

# Child modern slavery, trafficking and health: a practical review of factors contributing to children's vulnerability and the potential impacts of severe exploitation on health

Laura C N Wood 

**To cite:** Wood LCN. Child modern slavery, trafficking and health: a practical review of factors contributing to children's vulnerability and the potential impacts of severe exploitation on health. *BMJ Paediatrics Open* 2020;**4**:e000327. doi:10.1136/bmjpo-2018-000327

Received 12 December 2019

Revised 9 March 2020

Accepted 24 March 2020

## ABSTRACT

Child trafficking is a form of modern slavery, a rapidly growing, mutating and multifaceted system of severe human exploitation, violence against children, child abuse and child rights violations. Modern slavery and human trafficking (MSHT) represents a major global public health concern with victims exposed to profound short-term and long-term physical, mental, psychological, developmental and even generational risks to health. Children with increased vulnerability to MSHT, victims (in active exploitation) and survivors (post-MSHT exploitation) are attending healthcare settings, presenting critical windows of opportunity for safeguarding and health intervention. Recognition of child modern slavery victims can be very challenging. Healthcare providers benefit from understanding the diversity of potential physical, mental, behavioural and developmental health presentations, and the complexity of children's responses to threat, fear, manipulation, deception and abuse. Healthcare professionals are also encouraged to have influence, where possible, beyond the care of individual patients. Research, health insights, advocacy and promotion of MSHT survivor input enhances the collaborative development of evidence-based approaches to prevention, intervention and aftercare of affected children and families.

## INTRODUCTION

'Modern slavery' is an umbrella term for criminal acts of severe human exploitation.<sup>1</sup> For victims under the age of 18 years, modern slavery in its myriad forms is considered violence against children (as defined by WHO<sup>2</sup>), child abuse and a gross child rights violation compelling an urgent safeguarding and healthcare response.

Child trafficking, perhaps the most recognised form of child modern slavery is legally defined in the UK as the 'recruitment, transportation, transfer, harbouring or receipt' of a child (<18 years of age) for the purpose of exploitation.<sup>3</sup> Trafficking typically involves the deliberate relocation (once or

## Key messages

- ▶ Child modern slavery and human trafficking (MSHT) is a global public health concern with profound risks to life-course health and development.
- ▶ Children from all ages, genders, homes, backgrounds and socioeconomic status may be exploited.
- ▶ Breakdown of social protective barriers (including migration), significant relational dysfunction or loss (including child abuse, removal from family) and economic stress can increase vulnerability to MSHT.
- ▶ Child MSHT victims are presenting in healthcare settings yet may remain undetected.
- ▶ Physical, mental, emotional, behavioural and developmental health presentations of child MSHT victims and survivors can be complex.
- ▶ Child MSHT victims may not have confidence in healthcare staff or systems—trust needs to be built.
- ▶ Health professionals from all disciplines are encouraged to engage in the development of evidence-based, survivor-informed approaches to the prevention, intervention and aftercare of children and families subjected to MSHT.

multiple times) of a victim locally, nationally or internationally resulting in isolation, victim disorientation and dependence. For children exploited for sex, trafficking and generic child sexual exploitation (CSE) terminology may be inconsistently applied.<sup>4</sup> Children may be trafficked or enslaved for a range of purposes (detailed in table 1) that frequently overlap or occur on a continuum within and beyond childhood. In all nations, local regions also have trafficking and exploitation purposes unique or nuanced to local demand (such as child soldiers,<sup>5</sup> child camel jockeys,<sup>6</sup> fishing,<sup>7</sup> witchcraft practices,<sup>8</sup> forced surrogacy<sup>9</sup> and illegal adoption for exploitation) with directly associated health impacts.

Children of any nationality, legal status, gender and age can be at risk of trafficking.



© Author(s) (or their employer(s)) 2020. Re-use permitted under CC BY-NC. No commercial re-use. See rights and permissions. Published by BMJ.

Centre for Child & Family Justice Research, Lancaster University  
Department of Sociology,  
Lancaster, UK

## Correspondence to

Dr Laura C N Wood; laura.wood@lancaster.ac.uk

**Table 1** Forms of modern slavery of children and adolescents with examples (global, non-exhaustive)<sup>1 58</sup>

Modern slavery format	Examples
Debt bondage/bonded labour	<ul style="list-style-type: none"> <li>▶ Frequent form of modern slavery where the victim is forced to work to pay of a debt (this may include repayment of a 'gift' of sportswear or other item previously received by the child).</li> <li>▶ Victim has little control over their debt which is often manipulated and increased exponentially to maintain control.</li> <li>▶ Linked to all other forms of exploitation.</li> </ul>
Human trafficking (child)*	<ul style="list-style-type: none"> <li>▶ Defined as the 'recruitment, transportation, transfer, harbouring or receipt' of a child (&lt;18 years of age) for the purpose of exploitation.<sup>3</sup></li> </ul>
Labour exploitation	<ul style="list-style-type: none"> <li>▶ Forced work in businesses or sites including building, agriculture, food and manufacture industries. Victim may live on site.</li> <li>▶ An adolescent victim may also hold a legitimate job* but perpetrators hold control over the victim's bank account.</li> </ul>
Domestic servitude	<ul style="list-style-type: none"> <li>▶ Victim may be forced to undertake household chores (may include childcare) for partner and often relatives. If in the context of marriage, this may be forced, arranged and/or in conjunction with other forms of domestic and sexual abuse.</li> <li>▶ Victims (including young children) may be exploited by relatives and extended family for household duties. Schooling and free play may be denied.</li> <li>▶ Victims may be forced to stay with, and work for unrelated strangers. Victims are often confined to the property.</li> </ul>
Sexual exploitation	<ul style="list-style-type: none"> <li>▶ Victims may be exploited by individuals or groups of offenders and may be frequently relocated for abuse. Victims may be advertised online.</li> <li>▶ Victims may be trafficked and exploited in fixed brothel settings or rooms in businesses (ie, massage parlours).</li> <li>▶ Victims may be trafficked for the personal gratification of the offender(s) which may include long periods of victim confinement.</li> <li>▶ Victim may be forced to perform or be subjected to sexual acts online or for imagery.</li> </ul>
Criminal exploitation	<ul style="list-style-type: none"> <li>▶ Forced gang-related criminal activity, commonly related to drug networks including 'County Lines' drug distribution using dedicated phone lines.</li> <li>▶ Forced labour for illegal purposes, including cannabis cultivation.</li> <li>▶ Forced acquisitive crimes including pickpocketing and shoplifting.</li> <li>▶ Forced begging.</li> <li>▶ Financial and benefit fraud. Children's bank accounts may also be used for money laundering.</li> <li>▶ Trafficking for forced, sham marriage.</li> </ul>
Descent-based slavery	<ul style="list-style-type: none"> <li>▶ Children born into slavery because of their class, caste or parental situation.</li> </ul>
Organ harvesting	<ul style="list-style-type: none"> <li>▶ Forced organ removal, particularly kidneys, although blood and other organs may be acquired for sale.</li> </ul>

