# **Domestic Violence, Abuse, and Neglect**

# Samantha Schilling and Adam Zolotor

#### Introduction

The Centers for Disease Control and Prevention defines intimate partner violence (IPV) as "physical violence, sexual violence, stalking, and psychological aggression (including coercive tactics) by a current or former intimate partner (i.e., spouse, boyfriend/girlfriend, dating partner, or ongoing sexual partner)" [1]. Specifically, physical violence is defined as the intentional use of physical force with the potential for causing death, disability, injury, or harm and includes scratching, pushing, shoving, throwing, grabbing, biting, choking, shaking, hair-pulling, slapping, punching, hitting, burning, use of a weapon (gun, knife, or other object), and use of restraints or one's body, size, or strength against another person. Sexual violence is defined as a sexual act that is committed or attempted by another person without freely given consent of the victim or against someone who is unable to consent or refuse. Stalking is a pattern of repeated, unwanted attention and contact that causes fear or concern for one's own safety or the safety of someone else (e.g., family member, close friend), and psychological aggression is the use of verbal and non-verbal communication with the intent to harm another person mentally or emotionally, and/ or exert control over another person [1].

Over the course of a lifetime, more than one in three women and more than one in four men in the US experience rape, physical violence, and/or stalking by an intimate partner [2]. Approximately one third of homicides of women are committed by intimate partners [3]. Because victims of IPV tend to have high rates of physical and mental health morbidity, they are frequent users of the health care system. IPV is

S. Schilling

e-mail: samantha\_schilling@med.unc.edu

A. Zolotor (⊠)

Chapel Hill, Chapel Hill, NC, USA

e-mail: Adam\_Zolotor@med.unc.edu

Department of Pediatrics, University of North Carolina at Chapel Hill, Chapel Hill, NC, USA

Department of Family Medicine, University of North Carolina at

provides its own definitions of maltreatment within civil and criminal statutes. Each year in the US, Child Protective Service (CPS) agencies receive more than three million reports of suspected child maltreatment and investigate more than two million of these reports; more than 650,000 children are substantiated by child welfare as maltreatment victims [5]. Most maltreated children are victims of neglect (78.5%), 17.6% are victims of physical abuse, and 9.1% are victims of sexual abuse. More than 1500 child deaths are

attributed annually to child abuse or neglect.

thus a condition that physicians and other providers can

enacted in 1974, which defines child maltreatment as "any

recent act or failure to act on the part of a parent or caretaker,

which results in death, serious physical or emotional harm,

sexual abuse or exploitation, or an act or failure to act which

presents an imminent risk of serious harm" [4]. While fed-

eral legislation sets minimum standards for states, each state

The Child Abuse Prevention and Treatment Act was

expect to encounter frequently in their care settings.

A substantial body of research indicates that child maltreatment and IPV are public health problems with lifelong health consequences for survivors [6]. A landmark project, the Adverse Childhood Experience study, demonstrated a gradient risk among adults for both health risk behaviors and chronic diseases based on the number of childhood adversities and trauma experienced. For example, those with greater adversity had 4-12 times greater risk, compared to those with less adversity, for alcoholism, drug abuse, and suicide attempt. Similarly, those with greater adversity had higher rates of cancer, heart disease, lung disease, and liver disease compared to those with less adversity [7]. Not all childhood adversities are traumatic events. For example, living with a household member with mental illness may be stressful but not-traumatic. The Centers for Disease Control and Prevention defines trauma as "an event or series of events that causes a moderate or severe stress reaction ... characterized by a sense of horror, helplessness, serious injury, or threat of serious injury or death" [8]. People who experience or witness traumatic events may have stress reactions. Most stress reactions resolve in a short period of time, but some people develop post-traumatic stress disorder. Many victims or child maltreatment and IPV will have post-traumatic stress reactions and post-traumatic stress disorder.

At the other end of the life course is elder mistreatment. An expert panel convened by the National Academy of Sciences defines elder maltreatment broadly as the intentional actions that cause harm or create a serious risk of harm (whether or not harm is intended), to a vulnerable elder by a caregiver or other person who stands in a trusted relationship to the elder, or failure by a caregiver to satisfy the elder's basic needs or to protect the elder from harm [9]. Multiple types of elder maltreatment exist, including physical abuse, psychological abuse, sexual assault, neglect, and financial exploitation. Estimates of elder abuse vary between 2% and 10%. In a probability sample of elderly people living in Boston, the overall abuse rate was 3.2% [10]. The extent of elder abuse is sufficiently large that physicians who care for elderly adults are likely to encounter it routinely.

Physicians and other care providers play a key role is identifying and treating maltreatment and family violence, as well as understanding physical and mental health problems in their patients in the context of challenging life events, such as chronic illness. This chapter will first provide general guidelines for clinicians who may encounter IPV, child maltreatment, and elder mistreatment. The next section will outline evaluation approaches for patients who may present for medical care, and will be followed by management strategies. The chapter will close with future trends in this important area.

# **General Guidelines**

Because maltreatment and family violence are widely prevalent, all health care providers will encounter patients who have experienced this trauma. Furthermore, although there are subspecialists with expertise in the evaluation and management of child maltreatment and family violence, the vast majority of identification and treatment occurs by primary care clinicians. The identification of abuse can be difficult for many reasons; abuse is rarely witnessed, disclosure by the perpetrator is uncommon, and victims are often nonverbal, too severely injured, or too frightened to disclose. Furthermore, injuries may be non-specific in the case of physical abuse or absent in the case of sexual abuse.

#### **Intimate Partner Violence (IPV)**

Assessing for IPV in the clinical setting can be universal or selective, based on presentation or risk factors. The United States Preventive Services Task Force (USPSTF) recommends screening all women of childbearing age and refer-

ring those who screen positive for intervention services [11]. This recommendation is based on evidence that IPV can be accurately detected using currently available screening instruments, that effective interventions can mitigate the adverse health outcomes of IPV, and that screening causes minimal harm [11].

Physicians and other providers should be aware of the clusters of symptoms that are common in victims of IPV. When patients present with signs and symptoms suggestive of IPV (e.g., frequent somatic complaints, unexplained injuries, injuries to the face or trunk, frequent mental health complaints), clinicians should inquire about IPV, not only because intervention may be beneficial, but also because knowledge of IPV may inform the treatment plan or help the clinician understand barriers to treatment. A physician perception of poor adherence to medical recommendations may in fact be associated with the abuse a patient is experiencing, since impeding access to health care may be part of the control that abusers exert in their partners' lives [12]. Physicians who diagnose IPV, and therefore begin to understand the barriers that their abused patients face, may be able to develop more effective therapeutic relationships. Identifying IPV also provides an important opportunity for providing the patient with empathic support; educating them regarding the dynamics of IPV and the future risks it poses to the patient and their children.

Several questionnaires for assessing for IPV have been validated in a variety of settings and are practical in primary care, such as HITS, Woman Abuse Screening Tool (WAST), the Ongoing Violence Assessment Tool (OVAT), and the Partner Violence Screen [13]. Whether a clinician uses a structured instrument or simply asks questions informally in the context of a patient interview, several principles are important to follow. Physicians should ensure a private setting, without friends or family members present. They should assure patients of confidentiality, but notify them of any reporting requirements. It is often helpful to preface questions about IPV with normalizing statements, for example, "Because violence is a common problem, I routinely ask my patients about it," or "Many people with [condition] have worse symptoms if they have been physically, emotionally, or sexually abused in the past."

#### **Child Abuse**

Existing instruments designed to screen for social determinants of health often inquire about parental concern for child abuse [14]. Asking a caregiver about abuse is important and underscores the centrality of these problems to child health. A negative response, however, should not preclude an evaluation for abuse if other concerns are identified. Indeed, the best available screen for child abuse at this time remains a high index of suspicion and a thorough physical examination.

Although the maltreatment of children has been recognized for decades, there are ongoing challenges in identifying and ensuring the health and safety of abused and neglected children. There is abundant evidence that physicians often miss opportunities for early intervention of injuries that are concerning for physical abuse [15–17]. Sentinel injuries are minor injuries such as bruises or intraoral injuries that are noted before more severe injuries lead to a diagnosis of child abuse. Such injuries are often identified by physicians, but are incorrectly attributed to accidental trauma or not reported to CPS for investigation despite physician suspicion for abuse [15, 16, 18].

