than the general population of physicians. We anticipate that random surveys of providers would result in lower knowledge scores and confidence levels.

Next Steps
Both the US Department of Justice and the American Medical Association support and encourage efforts to prevent ST and rescue victims. These survey results can be used to develop effective educational programs that improve providers’ awareness, confidence, and ability to identify and assist victims. A strategic, coordinated health care response to identified ST victims will help reduce the health consequences these victims face, ensure patients’ quality of care and safety, and improve efforts to address this important public health issue.

CONCLUSIONS
Health care providers demonstrate a lack of knowledge and awareness of ST that correlates with their limited experience and training. Additional provider education may improve the identification and medical care of victims and may improve victims’ access to important community resources.

ACKNOWLEDGMENTS
We thank our community and medical partners at the Human Trafficking Task Force of Greater Milwaukee, the Children’s Hospital of Wisconsin Child Advocacy Center, and the Wisconsin Medical Society Foundation for their support of summer research students. We also thank Claudine O’Leary for her guidance in background literature and specific statistics about ST in Milwaukee.

FINANCIAL DISCLOSURE: The authors have indicated they have no financial relationships relevant to this article to disclose.

FUNDING: Funding for the medical student summer research stipends was provided by the Wisconsin Medical Society Foundation, Inc. Children’s Research Institute and Clinical and Translational Science Institute (of Southeast Wisconsin) also provided funding for biostatistical support.

POTENTIAL CONFLICT OF INTEREST: The authors have indicated they have no potential conflicts of interest to disclose.

REFERENCES


14. Isaac R, Solak J, Giardino A. Health care providers training needs related to human trafficking: maximizing the


Medical Providers' Understanding of Sex Trafficking and Their Experience With At-Risk Patients
Megan E. Beck, Megan M. Lineer, Marlene Melzer-Lange, Pippa Simpson, Melodee Nugent and Angela Rabbitt

Pediatrics; originally published online March 16, 2015;
DOI: 10.1542/peds.2014-2814

Updated Information & Services
including high resolution figures, can be found at:
http://pediatrics.aappublications.org/content/early/2015/03/11/peds.2014-2814

Subspecialty Collections
This article, along with others on similar topics, appears in the following collection(s):
For Your Benefit
http://pediatrics.aappublications.org/cgi/collection/for_your_benefit

Permissions & Licensing
Information about reproducing this article in parts (figures, tables) or in its entirety can be found online at:
http://pediatrics.aappublications.org/site/misc/Permissions.xhtml

Reprints
Information about ordering reprints can be found online:
http://pediatrics.aappublications.org/site/misc/reprints.xhtml

PEDIATRICS is the official journal of the American Academy of Pediatrics. A monthly publication, it has been published continuously since 1948. PEDIATRICS is owned, published, and trademarked by the American Academy of Pediatrics, 141 Northwest Point Boulevard, Elk Grove Village, Illinois, 60007. Copyright © 2015 by the American Academy of Pediatrics. All rights reserved. Print ISSN: 0031-4005. Online ISSN: 1098-4275.
Medical Providers' Understanding of Sex Trafficking and Their Experience With At-Risk Patients
Megan E. Beck, Megan M. Lineer, Marlene Melzer-Lange, Pippa Simpson, Melodee Nugent and Angela Rabbitt

Pediatrics; originally published online March 16, 2015;
DOI: 10.1542/peds.2014-2814

The online version of this article, along with updated information and services, is located on the World Wide Web at:
http://pediatrics.aappublications.org/content/early/2015/03/11/peds.2014-2814