\*In the UK, children may work limited hours in certain jobs from 13 years old, and full time from 16 years. The exception is children with performance licenses (acting, modelling etc).<sup>59</sup>

Risks increase when social protective networks are fractured secondary to intrafamilial or societal tensions, rejection of a child and aspects of their identity (including gender, sexuality, religion or disability), war or armed conflict, persecution, breakdown of the rule of law, climate emergencies and ensuing migration journeys.<sup>10</sup> Trafficking adds complexity to international child, refugee and asylee care and the safeguarding of children accused of criminal activity. Vulnerable families may also be trafficked as a unit, requiring consideration of parental context when child abuse concerns are raised.<sup>11</sup>

Global estimates of slavery and trafficking victim numbers are higher now than at any prior point in human history, with over 40 million individuals directly impacted, 1 in 4 of whom are children. Millions more are affected indirectly, including children of a trafficked parent.<sup>12</sup>

Accurate child trafficking statistics are notoriously difficult to ascertain, and official figures may be misrepresentative of victim numbers, diversity and lived experience of slavery. Data collection challenges are numerous and include the complex, covert, hostile and highly lucrative

nature of the crime (second only to the illegal drugs trade), with significant imbalances of power, wealth and impunity perpetuating it. Modern slavery practices function to suppress help-seeking behaviour through psychological and physical means, distancing victims from recognition, support and research.<sup>13</sup> Accurate victim identification by authorities may also be hindered by distracting stereotypes of victim vulnerability and presentation. Discriminatory practices (particularly where victim identification and immigration status are interlinked) have also been raised as concerns within government victim-identification and support mechanisms.<sup>14</sup> Additionally, disparities in trafficking definition use, inconsistencies in data collection methodologies, recording and analysis hamper precise measurement.<sup>15 16</sup>

In the UK, recent Home Office National Referral Mechanism statistics continue to demonstrate a rising trend in referrals of potential victims. Between 1 July and 30 September 2019, 2808 potential victims were referred of whom 40% claimed exploitation as a minor. These figures represent a 61% increase in overall victim referrals from the same quarter in 2018. Ninety-one nationalities of

origin were represented, with British nationals denoting 26% of potential victims. Labour exploitation (which includes criminal exploitation) is the dominant detected exploitation format for both adults and children.<sup>17</sup>

Children with increased vulnerability to modern slavery and human trafficking (MSHT), victims (in active exploitation) and survivors (post-MSHT exploitation) are attending healthcare settings, offering critical windows of opportunity for safeguarding and intervention in the trajectory of potential severe health harm.<sup>18 19</sup> Victimised children may present with their traffickers or associates (who may be family members) when a health need impacts their ability to work or earn.<sup>20</sup> Other children may seek support unaccompanied, in crisis, in conjunction with police, emergency service or immigration authority action. The status of the child as a trafficked person may be known at the time of presentation for healthcare or may be identified at some point in generic health services, mental health and addiction support, sexual health, maternity or foster care. Modern slavery also has significant intersectionality with other forms of community, familial and interpersonal violence. Health and social care professionals should consider exploitation in such presentations, as the concept and articulation of slavery or trafficking is frequently not used or understood by victims.

Health and social care staff should recognise that trafficked children may not hold any automatic trust of staff or healthcare systems. International victims particularly may have little experience with doctors, dentists or other staff and may poorly understand their roles, trustworthiness or UK patient-engagement styles. Children may have previously experienced exploitation or been disbelieved by other adults who held a position of trust or authority, including those in health, social care, immigration or other systems designed to protect.<sup>21</sup>

While recognition and care of potential child victims can be challenging, health professionals from all disciplines are encouraged to build on their pre-existing safeguarding, healthcare and interpersonal skills to become astute to potential markers of slavery, exploitative abuse and trauma. Children are unable to consent to exploitation<sup>22</sup> and a child's apparent complicity or criminal intent, normalisation of their abusive situation or emotional attachment to perpetrators should be viewed through a trauma-informed, non-judgemental lens.

### Vulnerabilities rooted in pretrafficking experiences

Research regarding pre-trafficking vulnerabilities remains very limited. Simplified push and pull factor models of understanding why certain children are trafficked may mask complex and fluid interactions of cultural, societal, familial, economic and intrinsic vulnerabilities. However, due to the significant intersectionality between trafficking and more researched fields of abuse and trauma such as domestic violence, CSE, children in state care and refugee health, the consideration of trafficking risks can be cautiously expanded. Given the

diverse origin countries of trafficked children in the UK, this article takes a global lens on health risks and recognises that trafficking experiences must be considered in the context of the whole life course of the child. Equally, while this article focusses on vulnerabilities pertaining to the child, no blame is placed on the victim and the location of the child in a much wider system of inadequate protection is recognised.<sup>21</sup>

Many children who are subjected to slavery have experienced family situations of economic stress.<sup>23</sup> While it is important not to assume economic stress leads to a negative childhood, it can be associated with detrimental social, health and developmental circumstances beginning in the preconception environment, through in utero growth, infancy and childhood.<sup>24</sup> Challenges may include lack of antenatal care, low birth weight, lack of medical and preventative healthcare (including vaccinations), food insecurity, poor nutrition and suboptimal housing environments (ie, exposure to waste, hazardous chemicals and reduced air quality). Children may have difficulties accessing education and engaging in learning due to fatigue, reduced concentration, stress and behavioural expressions of unmet need. Illiteracy, innumeracy and fewer years of school attendance heighten trafficking vulnerability.<sup>25</sup> Severe carer stress and generational poverty factors may also impact parenting ability and availability, health, life choices, expectations and opportunities.<sup>24</sup>

Deeply embedded issues of stigmatisation, honour, shame and survival threat can compound situations of poverty leading to complex views on the value and expectations of male and female children, personal sacrifice and the acceptability of risking the well-being of a child (or a child risking their own well-being) in the pursuit of employment, money, it's culturally associated values and survival.<sup>26</sup> Traffickers frequently exploit those in dire circumstances by offering hope of work, finance, food, shelter, love, personal independence, education, opportunity and honour to those who see no other option and to whom a fragment of hope is irresistible. With a double effect, when the victim realises their abusive trap they may feel further shame and responsibility for their situation, compounding the challenges of seeking help. For international victims whose family are engaged in the trafficking scenario (wittingly or unwittingly), traffickers may have also extracted relatively large sums of money, touted to be for visas, flights or documents and be demanding a large payment of high-interest debt for the arrangement of the child's 'new job'. Families may have taken bank loans or loan shark finances to facilitate this and the victim will be aware that the family will be crippled by debt or assaulted should money not be provided.<sup>27</sup> In many countries, such trafficking and exploitation of the poor is further compounded by police and justice system corruption and perpetrator impunity.<sup>28</sup> In contrast with many media portrayals of child trafficking, the kidnapping or abduction of children for the purpose of exploitation is significantly less common, although these methods may

peak in certain circumstances, such as forced recruitment of child soldiers by rebel groups.<sup>29</sup>