There is considerable variability in the diagnostic evaluation for physical abuse. All children younger than two years of age in whom physical abuse is suspected, for example, require a skeletal survey, the standard tool for detecting occult fractures [19]. However, race and socioeconomic status appear to influence a physician's decision to obtain skeletal surveys when children younger than two years present with skeletal trauma or traumatic brain injury, leading to both the over-reporting and under-reporting of abuse in different populations [20–22].

Variability has also been observed in performing recommended testing for sexually transmitted infections (STIs) and pregnancy, and administering recommended prophylaxis and emergency contraception when adolescents present to pediatric emergency departments following acute sexual abuse [23]. Studies have also shown that many physicians have not been properly trained in anogenital examination of children [24, 25].

Although neglect is by far the most widespread form of child maltreatment and results in significant morbidity and mortality, the focus of public and professional attention is largely on physical and sexual abuse. A greater and ongoing challenge is that neglect is difficult to define. For instance, although a health care provider might view repeated nonadherence to medications as neglect, this may not meet a state's CPS statute for neglect unless harm has resulted from this inaction. Neglect can involve failure to supervise a child resulting in harm or increasing risk of harm. Neglect can also involve failure to provide food, housing, education, medical care, or an emotionally supportive environment. In some states, child neglect statues exclude failure to provide when that failure is due to poverty or inadequate resources. In other states, these statutes are not related to intent, but only to the needs of the child.

#### **Toxic Stress, Child Maltreatment, and IPV**

The lifetime consequences of early trauma are substantial and enduring. Researchers have found that most causes of morbidity and mortality, including obesity, heart disease, alcoholism, and drug use, are directly associated with child maltreatment and childhood exposure to IPV [7, 26, 27]. Children need an environment in which a responsive, attentive caregiver meets their basic needs, including nurturance, love, and protection for normal growth and development. In this fundamental caregiver—child relationship, the child also depends on the caregiver to mediate and buffer life's stressors [27]. When stressors are overwhelming, or when caregivers are unable to help children buffer them, significant adversities can challenge the normal development of healthy coping mechanisms, learning, emotional health, and physical health [26, 27].

Stress that is unbuffered and overwhelming leads to potentially maladaptive neuroendocrine changes that impede a child's capacity to protect themselves from threats that are experienced and perceived in their world. When a child faces profound and chronic adversity such as abuse, neglect, and household IPV, significant biologic changes can occur. Excessive activation of the physiologic stress response system can lead to changes to: hypothalamic-pituitary-adrenal gland axis activation; epigenetic gene translation; altered immune response; and impaired neurodevelopment involving brain structures responsible for cognition, rational thought, emotional regulation, activity level, attention, impulse control, and executive function [27]. These biological processes manifest in specific behavioral, learning, and health problems which are seen in many children who have been maltreated or exposed to IPV. Adverse childhood experiences are closely link conceptually and empirically with toxic stress [28].

In the health care setting, physicians and other providers may address some of the changes in bodily function associated with trauma's influence on the brain. Sleep problems may include difficulty initiating or maintaining sleep, or experiencing nightmares. Children who have experienced trauma may demonstrate rapid eating, lack of satiety, food hoarding, or loss of appetite. Toileting problems include constipation, encopresis, enuresis, and regression of toileting skills [29]. Neuroendocrine changes can impact the immune and inflammatory response. In addition, an increased risk of infection and rates of asthma and allergy, and an increased risk of metabolic syndrome can all be linked to trauma [30, 31].

There has been increasing interest in screening for adverse childhood experiences since screening identifies a large percentage of children who experience one or more adversities [32]. What remains less clear is the right type of intervention to ameliorate the impact of these adversities. Some experts have, for example, advocated for focusing on prevention rather than screening for adversities that have already occurred. Another approach is to screen for unmet social care needs or social determinants of health, such as transportation challenges, food or housing insecurity, or barriers to

medical care [33]. Increasingly, health care systems, providers, and insurers seek to find ways to help people get services to address these unmet needs as a path to improved outcomes and lower costs. Social determinants of health are a concept closely aligned with adverse childhood experiences, and typically include experiences of violence. It is important that screening for adverse events or social determinants be undertaken only when there are evidence-informed interventions available to the family [34, 35].

#### **Elder Mistreatment**

There are no validated instruments for the screening or evaluation of elder mistreatment. Clues about potential mistreatment frequently come from ancillary staff members or home care nurses who observe the abuser–victim dyad away from the health care provider [36]. A general sense that something is concerning in the patient's environment such as an abrasive interaction between the elder and the caregiver, poor hygiene, frequently missed medical appointments, or failure to adhere with a clearly designated treatment strategy can all be important indicators.

There are no diagnostic signs or symptoms of elder abuse and clinicians need to consider elder mistreatment in the differential of many clinical presentations they encounter. Significant injuries and severe neglect are obvious, but many prevalent chronic diseases that afflict the elderly also have clinical manifestations of abuse and vice versa. For instance, fractures may result from osteoporosis or physical abuse. Malnutrition may be the result of progressive malignancy or the withholding of nourishment. Most often, chronic disease and elder abuse co-occur making the identification of elder mistreatment one of the most difficult clinical challenges in geriatric medicine.

#### **Patient Evaluation**

# **Suspected IPV**

When IPV is detected in the clinical setting, clinicians should respond in a way that builds trust and sets the stage for an ongoing therapeutic relationship. Key components of an initial interaction should include validation of the patient's concerns, education regarding the dynamics and consequences of IPV, safety assessment, and referral to local resources. A growing body of evidence suggests that a variety of counseling and advocacy interventions are effective at reducing violence and mitigating its negative health effects [37]. IPV is usually a chronic problem that will not be mitigated in one or two visits, but rather addressed overtime [38].

An initial response to a disclosure of IPV should include listening to the patient empathically and non-judgmentally, expressing concern for their health and safety, and affirming a commitment to help them address the problem. Victims of abuse may believe that the abuse is their fault. Health care providers can help counter this belief, reassuring patients that although partner violence is common, it is unacceptable and not the fault of the victim. Clinicians should also convey respect for IPV victims' choices regarding how to respond to the violence. Victims of IPV may have a clearer understanding than their health care providers about what courses of action may result in increased danger. If patients need to move slowly, frequent office visits can be helpful by providing ongoing support and addressing medical problems.

# **Suspected Child Abuse**

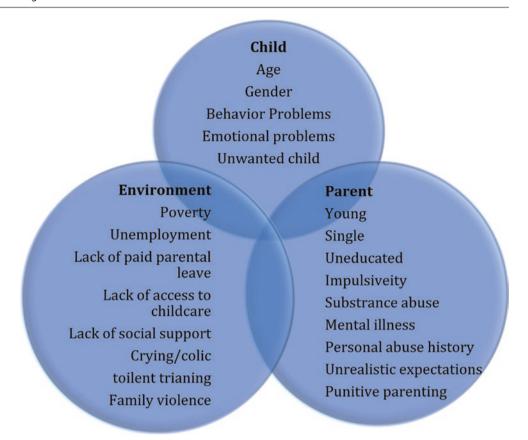
Child abuse and neglect result from a complex interaction of child, parent, and environmental factors (Fig. 8.1). Most often multiple factors coexist and are interrelated and increase the child's vulnerability to maltreatment [39]. Even if there is no single factor that overwhelms the caregiver, a combination of several stressors may precipitate an abusive crisis [40].

Individual characteristics that predispose a child to maltreatment include those that make a child more difficult to care for, or may be at odds with parental expectations. Adolescents are more likely than younger children to suffer physical abuse and neglect, however infants and toddlers are particularly vulnerable to severe and fatal maltreatment because of their smaller size and developmental phase [41]. Girls may be at higher risk for sexual abuse, although this may be in part because boys are more likely to delay disclosure of sexual abuse [42]. Children with physical or developmental disabilities, special health care needs, or chronic illnesses may also be at increased risk [43]. Physical aggression, resistance to parental direction, and antisocial behaviors also more commonly characterize maltreated children [44].