Children who have experienced child abuse, forms of violence, familial dysfunction, relational loss and removal into foster care represent a disproportionate percentage of trafficked children.<sup>30</sup> Children in these circumstances have often been exposed to significant relational trauma leading to complex attachment difficulties and a sense of worthlessness and shame.<sup>31</sup> Additionally, there is a higher prevalence of fetal alcohol spectrum disorders and in utero substance exposure in this population.<sup>32</sup> All of this early adversity may contribute to developmental problems, educational and relational difficulties, decreased danger awareness and increased vulnerability to manipulation.<sup>33</sup>

### GROOMING FOR EXPLOITATION

Traffickers are able to observe the vulnerable child directly, or online, and apply grooming techniques to gain trust. Such tactics often appear to address the unmet needs of a child—praise, flattery, value and worth, the promise of romance, love, adventure and a good future, provision of material goods and gifts that may secondarily enhance status and the pride of feeling ‘hand-picked’ and accepted in an aspired-to peer group.<sup>34</sup> Tactics also deliberately seek to isolate the child from existing carers, friends, support networks and to vilify police or other potentially helpful authorities.

Traffickers may use deception and manipulation to build complex psychological scaffoldings around a child for a short period of time before beginning insidious psychological abuse (may include spiritual abuse), blackmail, overt abuse, violence and exploitation which may continue to be layered with expressions of love, value or sole provision for basic human needs. In doing so, powerful survival response trauma-bonds are created between victim and trafficker that may negate the need for physical restraint.<sup>35</sup> Trafficking should also be considered in the context of gang activity, violence and the illegal drugs trade.<sup>36</sup> Trafficking can also be a significant component of radicalisation practices.<sup>37</sup>

### UNCLEAR STATUS: VICTIM, OFFENDER OR BOTH?

Determining the boundary between the child as ‘crime victim’ and the child as ‘crime perpetrator’ can present an incredibly complex challenge at multiple levels. Key examples include the ongoing criminalisation of ‘child prostitutes’ (including in the USA<sup>38</sup>) and children within the illegal drugs trade. While a detailed discussion of this topic is outside the margins of this review, it is pertinent to recognise the significant level to which child victimhood and criminality (perceived or legally evidenced) is bound to our differing global and individual sociologies of childhood, expectations of children and conceptualisations around ‘childhood innocence’, ‘good children’, ‘bad children’ and ‘bad families’. Child criminalisation

can be painfully and tortuously tied to attitudes (overt or surreptitious) of racism, xenophobia, negative stereotyping and scapegoating of people groups from individual to state level. As health professionals of all disciplines, it is vital to prioritise and advocate for the health and well-being of children across all legal categories and processes. Children in the criminal justice system have often faced significant earlier life challenges and are especially likely to feel unsafe, with survival response behaviours and stress more readily triggered and potentially misunderstood.<sup>39</sup> Attuned health professionals can play a significant role in justice and rehabilitation.

### Self-identification as a victim and acceptance of help

When a potentially victimised child is detected, they may also struggle to identify as trafficked even when terminology is explained. Reasons may include a lack of insight into their exploitation; for example, a young person may be groomed to believe that selling sexual acts and giving money to their ‘boyfriend’ is acceptable in exchange for a relationship, or that missing school to earn fast money selling drugs is the glamorous lifestyle they desire.<sup>40</sup> Victims may also be unable or embarrassed to relate to the classic media portrayals of a victim (typically a young, helpless, ‘innocent-looking’ female being trafficked for sex). Immigration complications and a sense of personal blame regarding their situation may also significantly impact engagement with safe adults.<sup>21</sup>

Staff need to actively build trust with potential victims, exploring how their unique world view and experience may influence their health presentation and decisions. For example, a victim from a culture where a child is perceived to dishonour their parents by not providing for them financially, or accepting comfort while their family suffer, may determine to remain with traffickers in the hope of sending money home. A child who views the involvement of their parent(s) or romantic partner in the trafficking process as a kind action to help them escape poverty may be very distressed by the portrayal of these individuals as abuse perpetrators and criminals, particularly if the child believes they did not know the trafficking realities that lay ahead, or they do not perceive their situation as abusive.<sup>41</sup> Issues of honour and shame can be particularly connected to sexual abuse. For families or communities where extramarital or same-sex sexual activity is considered taboo (regardless of abusive context), the victim/survivor may be deemed punishable by ostracisation, abandonment, violence, denial of future marriage or even death.<sup>42</sup> Such complexities can lead to frustration or misunderstandings if children respond in unexpected ways to actions designed to help them. High numbers (27%) of potential trafficking victims go missing from care, particularly in the first 48 hours, many of whom are never found.<sup>43</sup> It is important to recognise that status as a victim or survivor of trafficking does not negate a child having capacity, opinions and agency. Children should be involved in decisions regarding their care whenever possible. Health disciplines and social care



### Box 1 Safeguarding children at risk

All patients suspected to be at risk of trafficking, modern slavery or abuse must be managed in line with your organisation's child safeguarding policy.

For further advice please contact the Modern Slavery Helpline (UK only):

UK MODERN SLAVERY HELPLINE: 08000 121 700

<https://www.modernslaveryhelpline.org/>

need to continue working together to provide strategic, individualised safeguarding responses.

#### Avoidance of stereotyping

Stereotyping of trafficking practices, victim and perpetrator demographics, presentation and characteristics have been profoundly harmful to victims. It is important that professionals are not blinkered by fixed mindsets or emotive ideas of the 'perfect victim' or the 'perfect rescue'. The background, presentation and needs of trafficked children are diverse. Abuse risks span the socioeconomic gradient and victims may be from affluent families, attending fee paying schools and recruited for their non-stereotypical appearance.<sup>44</sup> Children from loving, nurturing families can also be exploited, with perpetrators abusing the inherent vulnerability of the developing child and immature brain. Safeguarding and the development of patient trust should be promoted in all child health encounters.

#### ACTING ON CONCERNS

All children suspected of being trafficked or subjected to modern slavery or abuse (including children of potentially trafficked or exploited parents) must be managed in line with your organisation's child safeguarding policy. Details of additional support through the Modern Slavery Helpline (UK only) are available in [box 1](#).

#### HEALTH RISKS ASSOCIATED WITH CHILD TRAFFICKING

Trafficked children may be deprived of the basic provisions for healthy growth and development including adequate restorative sleep, exercise, balanced nutrition, clean water, clean air, appropriate clothing, shoes, basic hygiene, sanitary products, shelter, safety and crucially, healthy relational nurture.<sup>45 46</sup> Living conditions may be highly inappropriate with victims in prolonged physical and mental distress secondary to hunger, thirst, exhaustion, extremes of temperature and an atmosphere of unpredictable violence. Children will respond to such atmospheres in order to survive but will be unable to thrive.