Parent characteristics associated with child maltreatment include young age, being a single parent, and low educational achievement [45]. Factors that decrease a parent's ability to cope with stress and increase the potential for maltreatment include low self-esteem, poor impulse control, substance abuse, and mental illness [46]. In addition, parents who were themselves victims of child maltreatment are more likely to have children who are abused or neglected [47]. Parents who maltreat their children are more likely to have unrealistic developmental expectations for child behavior, and to have a negative perception of normal behavior. In addition, parents with punitive parenting styles are more likely to maltreat their children [47].

Poverty and unemployment are also associated with maltreatment [48]. When low-income working parents have

**Fig. 8.1** Factors that place a child at risk for maltreatment



challenges accessing affordable and safe childcare, substandard childcare can present an elevated risk for child abuse [49]. The absence of a robust family social support system places the child at increased risk for maltreatment [48]. Young children who live in households with unrelated adults are at exceptionally high risk for abuse [50]. Children living in homes with IPV are at increased risk of being physically abused, in addition to suffering the negative emotional, behavioral, and cognitive consequences from exposure to this family violence [51–53].

High-stress situations can increase the potential for child abuse. Circumstances that occur during the course of normal child development, including colic, nighttime awakenings, and toilet training, are potential triggers for maltreatment [39]. In particular, crying is a common trigger for abusive head trauma [54]. Infant crying generally peaks between two and four months, and the incidence of abusive head trauma parallels this crying trajectory [55]. Accidents surrounding toilet training are another potential trigger. Immersion burns may be inflicted in response to encopresis or enuresis when a caregiver believes that children should be able to control these bodily functions [56]. The average age of children who have been intentionally burned is 32 months, by which time abusive parents may have expected their children to have mastered bodily functions [39].

# **Physical Abuse**

Almost no injury is pathognomonic for abuse or accident without careful consideration of the history, a thorough physical examination, and targeted radiographic or laboratory analysis. When an accidental history is offered by the caregiver, the clinician must consider if the accidental mechanism is a plausible explanation for the identified injury/injuries, and whether the mechanism is consistent with the child's developmental abilities. When abuse is suspected as the cause of an injury, the clinician may conduct tests to screen for other injuries, and to identify potential medical etiologies in the differential diagnosis of abuse. The extent of diagnostic testing depends on several factors, including the severity of the injury, the type of injury, and the age and developmental level of the child. Table 8.1 summarizes tests that may be used during a medical assessment for suspected physical abuse.

### **Skin Injuries**

Bruises are universal in active children. Bruises are also the most common injury resulting from physical abuse, the most easily recognized sign of physical abuse, and the most common direct sign of physical abuse to be missed. For these reasons, it is critical that children's skin be fully examined during medical encounters. Patterned bruises, such as slap marks or

**Table 8.1** Laboratory and radiologic testing for the evaluation of suspected physical abuse

Injury	Laboratory Testing	Radiologic Testing
Bruises	CBC PT, INR, PTT VWF antigen, VWF activity Factor VIII level, factor IX level	Skeletal survey for non-ambulatory infants with bruises Skeletal survey for children <2 years with suspicious bruising CT head/MRI head for infants <6 months or infants with suspicious bruising
Fractures	Calcium, phosphorous, ALKP Consider 25OHD, PTH Consider DNA analysis for osteogenesis imperfecta	Skeletal survey CT head/MRI head for infants <6 months
Abdominal injury	AST, ALT	CT abdomen with contrast Skeletal survey in children <2 years
Head injury	CBC PT/INR/aPTT Factor VIII level, factor IX level Fibrinogen, d-dimer Review newborn screen Consider urine organic acids	CT head MRI head and spine Skeletal survey in children <2 years

CBC complete blood count, PT prothrombin time, INR international normalized ratio, PTT Partial thromboplastin time, VWF von willebrand factor, ALKP alkaline phosphatase, 250HD 25-hydroxy vitamin D, PTH parathyroid hormone, DNA Deoxyribonucleic acid, AST aspartate aminotransferase, ALT alanine transaminase, CT computed tomography, MRI magnetic resonance imagine

marks caused by a looped cord, are highly suggestive of abuse. Bruises in healthy children tend to be distributed over bony prominences; bruises isolated to the torso, ears, cheek, or neck should raise concern [57]. Bruises in non-ambulatory infants are unusual and are highly concerning for physical abuse [58]. Many diseases are associated with bruises, including coagulopathies and vasculitis, and children who present with suspicious bruises may require screening for these hematologic disorders [59]. Bite marks are characterized by ecchymoses, abrasions, or lacerations that are found in an elliptical or ovoid pattern [60]. Bite marks can be inflicted by an adult, another child, an animal, or the patient.

Approximately 6–20% of children hospitalized with burns are victims of abuse [61]. Abusive scalds due to neglect outnumber those due to intentional injury by a factor of 9:1 [62]. Inflicted burns can be the result of contact with hot objects such as irons, radiators, stoves, or cigarettes, and from immersion injuries. Although both inflicted and accidental contact burns may be patterned, inflicted contact burns are characteristically

deep and leave a clear imprint of the hot instrument. In contrast to accidental scald injuries, inflicted scald burns have clear demarcation, uniformity of burn depth, and a characteristic pattern [63]. Dermatologic and infectious diseases can mimic abusive burns, including toxin-mediated staphylococcal and streptococcal infections, impetigo, phytophotodermatitis, and chemical burns of the buttocks from laxatives [64].

#### **Fractures**

Unexplained fractures, fractures in non-ambulatory infants, and the presence of multiple fractures raise suspicion for physical abuse [65]. Certain fracture types also have a higher specificity for abuse, such as rib fractures and classic metaphyseal lesions. Skeletal survey is the standard tool for detecting occult fractures in possible victims of child abuse [19]. Repeating skeletal surveys 2-3 weeks after an initial presentation of suspected abuse improves diagnostic sensitivity and specificity for identifying skeletal trauma in abused infants [66, 67]. Expert consensus guidelines recommend obtaining a skeletal survey in the setting of a fracture: (1) if a fracture is attributed to abuse, IPV, or being hit with a toy; (2) when there is no history of trauma; and (3) in children younger than 12 months regardless of the fracture type or reported history, with rare exceptions [68]. Vitamin and mineral deficiencies, and genetic diseases may be considered in the differential diagnosis of unexplained fractures when appropriate [69].

#### **Abdominal Injuries**

Abdominal injury is the second leading cause of mortality from physical abuse [70]. Compared with children who sustain accidental abdominal trauma, victims of abuse tend to be younger, more likely to have hollow viscera injury, more likely to have delayed presentations to medical care, and have a higher mortality rate [71, 72]. Symptomatic children can present with signs of hemorrhage or peritonitis, but many children will not display overt findings. Therefore liver enzymes are important to obtain in all children who present with serious trauma, even if they do not display acute abdominal symptoms [73]. Contrast-enhancing computed tomography (CT) is warranted if these screening laboratory tests indicate possible abdominal trauma and in all cases of symptomatic injury.

#### **Head Injuries**

Abusive head trauma is the leading cause of mortality and morbidity from physical abuse [74]. Multiple mechanisms contribute to the cerebral, spinal, and cranial injuries that result from inflicted head injury, including both shaking and blunt impact [74]. For symptomatic children, CT of the head will identify abnormalities that require immediate surgical intervention and is preferred over MRI for identifying acute hemorrhage and skull fractures and scalp swelling from blunt injury. MRI is the optimal modality for assessing intracranial injury, including cerebral hypoxia and ischemia, and

is used for all children with abnormal CT scans and asymptomatic infants with non-cranial abusive injuries [75].

An examination using indirect ophthalmoscopy is indicated in the evaluation of abusive head trauma because severe retinal hemorrhages are highly associated with abuse [76]. Conditions that may be confused with abusive head trauma include accidental/birth trauma, and metabolic, genetic, or hematologic diseases with associated vascular or coagulation defects [77]. Many of these can be ruled out through careful medical, developmental, and family history, and thorough physical examination.

# **Suspected Neglect**

Neglect occurs when a child's basic needs are not adequately met. Physical neglect, the most common form of neglect, includes failure to provide food, clothing, stable housing, supervision, or protection. Educational neglect occurs when a child's educational needs have not been met, often by failure to enroll a child in school or by chronic truancy. Emotional neglect refers to exposing a child to conditions that could result in psychological harm such are ignoring a child's need for stimulation, isolating a child, threatening a child, or verbally ridiculing a child. Medical neglect refers to lack of appropriate medical or mental health care or treatment. The general examination, including careful measurement of growth parameters, may reveal evidence of neglect, including malnutrition, extensive dental caries, or neglected wound care.

#### **Sexual Abuse**

Sexual abuse is rarely discovered because it is witnessed or due to a physical exam finding or STI diagnosis. In the vast majority of cases, suspicion for sexual abuse arises from the child's disclosure. In fact, the child's disclosure is the most important evidence in making a diagnosis of sexual abuse and therefore must be carefully documented in the medical record. Many communities have child advocacy centers where children can be referred when concerns of sexual abuse arise. Depending on the community services available, the physician should be prepared to conduct a basic medical interview with a verbal child when there is a concern regarding sexual abuse. Any disclosure should be recorded word for word in the medical record [78]. If the sexual abuse occurred in the distant past and the asymptomatic child is going to be referred to a specialty center for medical evaluation, examination might be deferred. However, if the abuse is recent and the child is reporting genital or anal pain or bleeding, examination should be performed to rule out injury.

Most sexually abused children have normal anogenital examinations [79]. The sexual abuse of children may not result in injury and when injury does occur the anogenital tissue often heals quickly and completely [80]. A normal examination of the genitalia and anus does not rule out sexual abuse [81].

Sexually abused adolescents should be tested for chlamydia, gonorrhea, trichomonas, and pregnancy [82, 83]. In addition, the CDC suggests hepatitis B testing in unimmunized victims and consideration of human immunodeficiency virus (HIV) and syphilis testing in populations in which there is a high incidence of infection, or when the victim requests these tests [84]. STIs in pre-pubertal children evaluated for abuse are rare and thus a targeted approach is recommended [85]. Factors that may prompt testing include vaginal or anal penetration, abuse by a stranger, abuse by a perpetrator infected or at risk of infection with an STI, having a household contact with an STI, or signs or symptoms of an STI. Positive results should be confirmed using additional tests in populations with a low prevalence of the infection or when a false-positive test could have an adverse outcome. If diagnosed with an STI, the child should be treated promptly. Children who have had recent sexual contact should be immediately referred to a specialized clinic or emergency department capable of forensic evidence collection [86]. Most states recommend that forensic evidence be collected in less than 72 or 96 hours since the assault.

# **Suspected Elder Mistreatment**

Spouses and adult children are the most common perpetrators of elder abuse [87]. Living with another adult is a major risk factor for elder abuse, perhaps due to increased opportunities for contact and conflict in a shared living arrangement [10, 87]. An exception to this pattern is financial abuse, for which victims are more likely to live alone [88]. Several studies have reported higher rates of physical abuse in patients with dementia [89, 90]. A likely mechanism is the high rate of disruptive and aggressive behaviors of patients, which are a major cause of stress and distress to caregivers. Social isolation has been identified as a risk factor for elder abuse [91]. There are certain perpetrator-specific risk factors as well, including mental illness and alcohol misuse [89, 92]. Finally, elder abusers tend to be heavily financially dependent on the person they are mistreating [93].

Once the possibility of elder abuse has been raised, a comprehensive assessment is necessary. If there are no cognitive limitations, the patient should be interviewed alone and asked directly about the etiology of any concerning findings [94]. Often patients are initially unwilling to speak openly about being an elder abuse victim due to embarrassment, shame, or fear of retribution from the perpetrator who is frequently a caregiver [94]. Interview of the suspected abuser is a potentially hazardous undertaking and not necessary [94]. Elder abusers who are presented with an empathetic, non-judgmental ear to describe their stresses and actions will sometimes describe their situations at great length and in great detail. However, all forms of domestic

abuse share a pattern wherein abusers gain and control access to their victims. An elder abuser confronted with allegations of mistreatment may move to sequester a victim in such a way that a fragile, isolated adult loses access to critically needed medical, and social services [94].

# **Management Strategies**

# **Mandated Reporting**

In every state, health care providers are mandated by law to identify and report all cases of suspected child abuse and neglect. Yet, much of the abuse that is recognized by physicians does not get reported to CPS for investigation [16]. In part this is because clinicians may incorrectly believe that making a report requires certainty in their diagnosis of child abuse, rather than having a reasonable suspicion for maltreatment as the law requires. In addition, many clinicians believe that reporting to CPS is not an effective intervention and distrust the ability of the child welfare system to protect children [17]. In all states, the law provides immunity for good faith reporting. However, failing to report may result in malpractice suits, criminal offenses, licensing penalties, and continued abuse to the child. Mandated reporters must become familiar with their state-specific reporting procedures and laws. Most states, for example, have specific language about threat of harm or substantial risk to health or welfare in physical abuse statutes. Failure to educate is included in neglect statutes in about half of states, while medical neglect is defined in ten states [95].

Prenatal exposure to some drugs may cause a neonatal abstinence syndrome or neurodevelopmental consequences. Evidence of substance exposure at birth or prenatal exposure to illegal substances is considered child abuse in about half of states. Parenting after birth can be profoundly impacted by substance use, leading to risk for abuse, neglect, and exposure to production and distribution of illegal substances. Sixteen percent of child abuse reports include alcohol abuse as an additional risk factor and 29% include drug abuse as an additional risk factor [5]. In addition, alcohol or drug abuse is one of the reasons for child removal from the home in 39% of cases [96]. Most states have specific laws regarding maltreatment reporting and additional penalties for parent substance use and related exposures, but the laws vary by state [97].

Health care provider cooperation with CPS investigations is critical to effective decision making by investigators. Health Insurance Portability and Accountability Act rules allow disclosure of protected health information to CPS without authorization by a legal guardian when the clinician has made a mandatory report, but state laws differ regarding the release of health information during and after investigations are complete [98]. More than half of states specify cir-

cumstances of the child witnessing IPV that constitutes maltreatment. These statutes often include language around witnessing that includes a child within sight or sound of the IPV, and/or IPV that is escalating or involves a weapon [99]. Clinicians should know their specific state's reporting requirements before screening and inform the caregiver accordingly. In most states cases of elder abuse must be reported to adult protective services. Websites such as www.endabuse.org, http://www.childwelfare.gov, or http://www.eldercare.gov/Eldercare.NET/Public/Index.aspx provide information on state-specific laws about mandated reporting and available resources.

#### **Trauma-Informed Care**

About half of adults report one or more adverse child experiences, experiences that can contribute to a variety of acute and chronic health conditions. Because of the important role of adversity in health and well-being, there has been steady advocacy, research, change in reimbursement, and practice to support trauma-informed care. Trauma-informed care is defined by the National Traumatic Stress Network as "medical care in which all parties involved assess, recognize, and respond to the traumatic effects of stress on children, caregivers, and healthcare providers" [100]. The American Academy of Pediatrics has published recent guidance for practitioners in delivering trauma-informed care. Understanding the role stress plays in emotional and behavioral symptoms, evidencebased screening for such symptoms using validated tools to screen for depression and anxiety, treatment for disorders when diagnosed, and avoiding re-traumatization by the use of non-threatening language and exam procedures are all important components of trauma-informed care [100]. The training required for a truly trauma-informed practice can be a barrier to providing this care.

Many experts encourage screening for adverse childhood experiences as a part of trauma-informed care with the rationale that adversities are common and are linked to a variety of acute and chronic health conditions. However, adverse childhood experiences screening tools are quite varied, not validated, and may screen for events that occurred in the past and do not need to be addressed in the present. There is also a lack of tools to address these events, such as neighborhood violence [35]. The state of California reimburses practices for adverse childhood experience screening and recently passed legislation to require commercial insurers to reimburse for adverse childhood experience screening [101]. Other states may follow this example. Screening for recent or ongoing trauma as well as unmet social needs such as food and housing insecurity represents an alternative approach to adverse childhood experience screening that can be incorporated in trauma-informed care [35].

# **Approaching Intimate Partner Violence**

Clinicians should educate patients on the dynamics of partner violence and potential effects on victims and their children, helping them understand that once violent dynamics are established in a relationship, the violence generally continues and escalates over time. Health care providers can convey concern to patients regarding the negative physical and mental effects that IPV may have on patients and their children. Although addressing IPV is usually a long-term process, health care providers should be alert to crisis situations that indicate imminent danger (e.g., escalating violence, use of or threat with a weapon, drug or alcohol use). Assessing for these risk factors provides an opportunity to educate patients about what situations indicate increased risk.