#### Physical health

Health presentations will vary dependent on individual circumstances of abuse including whether the child remains in their family home, country of origin/prior

residence, journey risks, chronological and developmental age, abuse formats, level of psychological trauma and survival responses. The child may have developed mechanisms to mask distress or disengage, trained not to draw attention to their needs.<sup>47</sup> Astute healthcare providers may also recognise multiple children presenting with similar patterns of health need, skin markings or stories suggestive of local trafficking activity. Health presentations alone are not diagnostic of trafficking and may have origins unrelated to trafficking or abuse.

**Box 2** demonstrates key general indicators of potential MSHT. **Table 2** highlights potential MSHT health presentations by body system. Injuries are considered in **table 5**. All tables are designed to complement standard history taking, physical examination and consideration of health presentations common to all children.

#### Skin, Dental & Sensory Systems

Depending on the child's lived experiences of MSHT, reflections of chronic or underlying malnourishment and maltreatment may be evidenced on thorough examination of the child—the detection of one concerning feature prompting further assessment. The tattooing of children and women has been particularly prevalent within sexual exploitation. **Table 3** highlights potential indicators of MSHT in the skin, dental and sensory systems.

#### Sexual & Reproductive Health

The sexual abuse of children of all genders is known to occur within the settings of MSHT, when children are trafficked for the core purpose of sexual exploitation and

### Box 2 Potential indicators of child modern slavery and human trafficking—general (non-exhaustive)<sup>40 45 60–62</sup>

- ▶ Inappropriately dressed for age, time of day or weather. Unkempt appearance or presence of unusually expensive items.
- ▶ Unusual behaviour including marked wariness, agitation, aggression, belligerence, sexualised manner, fear, timidity or submission.
- ▶ May be with an accompanying person who appears controlling or who insists on speaking for the child. Accompanying individual may show particularly 'charming' behaviour to staff or appear very attentive to child.
- ▶ Healthcare attendance in association with police or social services response to social concern or criminal activity.
- ▶ Healthcare attendance related to alcohol, illegal substance or inappropriate medication use.
- ▶ Delayed presentation with advanced or severely complicated health needs that would have been readily resolved as minor issues if help provided at an early stage.
- ▶ Child appearing unusually tired, sallow or sleep deprived.
- ▶ Child homeless or unsure of home address, current location or contact numbers of responsible adults.
- ▶ Not registered with general practitioner or school.
- ▶ Child has no or limited local language skills.
- ▶ Child asking for help and safety (verbally or non-verbally).
- ▶ Carer requesting help due to child's behaviour deterioration, missing episodes, drug use.

**Table 2** Example potential indicators of child MSHT—body systems (non-exhaustive)

Presenting concern	Possible MSHT-related cause
<b>Neurological system</b> <sup>45 61 63 64</sup>	
Headaches, dizziness, confusion and/or memory problems	Head injury or systemic causes (ie, severe anaemia secondary to poor diet, environmental toxicity, ie, lead from poor accommodation or previous country of habitation).
Body or limb pain, abnormal body postures, movement or sensation.	Neurological damage secondary to repetitive or prolonged movements and positions.
<b>Cardiovascular system</b> <sup>65 66</sup>	
Chest pain, palpitations, shortness of breath, fainting, abnormally high or low blood pressure.	Children (particularly of international origin) may have never received a medical examination or standard vaccinations. Congenital and infectious causes of cardiac presentations should be considered. Chest wall pain may be triggered by injury.
Fever, flu-like symptoms, spots on palms or soles of feet, tiny broken blood vessel spots under nails, in the mouth, whites of the eyes or chest.	Infective endocarditis risks are further increased through injected illicit drug use and dirty drug paraphernalia.
Increased blood pressure, palpitations and/or cardiac arrest.	Illicit drug use may have cardiovascular consequences. Many drugs impact blood pressure including synthetic cannabinoids such as Spice/K2, amphetamines, methamphetamine, other stimulants and club drugs. Cocaine use increases the risk of cardiac arrest.
<b>Respiratory system</b> <sup>65 67</sup>	
Coughing, breathing difficulty, chest pain, fever	Children in MSHT may live in or be exposed to unsanitary living conditions and other vulnerable individuals. Risk of tuberculosis and other infective causes of respiratory symptoms should be considered. Underlying immune system weakness may be triggered by poor nutritional status, chronic stress or underlying dysfunction (consider HIV). Pretrafficking exposures to pathogens should also be considered.
Breathing difficulty, wheeze, collapse	Children with asthma may find their condition poorly controlled due to exposure to dust, smoke, pesticides or other irritants. Access to appropriate medication and health reviews may be limited.
<b>Gastrointestinal system</b> <sup>40 52</sup>	
Constipation, diarrhoea, abdominal pain— infective symptoms	Unsanitary living conditions and food supply may increase risk of gastroenteritis and parasitic infections.
Constipation, diarrhoea, abdominal pain—non- infective symptoms	May be caused by malnutrition, dehydration, stress and regulated toilet breaks. Children may also be forced to pack drugs into the anal canal, misusing constipating or laxative agents to facilitate this.
Collapse, systemically unwell	Children used as drug mules may be required to swallow or body-pack drugs (commonly cocaine or heroin) wrapped in condoms or plastic. Packet rupture can result in abrupt toxicity and overdose. Seizures, tachycardia, hypertension and hyperthermia may occur with cocaine toxicity. Coma and respiratory depression may occur with heroin. Intestinal obstruction, rupture and peritonitis are additional risks.
Anal pain and/or discharge	Anal injury or infection may be caused through sexual activity, assault and/or body packing of drugs. Irritable bowel syndrome exacerbated by stress may present with discharge.
<b>Urinary system</b> <sup>68 69</sup>	
Urinary incontinence, bed-wetting	Children under high-stress situations may be affected by urinary incontinence and bed-wetting. Restricted toilet use may be an additional factor.
Dysuria, urinary frequency, abdominal pain	Children may experience urinary infections or urogenital symptoms in the context of sexual abuse and/or poor sanitary conditions.

MSHT, modern slavery and human trafficking.

alongside all other MSHT formats. Child sexual abuse within MSHT may be violent, repetitive and without provision of contraception, disease protection or treatment. Sexual abuse carries profound risks to the mental, physical, emotional, behavioural and developmental health of children which may be lifelong (table 4).