Health care providers should refer victims of IPV to local resources that can provide advocacy and support. Physicians and others should be familiar with organizations in their communities that provide assistance to victims of IPV, including organizations' capacity to accommodate specific populations such as immigrants, specific ethnic or cultural groups, teens, lesbian, gay, bisexual or transgender clients, or persons with disabilities. Resources can also include community-based advocacy groups, shelters, law enforcement agencies, or social workers. The National DV Hotline (800-799-SAFE) can serve as an information source. If immediate concerns for safety exist, the health care providers can offer to contact these resources for the patient directly from the office. A follow-up visit should be scheduled, and IPV should be readdressed at future visits.

# **Approach to Child Maltreatment**

The treatment of child maltreatment is complex and challenging. Many of the approaches developed by child welfare agencies, health care providers, therapists, and others have not been rigorously tested, and many families suffer from chronic dysfunction and a multitude of challenges that require broad approaches to management.

Abuse-Focused Cognitive Behavioral Therapy (AF-CBT) and Parent–Child Interaction Therapy (PCIT) are considered "best-practice" interventions for the treatment of physical abuse [102]. Both are dyadic interventions designed to alter specific maladaptive patterns of interaction in parent–child relationships. AF-CBT represents an approach to working with abused children and their offending caregivers based on learning theory and behavioral principles that target child, parent, and family characteristics related to the maltreatment [103]. The approach is designed to promote the expression of appropriate/prosocial behavior and to discourage the use of coercive, aggressive, or violent behavior. PCIT is a highly

**Table 8.2** Trauma resources

Resource	Website
AAP Healthy Foster Care America	www.aap.org/
	fostercare
AAP Cope with Trauma Guide	www.aap.org/
	traumaguide
AAP Medical Home for Children and	www.aap.org/
Adolescents Exposed to Violence	medhomecev
National Child Traumatic Stress Network	http://nctsn.org
SAMHSA National Center for Trauma-	www.samhsa.gov/
Informed Care	nctic/trama.asp

specified, step-by-step, live-coached behavioral parent training model. Immediate prompts are provided to a parent by a therapist while the parent interacts with their child. Over the course of 14–20 weeks, parents are coached to develop specific positive relationship skills, which then results in child compliance to parent commands [104, 105].

When abused children develop post-traumatic stress disorder symptoms, Trauma-Focused Cognitive Behavioral Therapy (TF-CBT) is effective [106]. TF-CBT has been most widely used for children who have been sexually abused or have witnessed IPV and involves structured individual and parent trauma-focused models with skills-based components followed by more trauma-specific components with gradual exposure integrated into each component [106].

Clinicians should become familiar with programs in their geographic area of practice, which provide evidence-based interventions for children who have experienced abuse or IPV exposure. Additional information on trauma-informed care resources is listed in Table 8.2.

# Enhanced Health Care Needs of Maltreated Children

Maltreated children, particularly those in foster care, exhibit high rates of acute and chronic physical, developmental, and mental health conditions [107–110]. In fact, nearly 80% of children in foster care have significant physical, mental, and developmental health care needs [111]. Exposures such as insufficient prenatal care, prematurity, or in-utero toxins as well as chronic abuse/neglect have direct and indirect effects on the health and well-being of this population.

The interplay of chronic or prolonged stress, physiologic response to that toxic stress, and behavioral adaptations to this stress impact the health of children over the life course. Maltreated children may require more frequent preventive health visits due to multiple environmental and social issues that can adversely impact their health. Furthermore, this medically vulnerable population requires intensive, integrated behavioral and medical care.

#### **Approach to Elder Mistreatment**

There are no evidence-based interventions regarding treatment for elder abuse and clinicians should view elder abuse as multifactorial rather than as a homogeneous condition. However, clinicians can offer interventions that may mitigate the impact of the abuse. Table 8.3 lists potential interventions to be considered in the treatment of elder maltreatment. Resources for clinicians and families who are dealing with elder mistreatment can be found at Area Agencies on Aging (http://www.n4a.org).

# **Prevention of Family Violence**

More focus is needed on the prevention of family violence, child maltreatment, and elder mistreatment. Within the social–ecological context, prevention of family violence can be targeted to the individual level, the family/relationship level, the community level, and the societal/policy level. For instance, on the individual level, addressing known risk factors for family violence within an individual at risk of perpetrating abuse such as depression or substance addiction, may be an effective prevention strategy. Parent education programs, parenting programs that focus on strengthening parent–child relationship and positive parenting skills, and intensive home visiting are among the most evaluated programs for family/relationship level interventions [112–115]. Intensive home visiting has a substantial evidence base in the

 Table 8.3
 Interventions to consider for elder abuse

Abuse Trigger to Target	Potential Interventions
Alleviating caregiver	Respite services
stress	Adult daycare
	Caregiver education program
	Recruitment of other family, informal, or
	paid caregivers to share burden of care
	Social integration of caregiver to reduce
	isolation
Treating specific	Treatment for caregiver depression or
caregiver deficiency	mental illness
	Referral to alcohol or drug misuse
	rehabilitation program
Aggressive symptoms	Geriatric medical assessment of causes of
in patient with	underlying behavior and treatment of
dementia	aggressive symptoms
Long-standing spousal	Marital counseling
violence	Support groups
	Shelters
	Orders of protection
	Victim advocacy
Financial exploitation	Guardianship proceedings
by family member	Power of attorney
	Adult Protective Services
Financial exploitation	Legal services
by paid caregiver	Law enforcement
	Adult Protective Services

prevention of child maltreatment. Despite this demonstrated track record, it remains poorly disseminated, engagement and retention in this type of program is limited, and outcomes are hard to reproduce.

Community-based programs that seek to change social norms around parenting and family dynamics have also been shown to be successful [116]. These programs are often implemented in combination with some level of individual or family level intervention. Finally, at the societal level, there are untapped opportunities for prevention. Large societal factors influencing family violence include the health, economic, educational, and social policies that help to maintain economic and social inequalities between groups in society. For example, policies addressing Medicaid expansion, paid family leave, earned income tax credit, and lack of waitlists to access subsidized child care have each independently been associated with decreases in child maltreatment [117–119].

#### **Future Directions**

Child abuse, family violence, and elder mistreatment are tied to substantial burdens of suffering and associated costs to communities (e.g., health care, criminal justice, mental illness, substance use). These conditions and maladaptations should ultimately be viewed as problems of the individuals involved, as well as the family, the community, and the greater social environment. For health care providers, there is ample opportunity to: (1) identify families at risk, (2) provide resources and referral, (3) treat the sequelae, and (4) advocate for the most constructive programs and policies to reduce the burden of suffering.

The most important frontiers in research will be the development, adoption, and sustained implementation of programs—prevention and intervention—for families across the life course who are at risk and victimized by violence. The most effective types of intervention for child maltreatment, for example, is intensive home visiting [115, 120], however, these programs are available to relatively few families who may benefit, and recruitment and retention rates are low. In addition, although these approaches require significant resources per person, they can be adapted and scaled across a broader range of settings, such as primary care, early care and education, schools, and long-term care. Finally, research is needed on how to most effectively engage and retain families in effective prevention and treatment programs.

The COVID-19 pandemic created and amplified multiple risk areas for family violence, including unemployment, social isolation, disruptions of childcare, and stress associated with loss, illness, and death. These stressors contributed to a remarkable increase in substance use, with more than one in ten adults reporting they started or increased the use of alcohol or drugs to cope with the pandemic [121]. Rates of depres-

sion also increased with 32.8% of US adults experiencing elevated depressive symptoms in 2021 compared to 8.5% prepandemic [122]. In spite of these increased risks, there was not a significant rise in child maltreatment related to COVID-19 [123–125]. The sharp decrease in reports of maltreatment to child protective services at the beginning of the pandemic was initially thought to be attributed not to an actual decrease in maltreatment, but to surveillance bias because children were at home, with limited access to mandated reporters (e.g., teachers, daycare providers). However, large increases in reporting were not observed with the return to in-person school and multiple studies indicate that abuse-related hospitalizations did not increase during the COVID-19 pandemic [123–125]. Although this paradox is not fully understood, it may provide insight into family violence prevention, indicating that federal financial assistance to at-risk families was protective or contributed to increased parental presence at home, leading to stronger parent-child relationships. At this time, there has been limited research that has examined the impact of the pandemic on IPV or elder mistreatment.

# References

- Breiding MJ, Basile KC, Smith SG, Black MC, Mahendra R. Intimate partner violence surveillance: uniform definitions and recommended data elements, version 2.0. National Center for Injury Prevention and Control, Centers for Disease Control and Prevention: Atlanta, GA; 2015.
- Black MBK, Breiding M. The National Intimate Partner and Sexual Violence Survey (NISVS): 2010 summary report. Atlanta, GA: National Center for Injury Prevention and Control, Centers for Diseases Control and Prevention; 2010.
- U.S. Department of Justice BoJS, editor. Homicide trends in the United States, 1980–2008. 2011.
- The Child Abuse Prevention and Treatment Act (CAPTA) Reauthorization Act of 2010, Pub. L. No. P.L. 111-320(12/20/2010, 2010)
- US Department of Health & Human Services. Child maltreatment 2019. 2021.
- Middlebrooks JS, Audage NC. The effects of childhood stress on health across the lifespan; 2008.
- Felitti VJ, Anda RF, Nordenberg D, Williamson DF, Spitz AM, Edwards V, et al. Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: the Adverse Childhood Experiences (ACE) Study. Am J Prev Med. 1998;14(4):245–58.
- https://www.cdc.gov/masstrauma/factsheets/professionals/coping\_professional.pdf.
- Sciences NAo. Elder abuse: abuse, neglect, and exploitation in an aging America. In: Bonnie R WR, editor. Washington DC: National Academy Press; 2002.
- Pillemer K, Finkelhor D. The prevalence of elder abuse: a random sample survey. The Gerontologist. 1988;28(1):51–7.
- Moyer VA. Screening for intimate partner violence and abuse of elderly and vulnerable adults: US Preventive Services Task Force recommendation statement. Ann Intern Med. 2013;158(6):478–86.
- Plichta SB. Intimate partner violence and physical health consequences policy and practice implications. J Interpers Violence. 2004;19(11):1296–323.

- Rabin RF, Jennings JM, Campbell JC, Bair-Merritt MH. Intimate partner violence screening tools: a systematic review. Am J Prev Med. 2009;36(5):439–45.e4.
- Pai N, Kandasamy S, Uleryk E, Maguire JL. Social risk screening for pediatric inpatients. Clin Pediatr. 2015:0009922815623498.
- Jenny C, Hymel KP, Ritzen A, Reinert SE, Hay TC. Analysis of missed cases of abusive head trauma. JAMA. 1999;281(7):621–6.
- Sheets LK, Leach ME, Koszewski IJ, Lessmeier AM, Nugent M, Simpson P. Sentinel injuries in infants evaluated for child physical abuse. Pediatrics. 2013;131(4):701–7.
- 17. Jones R, Flaherty EG, Binns HJ, Price LL, Slora E, Abney D, et al. Clinicians' description of factors influencing their reporting of suspected child abuse: report of the Child Abuse Reporting Experience Study Research Group. Pediatrics. 2008;122(2):259–66.
- King WK, Kiesel EL, Simon HK. Child abuse fatalities: are we missing opportunities for intervention? Pediatr Emerg Care. 2006;22(4):211–4.
- Christian CW, Crawford-Jakubiak JE, Flaherty EG, Leventhal JM, Lukefahr JL, Sege RD, et al. The evaluation of suspected child physical abuse. Pediatrics. 2015;135(5):e1337–e54.
- Lane WG, Rubin DM, Monteith R, Christian CW. Racial differences in the evaluation of pediatric fractures for physical abuse. JAMA. 2002;288(13):1603–9.
- Lane WG, Dubowitz H. What factors affect the identification and reporting of child abuse-related fractures? Clin Orthop Relat Res. 2007;461:219–25.
- Wood JN, Hall M, Schilling S, Keren R, Mitra N, Rubin DM. Disparities in the evaluation and diagnosis of abuse among infants with traumatic brain injury. Pediatrics. 2010;126(3):408–14.
- Schilling S, Samuels-Kalow M, Gerber JS, Scribano PV, French B, Wood JN. Testing and treatment after adolescent sexual assault in pediatric emergency departments. Pediatrics. 2015;136(6):e1495–503.
- Lentsch KA, Johnson CF. Do physicians have adequate knowledge of child sexual abuse? The results of two surveys of practicing physicians, 1986 and 1996. Child Maltreat. 2000;5(1):72–8.
- Starling SP, Heisler KW, Paulson JF, Youmans E. Child abuse training and knowledge: a national survey of emergency medicine, family medicine, and pediatric residents and program directors. Pediatrics. 2009;123(4):e595–602.
- Garner AS, Shonkoff JP, Siegel BS, Dobbins MI, Earls MF, McGuinn L, et al. Early childhood adversity, toxic stress, and the role of the pediatrician: translating developmental science into lifelong health. Pediatrics. 2012;129(1):e224–e31.
- 27. Shonkoff JP, Garner AS, Committee on Psychosocial Aspects of Child and Family Health; Committee on Early Childhood, Adoption, and Dependent Care; Section on Developmental and Behavioral Pediatrics. The lifelong effects of early childhood adversity and toxic stress. Pediatrics. 2012;129(1):e232–e46.
- Shonkoff JP, Garner AS, Siegel BS, Dobbins MI, Earls MF, McGuinn L, et al. The lifelong effects of early childhood adversity and toxic stress. Pediatrics. 2012;129(1):e232–e46.
- Forkey H, Szilagyi M. Foster care and healing from complex childhood trauma. Pediatr Clin N Am. 2014;61(5):1059–72.
- Johnson SB, Riley AW, Granger DA, Riis J. The science of early life toxic stress for pediatric practice and advocacy. Pediatrics. 2013;131(2):319–27.
- Dantzer R, O'Connor JC, Freund GG, Johnson RW, Kelley KW. From inflammation to sickness and depression: when the immune system subjugates the brain. Nat Rev Neurosci. 2008;9(1):46–56.
- Petruccelli K, Davis J, Berman T. Adverse childhood experiences and associated health outcomes: a systematic review and metaanalysis. Child Abuse Negl. 2019;97:104127.
- DeCamp M, DeSalvo K, Dzeng E. Ethics and spheres of influence in addressing social determinants of health. J Gen Intern Med. 2020;35(9):2743–5.