### Violence, Torture & Degradation

Children may have experienced violence on a wide spectrum of severity and frequency. Violence may be at the

hands of sex buyers, work managers, gang members, traffickers, carers or others. Violence which may amount to state or non-state torture may also be perpetrated against children.<sup>48</sup>

Violence and degradation are used to subjugate victims and instil a sense of hopelessness, helplessness and fear. In complex cases (including ritual abuse), severe violence may be used to deliberately develop dissociative identity disorders.<sup>49</sup> Recognised severe abuse methods

**Table 3** Example potential indicators of MSHT—skin, dental and sensory systems (non-exhaustive)<sup>45 65 70–72</sup>

Presenting concern	Possible MSHT-related cause
Skin rash, skin damage, itching, weeping, discomfort.	Unsanitary conditions increase the risk of skin infection, infestation and exacerbation of pre-existing eczema or skin conditions. Stress may also aggravate skin. Contact dermatitis may occur with use of cleaning chemicals or pesticides without protective equipment.
Hair loss, hair texture change.	Secondary to stress, micronutrient deficiency or infection (including fungal).
Dental pain, tooth damage and loss.	Tooth and gum disease due to lack of dental hygiene and ability to provide dental self-care, dental infection, injury and/or dental decay secondary to illegal substance use (notably methamphetamine 'meth mouth', cocaine and heroin).
Vision and eye problems	May be caused by chronic and/or uncorrected eye conditions, secondary to environmental exposure to irritants or infection (ie, exposure to farm pesticides and animal stool without hygiene measures or protective equipment).
Hearing problems	May be chronic and uncorrected or secondary to unprotected noise exposure, infection or injury.

MSHT, modern slavery and human trafficking.

include the holding of children in dark, small cages to 'break their will' prior to sexual exploitation,<sup>50</sup> chaining and beating of children, painful stress positions and sexual torture. In cases where trafficking victim's physical appearance is important, torture forms that leave minimal physical markings may be employed. All forms of severe abuse and torture have profound psychological, developmental and health impacts on victims and specialist advice should be sought.<sup>48</sup> [table 5](#) highlights potential physical injury indicators of MSHT.

#### Addiction, Alcohol Dependency & Substance Misuse

Victims may have struggled with addiction prior to trafficking, begun using substances as a coping mechanism or have been forced to use alcohol or substances by traffickers to increase dependency and compliance.<sup>51</sup>

Children are exposed to significant physical, mental and developmental harm through substance abuse, improper use of prescription and contraceptive drugs, psychoactive herbal or traditional substances and forced internal carriage of illegal drugs (as indicated in [tables 3–5](#)).<sup>52</sup> Children may present intoxicated, high, withdrawing or in poisoning or overdose states.

#### Psychological Violence, Trauma & Mental Health

The negative health impact of severe psychological violence within the trafficking process and across the life course of a victimised child must not be underestimated. Children's brains, even in utero, adapt to an environment of danger around them, enhancing the protective pathways of the brain and body through release of stress hormones, enabling the 'fight, flight, freeze or submit' physiological

**Table 4** Example potential indicators of MSHT—sexual and reproductive health systems (non-exhaustive)<sup>45 68</sup>

Presenting concern	Possible MSHT-related cause
Genital skin changes, discharge, bleeding, discomfort or pain	Sexually transmitted infections (including chlamydia, gonorrhoea, herpes and syphilis), child may present late with symptoms.
Infertility, pregnancy symptoms, request for antenatal care.	Pregnancy may be intentional during MSHT exploitation (ie, benefit fraud, planned illegal adoption). Fertility problems may be secondary to sexually transmitted disease. Perpetrator may seek to override a female victim's wishes—her views must be sought and assumptions based on 'culture' should not be made.
Requests for emergency contraception or abortion.	Sexual exploitation, abuse, unplanned pregnancy.
Late presentation of pregnancy, lack of antenatal care.	Victim may have been prevented from accessing care for her and her unborn child. Immigration status issues and fear may be an added barrier to seeking maternity help.
Collapse, systemically unwell,	Body-packing into the vagina of wrapped drugs (especially cocaine and heroin) risks acute toxicity and overdose on rupture. Sexual exploitation and unprotected sex increases risks of blood-borne virus infections including HIV and hepatitis. Such infections may also be present pre-exploitation.

MSHT, modern slavery and human trafficking.

**Table 5** Example potential indicators of MSHT—physical injury and torture (non-exhaustive)

Presenting concern	Possible MSHT-related cause
Musculoskeletal pain, abnormal bone healing, abnormal posture or movement <sup>45 61</sup>	Secondary to enforced poor or prolonged posture, repetitive movements, manual labour with insufficient support or safety systems. Violent injury to limbs (includes deliberate amputations, i.e. as punishment for theft) Stress positions of torture.
Head injury, headaches, facial, ocular and/or hearing damage <sup>45 61 63 64</sup>	Secondary to accidental or non-accidental head injury including single or repetitive beating around the head.
Skin wounds, tattoos and scarring <sup>45 70 73 74</sup>	May be secondary to deliberate injury infliction that is, cigarette burns, whipping, ropes, skin markings in association with witchcraft or juju control rituals. Environmental skin injury secondary to unprotected chemical, temperature or sun exposure. Skin tattoos, gang-markings or 'slave branding' (may include images of money symbols, trafficker initials, 'daddy', hex symbols, sexualised words and placements). Pulling of nails or violent nail injury.
Genital, anal, internal and oral injury <sup>71 75</sup>	Damage to external and/or internal organs secondary to rape and sexual abuse, including with objects or forced plugging of cavities with drug packets. Violent or unsafe abortion. Female genital mutilation.
Dental injury <sup>71</sup>	Forced pulling of teeth or dental damage.
Direct eye injury <sup>65 72</sup>	Secondary to violent injury or deliberate rubbing of irritants into the eye.
Other sequelae of physical and psychological violence.	Physical and psychological violence including stabbing, burning, beating, drowning, hanging and mock executions which may lead to severe damage, disability or death. Children may be forced to harm or kill children, adults or animals and to watch the degradation, injury and assault of others. <sup>76</sup>

MSHT, modern slavery and human trafficking.

responses. For children experiencing severe, prolonged and compounded forms of violence (particularly in the absence of restorative relational support) the child's neurological pathways appropriately remain primed for danger

and self-preservation. The child's brain development moulds to the environment of threat, prioritising survival over all other higher functions, damaging learning, executive function, relational and communication skills.<sup>53</sup>

**Table 6** Potential indicators of child MSHT—mental health (non-exhaustive)<sup>40 70 77</sup>

Presenting concern	Possible MSHT-related cause
<b>Mental health</b> Headaches, back pain, generalised abdominal or body pain, seizure-like events.	Psychosomatic expressions of fear, stress or trauma. Psychogenic nonepileptic seizures in the context of abuse.
Alcohol or substance use, dependency or overdose.	Coping strategies during MSHT and/or deliberate cultivation of addiction by perpetrators to enhance dependency and control. Pretrafficking addictions may have been exploited.
Self-harm, suicidal thoughts or suicide attempt.	Coping strategies and actions of a child experiencing severe stress, fear, hopelessness, shame and/or trauma responses. May be exacerbated by alcohol or substance abuse and sleep deprivation.
Fatigue or exhaustion.	Deliberate sleep deprivation and overwork, poor sleeping conditions, hunger and difficulty sleeping secondary to stress and fear responses (including nightmares) and/or infestation and bites.
Chest pain, palpitations, breathing difficulties, dizziness, sense of choking, weight loss.	Anxiety and panic attacks secondary to high-stress situation.
Low mood, hopelessness, lack of energy, self-harm and/or suicidality.	Depression secondary to MSHT situation (may have pretrafficking roots).
Day-dreaming, 'zoning-out', behavioural regression, different presenting personalities, reporting or appearing to respond to internal voices.	Dissociation as an aspect of trauma response.
Flashbacks, anxiety, avoidance of certain people or places or re-enacting traumatic events in play.	Potential post-traumatic stress disorder, in conjunction with other mental health symptoms.