- Berkowitz SA, Kangovi S. Health care's social movement should not leave science behind. Milbank Quarterly Opinion. September 3, 2020. https://doi.org/10.1599/mqop.2020.0826.
- Dubowitz HFD, Zolotor A, Kleven J, Davis N. Addressing adverse childhood experiences in primary care: challenges and considerations. Pediatrics. 2022;149:e2021052641.
- Lachs MS. Elder abuse. In: Halter JB, Ouslander JG, Stephanie S, High KP, Asthana S, Supiano MA, Ritchie C, editors. Hazzard's geriatic medicine and gerontology. 7th ed. McGraw-Hill Education: 2016
- Nelson HD, Bougatsos C, Blazina I. Screening women for intimate partner violence: a systematic review to update the US Preventive Services Task Force recommendation. Ann Intern Med. 2012;156(11):796–808.
- 38. Rivas C, Ramsay J, Sadowski L, Davidson LL, Dunne D, Eldridge S, et al. Advocacy interventions to reduce or eliminate violence and promote the physical and psychosocial well-being of women who experience intimate partner abuse. The Cochrane Library; 2015.
- Flaherty EG, Stirling J. The pediatrician's role in child maltreatment prevention. Pediatrics. 2010;126(4):833–41.
- 40. Brown J, Cohen P, Johnson JG, Salzinger S. A longitudinal analysis of risk factors for child maltreatment: findings of a 17-year prospective study of officially recorded and self-reported child abuse and neglect. Child Abuse Negl. 1998;22(11):1065–78.
- Finkelhor D, Ormrod R, Turner H, Hamby SL. The victimization of children and youth: a comprehensive, national survey. Child Maltreat. 2005;10(1):5–25.
- O'Leary PJ, Barber J. Gender differences in silencing following childhood sexual abuse. J Child Sex Abus. 2008;17(2):133–43.
- Hibbard RA, Desch LW, American Academy of Pediatrics Committee on Child A, Neglect, American Academy of Pediatrics Council on Children with D. Maltreatment of children with disabilities. Pediatrics. 2007;119(5):1018–25.
- Kolko DJ. Characteristics of child victims of physical violence research findings and clinical implications. J Interpers Violence. 1992;7(2):244–76.
- Sidebotham P, Heron J. Child maltreatment in the "children of the nineties": a cohort study of risk factors. Child Abuse Negl. 2006;30(5):497–522.
- 46. Kelleher K, Chaffin M, Hollenberg J, Fischer E. Alcohol and drug disorders among physically abusive and neglectful parents in a community-based sample. Am J Public Health. 1994;84(10):1586–90.
- Oates RK, Davis AA, Ryan MG. Predictive factors for child abuse.
   J Paediatr Child Health. 1980;16(4):239–43.
- Kotch JB, Browne DC, Dufort V, Winsor J, Catellier D. Predicting child maltreatment in the first 4 years of life from characteristics assessed in the neonatal period. Child Abuse Negl. 1999;23(4):305–19.
- Fortson B, Klevens J, Merrick M, Gilbert L, Alexander S. Preventing child abuse and neglect: a technical package for policy, norm, and programmatic activities. National Center for Injury Prevention and Control; 2016.
- Schnitzer PG, Ewigman BG. Child deaths resulting from inflicted injuries: household risk factors and perpetrator characteristics. Pediatrics. 2005;116(5):e687–e93.
- Christian CW, Scribano P, Seidl T, Pinto-Martin JA. Pediatric injury resulting from family violence. Pediatrics. 1997;99(2):e8.
- Holt S, Buckley H, Whelan S. The impact of exposure to domestic violence on children and young people: a review of the literature. Child Abuse Negl. 2008;32(8):797–810.
- Zolotor AJ, Theodore AD, Coyne-Beasley T, Runyan DK. Intimate partner violence and child maltreatment: overlapping risk. Brief Treat Crisis Interv. 2007;7(4):305.

- 54. Brewster AL, Nelson JP, Hymel KP, Colby DR, Lucas DR, McCanne TR, et al. Victim, perpetrator, family, and incident characteristics of 32 infant maltreatment deaths in the United States air Force. Child Abuse Negl. 1998;22(2):91–101.
- 55. Barr RG, Trent RB, Cross J. Age-related incidence curve of hospitalized shaken baby syndrome cases: convergent evidence for crying as a trigger to shaking. Child Abuse Negl. 2006;30(1):7–16.
- Daria S, Sugar NF, Feldman KW, Boos SC, Benton SA, Ornstein A. Into hot water head first: distribution of intentional and unintentional immersion burns. Pediatr Emerg Care. 2004;20(5):302–10.
- Pierce MC, Kaczor K, Aldridge S, O'Flynn J, Lorenz DJ. Bruising characteristics discriminating physical child abuse from accidental trauma. Pediatrics. 2010;125(1):67–74.
- Sugar NF, Taylor JA, Feldman KW. Bruises in infants and toddlers: those who don't cruise rarely bruise. Arch Pediatr Adolesc Med. 1999;153(4):399–403.
- Anderst JD, Carpenter SL, Abshire TC, Hord J, Crouch G, Hale G, et al. Evaluation for bleeding disorders in suspected child abuse. Pediatrics. 2013;131(4):e1314–e22.
- Kellogg N. Oral and dental aspects of child abuse and neglect. Pediatrics. 2005;116(6):1565–8.
- Peck MD, Priolo-Kapel D. Child abuse by burning: a review of the literature and an algorithm for medical investigations. J Trauma Acute Care Surg. 2002;53(5):1013–22.
- Chester DL, Jose RM, Aldlyami E, King H, Moiemen NS. Non-accidental burns in children—are we neglecting neglect? Burns. 2006;32(2):222–8.
- Purdue GF, Hunt JL, Prescott PR. Child abuse by burning-an index of suspicion. J Trauma Acute Care Surg. 1988:28(2):221–4.
- Leventhal JM, Griffin D, Duncan KO, Starling S, Christian CW, Kutz T. Laxative-induced dermatitis of the buttocks incorrectly suspected to be abusive burns. Pediatrics. 2001;107(1):178–9.
- Leventhal JM, Thomas SA, Rosenfield NS, Markowitz RI. Fractures in young children: distinguishing child abuse from unintentional injuries. Am J Dis Child. 1993;147(1):87–92.
- Kleinman PK, Nimkin K, Spevak MR, Rayder SM, Madansky DL, Shelton YA, et al. Follow-up skeletal surveys in suspected child abuse. AJR Am J Roentgenol. 1996;167(4):893–6.
- Zimmerman S, Makoroff K, Care M, Thomas A, Shapiro R. Utility
  of follow-up skeletal surveys in suspected child physical abuse
  evaluations. Child Abuse Negl. 2005;29(10):1075–83.
- Wood JN, Fakeye O, Feudtner C, Mondestin V, Localio R, Rubin DM. Development of guidelines for skeletal survey in young children with fractures. Pediatrics. 2014;134(1):45–53.
- Flaherty EG, Perez-Rossello JM, Levine MA, Hennrikus WL, Christian CW, Crawford-Jakubiak JE, et al. Evaluating children with fractures for child physical abuse. Pediatrics. 2014;133(2):e477–e89.
- Barnes PM, Norton CM, Dunstan FD, Kemp AM, Yates DW, Sibert JR. Abdominal injury due to child abuse. Lancet. 2005;366(9481):234–5.
- Wood J, Rubin DM, Nance ML, Christian CW. Distinguishing inflicted versus accidental abdominal injuries in young children. J Trauma Acute Care Surg. 2005;59(5):1203–8.
- Maguire SA, Upadhyaya M, Evans A, Mann MK, Haroon M, Tempest V, et al. A systematic review of abusive visceral injuries in childhood—their range and recognition. Child Abuse Negl. 2013;37(7):430–45.
- Lindberg DM, Shapiro RA, Blood EA, Steiner RD, Berger RP. Utility of hepatic transaminases in children with concern for abuse. Pediatrics. 2013;131(2):268–75.
- Christian CW, Block R. Abusive head trauma in infants and children. Pediatrics. 2009;123(5):1409–11.
- Boos M. Abusive head trauma part II: radiological aspects. Eur J Pediatr. 2012;171:617–23.

- Vinchon M, de Foort-Dhellemmes S, Desurmont M, Delestret I. Confessed abuse versus witnessed accidents in infants: comparison of clinical, radiological, and ophthalmological data in corroborated cases. Childs Nerv Syst. 2010;26(5):637–45.
- Sirotnak A. Medical disorders that mimic abusive head trauma.
   Abusive head trauma in infants and children. St Louis, MO: GW Medical Publishing; 2006. p. 191–214.
- Jenny C, Crawford-Jakubiak JE, Christian CW, Flaherty EG, Leventhal JM, Lukefahr JL, et al. The evaluation of children in the primary care setting when sexual abuse is suspected. Pediatrics. 2013;132(2):e558–e67.
- Heger A, Ticson L, Velasquez O, Bernier R. Children referred for possible sexual abuse: medical findings in 2384 children. Child Abuse Negl. 2002;26(6):645–59.
- McCann J, Miyamoto S, Boyle C, Rogers K. Healing of nonhymenal genital injuries in prepubertal and adolescent girls: a descriptive study. Pediatrics. 2007;120(5):1000–11.
- Kellogg ND, Menard SW, Santos A. Genital anatomy in pregnant adolescents: "normal" does not mean "nothing happened.". Pediatrics. 2004;113(1):e67–e9.
- Kaufman M. Care of the adolescent sexual assault victim. Pediatrics. 2008;122(2):462–70.
- Sexually transmitted infections. In: Pediatrics AAo, editor. Red book: 2003 report of the Committee of Infectious Diseases 29th ed. Elk Grove Village, IL: American Academy of Pediatrics; 2012. p. 157–67
- 84. Workowski KA, Berman SM. Centers for Disease Control and Prevention sexually transmitted disease treatment guidelines. Clin Infect Dis. 2011;53(suppl 3):S59–63.
- 85. Adams JA, Kellogg ND, Farst KJ, Harper NS, Palusci VJ, Frasier LD, et al. Updated guidelines for the medical assessment and care of children who may have been sexually abused. J Pediatr Adolesc Gynecol. 2016;29(2):81–7.
- Kairys S, Alexander R, Block R, Everett V, Hymel K, Johnson C, et al. Guidelines for the evaluation of sexual abuse of children: subject review. Pediatrics. 1999;103(1):186–91.
- 87. Lachs MS, Williams C, O'Brien S, Hurst L, Horwitz R. Risk factors for reported elder abuse and neglect: a nine-year observational cohort study. The Gerontologist. 1997;37(4):469–74.
- 88. Choi NG, Kulick DB, Mayer J. Financial exploitation of elders: analysis of risk factors based on county adult protective services data. J Elder Abuse Negl. 1999;10(3–4):39–62.
- Paveza GJ, Cohen D, Eisdorfer C, Freels S, Semla T, Ashford JW, et al. Severe family violence and Alzheimer's disease: prevalence and risk factors. The Gerontologist. 1992;32(4):493–7.
- Dyer CB, Pavlik VN, Murphy KP, Hyman DJ. The high prevalence of depression and dementia in elder abuse or neglect. J Am Geriatr Soc. 2000;48(2):205–8.
- Lachs MS, Berkman L, Fulmer T, Horwitz RI. A prospective community-based pilot study of risk factors for the investigation of elder mistreatment. J Am Geriatr Soc. 1994;42(2):169–73.
- 92. Campbell Reay A, Browne K. Risk factor characteristics in carers who physically abuse or neglect their elderly dependants. Aging Ment Health. 2001;5(1):56–62.
- 93. Greenberg JR, McKibben M, Raymond JA. Dependent adult children and elder abuse. J Elder Abuse Negl. 1990;2(1-2):73-86.
- 94. LachsMS, Pillemer K. Elderabuse. Lancet. 2004;364(9441):1263-72.
- 95. Child Welfare Information Gateway. Definitions of child abuse and neglect. Washington, DC: U.S. Department of Health and Human Services, Children's Bureau; 2019.
- https://ncsacw.samhsa.gov/research/child-welfare-and-treatmentstatistics.aspx [Internet].
- Child Welfare Information Gateway. Parental substance use as child abuse. Washington, DC: U.S. Department of Health and Human Services, Children's Bureau; 2020.

- Jenny C, Christian CW, Crawford J, Flaherty E, Hibbard R, Kaplan R, et al. Policy statement-child abuse, confidentiality, and the health insurance portability and accountability act. Pediatrics. 2010;125(1):197–201.
- Child Welfare Information Gateway. Child witnesses to domestic violence. U.S. Department of Health and Human Services, Administration for Children and Families, Children's Bureau; 2021.
- 100. Forkey H, Szilagyi M, Kelly ET, Duffee J, Springer SH, Fortin K, et al. Trauma-informed care. Pediatrics. 2021;148:2.
- Health care coverage: adverse childhood experiences screenings, Legislative Counsel of California; 2021.
- Chaffin M, Friedrich B. Evidence-based treatments in child abuse and neglect. Child Youth Serv Rev. 2004;26(11):1097–113.
- Kolko D, Swenson CC. Assessing and treating physically abused children and their families: a cognitive-behavioral approach. Sage Publications; 2002.
- 104. Timmer SG, Urquiza AJ, Zebell NM, McGrath JM. Parent-child interaction therapy: application to maltreating parent-child dyads. Child Abuse Negl. 2005;29(7):825–42.
- 105. Chaffin M, Silovsky JF, Funderburk B, Valle LA, Brestan EV, Balachova T, et al. Parent-child interaction therapy with physically abusive parents: efficacy for reducing future abuse reports. J Consult Clin Psychol. 2004;72(3):500.
- Cohen JA, Mannarino AP, Deblinger E. Treating trauma and traumatic grief in children and adolescents. Guilford Press; 2006.
- Justin RG. Medical needs of foster children. Am Fam Physician. 2003;67(3):474, 6-, 6.
- 108. Hansen RL, Mawjee FL, Barton K, Metcalf MB, Joye NR. Comparing the health status of low-income children in and out of foster care. Child Welfare. 2004;83(4):367.
- 109. Kools S, Paul SM, Jones R, Monasterio E, Norbeck J. Health profiles of adolescents in foster care. J Pediatr Nurs. 2013;28(3):213–22.
- 110. Jee SH, Barth RP, Szilagyi MA, Szilagyi PG, Aida M, Davis MM. Factors associated with chronic conditions among children in foster care. J Health Care Poor Underserved. 2006;17(2):328–41.
- 111. Brown KE. Foster care: state practices for assessing health needs facilitating service delivery, and monitoring children's. Care: DIANE Publishing; 2009.
- 112. Zolotor AJ, Runyan DK, Shanahan M, Durrance CP, Nocera M, Sullivan K, et al. Effectiveness of a statewide abusive head trauma prevention program in North Carolina. JAMA Pediatr. 2015;169(12):1126–31.
- 113. Schilling S, French B, Berkowitz SJ, Dougherty SL, Scribano PV, Wood JN. Child adult relationship enhancement in primary care: a randomized trial of a parent training for child behavior problems. Acad Pediatr. 2016;
- 114. Dubowitz H, Lane WG, Semiatin JN, Magder LS. The seek model of pediatric primary care: can child maltreatment be prevented in a low-risk population? Acad Pediatr. 2012;12(4):259–68.
- 115. Selph SS, Bougatsos C, Blazina I, Nelson HD. Behavioral interventions and counseling to prevent child abuse and neglect: a systematic review to update the US Preventive Services Task Force recommendation. Ann Intern Med. 2013;158(3):179–90.
- 116. Sanders MR, Ralph A, Sofronoff K, Gardiner P, Thompson R, Dwyer S, et al. Every family: a population approach to reducing behavioral and emotional problems in children making the transition to school. J Prim Prev. 2008;29(3):197–222.
- 117. Brown EC, Garrison MM, Bao H, Qu P, Jenny C, Rowhani-Rahbar A. Assessment of rates of child maltreatment in states with Medicaid expansion vs states without Medicaid expansion. JAMA Netw Open. 2019;2(6):e195529.
- 118. Klevens J, Luo F, Xu L, Peterson C, Latzman NE. Paid family leave's effect on hospital admissions for pediatric abusive head trauma. Inj Prev. 2016;22(6):442–5.

- Klevens J, Barnett SBL, Florence C, Moore D. Exploring policies for the reduction of child physical abuse and neglect. Child Abuse Negl. 2015;40:1–11.
- MacMillan HL, Wathen CN, Barlow J, Fergusson DM, Leventhal JM, Taussig HN. Interventions to prevent child maltreatment and associated impairment. Lancet. 2009;373(9659):250–66.
- 121. Substance use issues are worsening alongside access to care. https://www.kff.org/policy-watch/substance-use-issues-are-worsening-alongside-access-to-care/. Accessed 20 Jan 2022.
- 122. Ettman CK, Cohen GH, Abdalla SM, Sampson L, Trinquart L, Castrucci BC, et al. Persistent depressive symptoms during COVID-19: a national, population-representative, longitudinal study of US adults. Lancet Regional Health-Americas. 2022;5:100091.
- 123. Swedo E, Idaikkadar N, Leemis R, Dias T, Radhakrishnan L, Stein Z, et al. Trends in US emergency department visits related to suspected or confirmed child abuse and neglect among children and adolescents aged< 18 years before and during the COVID-19 pandemic—United States, January 2019–September 2020. Morb Mortal Wkly Rep. 2020;69(49):1841.</p>
- 124. Maassel NL, Asnes AG, Leventhal JM, Solomon DG. Hospital admissions for abusive head trauma at children's hospitals during COVID-19. Pediatrics. 2021;148:e2021050361.
- 125. Kaiser SV, Kornblith AE, Richardson T, Pantell MS, Fleegler EW, Fritz CQ, et al. Emergency visits and hospitalizations for child abuse during the COVID-19 pandemic. Pediatrics. 2021;147(4):e2020038489.