MSHT, modern slavery and human trafficking.



Psychological violence is experienced and expressed in the physical body. The Adverse Childhood Experiences studies have evidenced clear links between childhood abuse and poor adult physical, mental and relational health. Chronic stress hormone pathway dysregulation leads to cellular damage and epigenetic adaptations, increasing the relative risk of a host of diseases including cancer, respiratory disease, liver, cardiac and immune system dysfunction.<sup>54</sup> Risks are compounded by increased neurological drive for substances or activities that stimulate the reward and pleasure region of the brain including alcohol, drug, carbohydrate or behavioural addictions with their associated health harms. Psychological responses to belittlement, degradation, loss of agency and rejection include powerful, consuming feelings of shame, guilt and worthlessness. Such responses hold some protective value in keeping the victim withdrawn, hidden, compliant and dependent yet are catastrophic for healthy development and psychological internal working models from which to understand the world, others, relationships and self.<sup>53</sup> Victims may experience significant fear and guilt regarding the perceived placing of family members or friends in danger, with traffickers frequently using the threat or practice of violence against a victim's loved ones, particularly their children, to enforce control.<sup>55</sup>

Mental health disorders and trauma symptoms are frequently detected in child trafficking survivors and include post-traumatic stress disorder (often complex), severe affective disorders (including anxiety, depression, bipolar disorder), severe stress and adjustment disorders.<sup>40</sup> Symptoms may be highly intrusive and be associated with other health risks including sleep disorders, nightmares, flashbacks, collapse, trauma-memory-associated body pain (with or without conscious memory of abuse), dissociation, palpitations and breathing difficulties (table 6).

### Supporting parenting & moving forward with experiences of MSHT

The physical, psychological and mental health consequences of child trafficking form a challenging landscape for healthcare providers, potentially leading to long-term impacts on healthy development. A small but growing body of survivor stories and research is evidencing the impact of childhood trauma on parenting. While parental mental ill health or trauma survivorship should never be assumed to lead to detrimental parenting, there is the potential for impact on the next generation when parents remain with high distress, unmet needs and inadequate professional encouragement and support.<sup>56</sup> Investment in the health, well-being and trauma recovery (not only symptom management) of trafficked children and parents is paramount.

Child trafficking victims demonstrate remarkable strength, tenacity, endurance and survivorship during their exploitation, the developmental trajectories of their brain responding to their environment. To recover, heal

and move forward from abuse, children must first be supported into circumstances of physical, psychological and genuine relational safety, love and acceptance. From a basis of felt security, the function of physiological stress pathways can be stabilised and the child (or then adult) can access higher thought functions and work therapeutically to address, manage and heal deep psychological responses to trauma.<sup>57</sup> Some survivors demonstrate remarkable post-traumatic growth and go on to thrive, others live with severely limiting psychological and health sequelae.

### CONCLUSION

Child trafficking is an aggressive form of violence against children and a growing global public health problem. Healthcare providers play a crucial role in combating modern slavery and trafficking by advocating for healthy, nurturing childhoods (vulnerability reduction), recognition of child victims when they present to healthcare and the provision of trauma-informed, survivor-informed, timely healthcare and safeguarding responses. The health impacts of child modern slavery and trafficking are numerous and compounding, particularly severe due to the impact of psychological and physical violence on the developing brain and body. There is a critical need for further education, advocacy, research and health expertise regarding child pretrafficking vulnerabilities, victim recognition, effective interventions and recovery pathways. The pathways from early childhood to perpetration of trafficking and exploitation also require urgent research.

**Twitter** Laura C N Wood @DrLauraCN

**Acknowledgements** The author wishes to thank Jordan Greenbaum and Sarah Boutros for their support in manuscript development.

**Funding** This study was funded by Economic and Social Research Council 1+3 PhD Studentship.

**Competing interests** LCNW is the Child and Family Modern Slavery Lead for VITA, an organisation seeking to advance the public health response to modern slavery.

**Patient consent for publication** Not required.

**Provenance and peer review** Commissioned; externally peer reviewed.

**Data availability statement** No data are available.

**Open access** This is an open access article distributed in accordance with the Creative Commons Attribution Non Commercial (CC BY-NC 4.0) license, which permits others to distribute, remix, adapt, build upon this work non-commercially, and license their derivative works on different terms, provided the original work is properly cited, appropriate credit is given, any changes made indicated, and the use is non-commercial. See: <http://creativecommons.org/licenses/by-nc/4.0/>.

### ORCID iD

Laura C N Wood <http://orcid.org/0000-0001-8947-2677>

### REFERENCES

- 1 Modern slavery act., 2015. Available: <http://www.legislation.gov.uk/ukpga/2015/30/contents/enacted>
- 2 World Health Organisation. Violence against children. violence against children (fact sheet), 2019. Available: <https://www.who.int/news-room/fact-sheets/detail/violence-against-children> [Accessed 11 Feb 2020].

- 3 United Nations. General assembly, protocol to prevent, suppress and Punish trafficking in persons especially women and children, supplementing the United Nations convention against transnational organized crime 2000.
- 4 Brayley H, Cockbain E. British children can be trafficked too: towards an inclusive definition of internal child sex trafficking. *Child Abuse Rev* 2014;23:171–84.
- 5 Tiefenbrun S. Child soldiers, slavery, and the trafficking of children TJSL legal studies research paper No. 1020341, 2007. Available: [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1020341](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1020341) [Accessed 6 Dec 2019].
- 6 Shaheen S, Awan MS, Waqas M, et al. Factors responsible for child trafficking for camel racing in Pakistan. *World Appl Sci J* 2013;25:1007–11.
- 7 Adeyemi Henry Agbeko Kaign Christy Philip Langford Participatory Development Associates A. Baseline study of child trafficking into forced labor on lake Volta, Ghana study team: IJM operational assessment team qualitative Methodologist and data analyst: Julie Stricker operational assessment data analyst: Katrina B. stone.
- 8 Fleck F. Children are main victims of trafficking in Africa. *BMJ* 2004;328:1036.
- 9 Chatterjee P. Human trafficking and Commercialization of surrogacy in India. *Eur Res* 2014;85:1835–42.
- 10 David F, Bryant K, Joudo Larsen J. Migrants and their vulnerability to human trafficking, modern slavery and forced labour.
- 11 BBC News. Family-run trafficking gang jailed for slavery offences. Available: <https://www.bbc.co.uk/news/uk-england-leeds-45750663> [Accessed 6 Dec 2019].
- 12 Minderoo Foundation, Walk Free. Global slavery index 2018, 2018. Available: [https://downloads.globalslaveryindex.org/ephemeral/GSI-2018\\_FNL\\_190828\\_CO\\_DIGITAL\\_P-1575980360.pdf](https://downloads.globalslaveryindex.org/ephemeral/GSI-2018_FNL_190828_CO_DIGITAL_P-1575980360.pdf) [Accessed 10 Dec 2019].
- 13 Australian Institute of Criminology. Help-Seeking strategies of victim/survivors of human trafficking involving partner migration. Available: <https://aic.gov.au/publications/tandi/tandi468> [Accessed 6 Dec 2019].
- 14 Proposal for a revised national referral mechanism (NRM) for adults 2014.
- 15 UNODC. United nations global report on trafficking in persons 2018 United nations office on drugs and crime Vienna, 2018. Available: [https://www.unodc.org/documents/data-and-analysis/glotip/2018/GLOTIP\\_2018\\_BOOK\\_web\\_embargoed.pdf](https://www.unodc.org/documents/data-and-analysis/glotip/2018/GLOTIP_2018_BOOK_web_embargoed.pdf) [Accessed 5 Mar 2019].
- 16 Setter C, Baker C. Child trafficking in the UK 2018: a snapshot, 2018. Available: <https://www.ecpat.org.uk/Handlers/Download.ashx?IDMF=62f9b4d8-ad67-47f0-8abb-d25380c2c4dc> [Accessed 5 Mar 2019].
- 17 Office H. National referral mechanism statistics quarter 3 2019.
- 18 Chisolm-Straker M, Baldwin S, Gaigbé-Togbé B, et al. Health care and human trafficking: we are seeing the unseen. *J Health Care Poor Underserved* 2016;27:1220–33.
- 19 Ross C, Dimitrova S, Howard LM, et al. Human trafficking and health: a cross-sectional survey of NHS professionals' contact with victims of human trafficking. *BMJ Open* 2015;5:e008682.
- 20 Identification of human trafficking victims in health care setting – health and human rights Journal. Available: <https://www.hhrjournal.org/2013/08/identification-of-human-trafficking-victims-in-health-care-setting/> [Accessed 6 Dec 2019].
- 21 Gearon A. Child Trafficking: Young People's Experiences of Front-Line Services in England. *Br J Criminol* 2019;59:481–500.
- 22 General Assembly. Protocol to prevent, suppress and Punish trafficking 0951-6328 2000.
- 23 An introduction to human trafficking: vulnerability, impact and action. Available: [www.ungift.org](http://www.ungift.org) [Accessed 6 Dec 2019].
- 24 Cooper K, Stewart K. Kerris Cooper Kitty Stewart Does Money Affect Children's Outcomes? An update CASEpaper 203 Does Money Affect Children's Outcomes? An update.
- 25 McGregor Perry K, McEwing L. How do social determinants affect human trafficking in Southeast Asia, and what can we do about it? A systematic review, 2013. Available: <http://handbook.cochrane.org> [Accessed 6 Dec 2019].
- 26 Craig G. *Child Slavery Now: A Contemporary Reader*. Bristol University Press, Policy Press, 2010. <https://www.jstor.org/stable/j.ctt9qgxm>
- 27 O'Connell Davidson J. Troubling freedom: migration, debt, and modern slavery. *Migr Stud* 2013;1:176–95.
- 28 The Human Trafficking Pro Bono Legal Center and The Freedom Fund. Ending IMPUNITY, securing justice: using strategic litigation to combat modern-day slavery and human trafficking, 2015. Available: <https://freedomfund.org/wp-content/uploads/STRATEGIC-LITIGATION-FINAL-FOR-EMAIL.pdf> [Accessed 6 Dec 2019].
- 29 Td Kelly J, Branham L, Decker MR. Abducted children and youth in Lord's Resistance Army in Northeastern Democratic Republic of the Congo (DRC): mechanisms of indoctrination and control 2016.
- 30 Greenbaum J, Bodrick N, et al, COMMITTEE ON CHILD ABUSE AND NEGLECT. Global human trafficking and child victimization. *Pediatrics* 2017;140:20173138.
- 31 Schimmenti A. Unveiling the hidden self: developmental trauma and pathological shame. *Psychodynamic Practice* 2012;18:195–211.
- 32 Popova S, Lange S, Shield K, et al. Prevalence of fetal alcohol spectrum disorder among special subpopulations: a systematic review and meta-analysis. *Addiction* 2019;114:1150–72.
- 33 NICE. Fetal alcohol spectrum disorder (FASD) | evidence search. Available: <https://www.evidence.nhs.uk/search?q=Fetal+Alcohol+Spectrum+Disorder+%28FASD%29> [Accessed 6 Dec 2019].
- 34 Winters GM, Jeglic EL. Stages of sexual grooming: recognizing potentially predatory behaviors of child molesters. *Deviant Behav* 2017;38:724–33.
- 35 Doychak K, Raghavan C. "No voice or vote:" trauma-coerced attachment in victims of sex trafficking. *J Hum Traff* 2018;13:1–19.
- 36 Youth Justice Legal Centre. Child Criminal Exploitation: County Lines Gangs, *Child Trafficking & Modern Slavery Defences for Children*., 2018. Available: <https://yljc.uk/wp-content/uploads/2018/02/Modern-Slavery-Guide-2018.pdf>
- 37 United Nations Security Council Counter-Terrorism Committee Executive Directorate. Identifying and exploring the nexus between human trafficking, terrorism, and terrorism financing, 2019. Available: <https://www.un.org/sc/ctc/wp-content/uploads/2019/02/HT-terrorism-nexus-CTED-report.pdf> [Accessed 9 Dec 2019].
- 38 United States Department of Justice. Child sex trafficking, 2017. Available: <https://www.justice.gov/criminal-ceos/child-sex-trafficking>
- 39 Fox BH, Perez N, Cass E, et al. Trauma changes everything: examining the relationship between adverse childhood experiences and serious, violent and chronic juvenile offenders. *Child Abuse Negl* 2015;46:163–73.
- 40 Greenbaum J, Crawford-Jakubiak JE, Committee on Child Abuse and Neglect. Child sex trafficking and commercial sexual exploitation: health care needs of victims. *Pediatrics* 2015;135:566–74.
- 41 Gozdzak EM. *Trafficked children and youth in the United States. Reimagining survivors*. Rutgers University Press, 2016.
- 42 Dahal P, Joshi SK, Swahnberg K. 'We are looked down upon and rejected socially': a qualitative study on the experiences of trafficking survivors in Nepal. *Glob Health Action* 2015;8:29267.
- 43 Still in Harm's Way An Update Report on Trafficked and Unaccompanied Children Going Missing from Care in the UK. Available: <https://www.ecpat.org.uk/heading-back-to-harm-a-study-on-trafficked-> [Accessed 6 Dec 2019].
- 44 Ofsted. Protecting children from criminal exploitation, human trafficking and modern slavery: addendum, 2018. Available: [www.gov.uk/government/publications/joint-inspections-of-child-sexual-exploitation-and-](http://www.gov.uk/government/publications/joint-inspections-of-child-sexual-exploitation-and-) [Accessed 6 Dec 2019].
- 45 Stanley N, Oram S, Jakobowitz S, et al. The health needs and healthcare experiences of young people trafficked into the UK. *Child Abuse Negl* 2016;59:100–10.
- 46 Zimmerman C, Hossain M, Watts C. Human trafficking and health: a conceptual model to inform policy, intervention and research. *Soc Sci Med* 2011;73:327–35.
- 47 Lyons S, Whyte K, Stephens R, et al. Developmental trauma close up. Available: <http://beaconhouse.org.uk/useful-resources/> [Accessed 6 Dec 2019].
- 48 OSCE Office of the Special Representative and Co-ordinator for Combating Trafficking in Human Beings. Trafficking in human beings Amounting to torture and other forms of Ill-Treatment organization for security and co-operation in Europe, 2013. Available: <https://www.osce.org/cthb/103085?download=true> [Accessed 6 Dec 2019].
- 49 Schröder J, Nick S, Richter-Appelt H, et al. Psychiatric impact of organized and ritual child sexual abuse: cross-sectional findings from individuals who report being Victimized. *Int J Environ Res Public Health* 2018;15:1–3.
- 50 Sarkar S. Rethinking human trafficking in India: nature, extent and identification of survivors. *Round Table* 2014;103:483–95.
- 51 Shelley L. The relationship of drug and human trafficking: a global perspective. *Eur J Crim Policy Res* 2012;18:241–53.
- 52 Traub SJ, Kohn GL, Hoffman RS, et al. Pediatric "body packing". *Arch Pediatr Adolesc Med* 2003;157:174–7.
- 53 Van Der Kolk BA. Developmental trauma disorder. *Psychiatr Ann* 2005;35:401–8.
- 54 Hughes K, Bellis MA, Hardcastle KA, et al. The effect of multiple adverse childhood experiences on health: a systematic review and meta-analysis. *Lancet Public Heal* 2017;2:e356–66.

- 55 Ioannou M, Oostinga MSD. An empirical framework of control methods of victims of human trafficking for sexual exploitation. *Glob Crime* 2015;16:34–49.
- 56 Brandt J, Daum D. Parenting with PTSD: the impact of childhood abuse on parenting. CreateSpace independent publishing platform 2017.
- 57 Perry BD. Examining child maltreatment through a neurodevelopmental lens: clinical applications of the Neurosequential model of therapeutics. *J Loss Trauma* 2009;14:240–55.
- 58 Cooper C, Hesketh O, Ellis N, *et al.* A typology of modern slavery offences in the UK, 2017. Available: <https://www.antislaverycommissioner.co.uk/media/1190/a-typology-of-modern-slavery-offences.pdf> [Accessed 6 Dec 2019].
- 59 Child employment - GOV.UK. Available: <https://www.gov.uk/child-employment> [Accessed 1 Mar 2020].
- 60 Oram S, Stöckl H, Busza J, *et al.* Prevalence and risk of violence and the physical, mental, and sexual health problems associated with human trafficking: systematic review. *PLoS Med* 2012;9:e1001224.
- 61 Zimmerman C, Hossain M, Yun K, *et al.* The health of trafficked women: a survey of women entering posttrafficking services in Europe. *Am J Public Health* 2008;98:55–9.
- 62 Pezzi C, Lee D, Kennedy L, *et al.* Blood lead levels among resettled refugee children in select us states, 2010–2014. *Pediatrics* 2019;143:e20182591.
- 63 Luoni C, Agosti M, Crugnola S, *et al.* Psychopathology, dissociation and somatic symptoms in adolescents who were exposed to traumatic experiences. *Front Psychol* 2018;9:2390.
- 64 Chessell ZJ, Brady F, Akbar S, *et al.* A protocol for managing dissociative symptoms in refugee populations. *Cogn Behav Ther* 2019.
- 65 Oram S, Ostrovski NV, Gorceag VI, *et al.* Physical health symptoms reported by trafficked women receiving post-trafficking support in Moldova: prevalence, severity and associated factors. *BMC Womens Health* 2012;12:20.
- 66 Ramsawh HJ, Chavira DA, Stein MB. Burden of anxiety disorders in pediatric medical settings: prevalence, phenomenology, and a research agenda. *Arch Pediatr Adolesc Med* 2010;164:965–72.
- 67 Baauw A, Kist-van Holthe J, Slattery B, *et al.* Health needs of refugee children identified on arrival in reception countries: a systematic review and meta-analysis. *BMJ Paediatr Open* 2019;3:e000516.
- 68 Anderson B, Thimmesch I, Aardsma N, *et al.* The prevalence of abnormal genital findings, vulvovaginitis, enuresis and encopresis in children who present with allegations of sexual abuse. *J Pediatr Urol* 2014;10:1216–21.
- 69 Deshpande NA, Nour NM. Sex trafficking of women and girls. *Rev Obstet Gynecol* 2013;6:e22–7 <http://www.ncbi.nlm.nih.gov/pubmed/23687554>
- 70 Kiss L, Pocock NS, Naisanguansri V, *et al.* Health of men, women, and children in post-trafficking services in Cambodia, Thailand, and Vietnam: an observational cross-sectional study. *Lancet Glob Health* 2015;3:e154–61.
- 71 Fisher-Owens SA, Lukefahr JL, Rao Tate A. Oral and dental aspects of child abuse and neglect. Available: [www.aappublications.org/news](http://www.aappublications.org/news) [Accessed 9 Dec 2019].
- 72 Christian CW, Levin A V. The eye examination in the evaluation of child abuse. Available: [www.aappublications.org/news](http://www.aappublications.org/news) [Accessed 9 Dec 2019].
- 73 Fang S, Coverdale J, Nguyen P, *et al.* Tattoo recognition in screening for victims of human trafficking. *J Nerv Ment Dis* 2018;206:824–7.
- 74 Dunkerley AW. Exploring the use of juju in Nigerian human trafficking networks: considerations for criminal Investigators. *Police Pract Res* 2018;19:83–100.
- 75 Sommers MS, Sawyer Sommers M. Defining patterns of genital injury from sexual assault: a review. *Trauma Violence Abuse* 2007;8:270–80.
- 76 Tiefenbrun S. Child Soldiers, Slavery and the Trafficking of Children, 2007. Available: <http://ir.lawnet.fordham.edu/ilj> [Accessed 4 Mar 2020].
- 77 Ottisova L, Smith P, Shetty H, *et al.* Psychological consequences of child trafficking: an historical cohort study of trafficked children in contact with secondary mental health services. *PLoS One* 2018;13:e0192321.