

Child Maltreatment and the Transition to Adult-Based Medical and Mental Health Care

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abstract

BACKGROUND: Child maltreatment is a public health problem with life-long health consequences for survivors. Each year, >29 000 adolescents leave foster care via emancipation without achieving family permanency. The previous 30 years of research has revealed the significant physical and mental health consequences of child maltreatment, yet health and well-being have not been a priority for the child welfare system.

OBJECTIVES: To describe the health outcomes of maltreated children and those in foster care and barriers to transitioning these adolescents to adult systems of care.

METHODS: We reviewed the literature about pediatric and adult health outcomes for maltreated children, barriers to transition, and recent efforts to improve health and well-being for this population.

RESULTS: The health of child and adult survivors of child maltreatment is poor. Both physical and mental health problems are significant, and many maltreated children have special health care needs. Barriers to care include medical, child welfare, and social issues. Although children often have complex medical problems, they infrequently have a medical home, their complex health care needs are poorly understood by the child welfare system that is responsible for them, and they lack the family supports that most young adults require for success. Recent federal legislation requires states and local child welfare agencies to assess and improve health and well-being for foster children.

CONCLUSIONS: Few successful transition data are available for maltreated children and those in foster care, but opportunities for improvement have been highlighted by recent federal legislation. *Pediatrics* 2011;127:139–145

Child maltreatment is a public health problem with lifelong health consequences for survivors.¹ Each year, ~2 million investigations of suspected child maltreatment are made by child-protective service agencies in the United States, and greater than 100 000 children are substantiated as victims of abuse or neglect.² These numbers reflect official investigations and underestimate the prevalence of the problem. Results of recent population-based research suggested that ~125 in 1000 American children are victims of maltreatment.³

Approximately 10% of children substantiated as victims of maltreatment require placement in foster care. These children represent 70% of the children in foster care. The remaining 30% are involved in the delinquency system or are in placement because of catastrophic medical disease or uncontrolled mental health problems. At any given time, more than half a million American children reside in foster care, and >800 000 children pass through the foster care system annually.² Adolescents represent ~20% of the foster care population, and each year, >29 000 adolescents leave foster care via emancipation without achieving permanency through reunification with their biological families, adoption, or guardianship.^{2,4} These young adults face extraordinary challenges as they attempt to navigate society while burdened with high rates of physical and mental health disease, inadequate education, economic insecurity, unemployment, and housing instability without the family and social structures available to most young adults.^{5–12}

THE HEALTH OF MALTREATED CHILDREN AND CHILDREN IN FOSTER CARE

Maltreated children, whether living at home or in foster care, have poor health, and despite decades of re-

search and concern by health and social service professionals, little progress has been made in improving services to address these health needs. The poor health of maltreated children results from associated high rates of poverty, prenatal and postnatal exposures (tobacco, lead, stress, allergens, etc), parental substance abuse and mental health disease, family violence, unintentional injuries, and the abuse and neglect the children suffered at home.¹³ Their poor health also reflects the historic inability of the child welfare, foster, and health care systems to adequately address the health needs of dependent children.¹⁴ The previous 30 years of research has revealed high rates of physical health problems in maltreated children. Much of this research has focused on children in foster care. The results of these studies suggest that children who enter foster care have received less routine health care than their peers; nearly all of them enter care with at least 1 physical health problem, and a majority of them enter with multiple health problems.^{6,14–22} These problems include growth abnormalities (both growth failure and obesity), lead poisoning, untreated vision and dental problems, infectious and atopic dermatitis, asthma, infectious diseases, and a range of chronic medical diseases. Young children have high rates of developmental delay, and many school-aged children receive special education services before their placement.^{15–18,22,23} When compared with children who require foster care placement, maltreated children who remain at home exhibit similarly high rates of physical, developmental, and mental health needs.¹³

Child maltreatment threatens the sexual health of adolescents. In addition to the direct physical and psychological conse-

quences of having been a victim of sexual abuse,²⁴ maltreated children have high rates of sexual risk behaviors including early initiation of sexual intercourse and early pregnancy.^{25–29} Adolescent girls with a history of foster care placement have reported earlier age at first intercourse and a greater number of lifetime partners compared with those in the general population.²⁹ Foster care is also associated with a higher risk of laboratory-confirmed sexually transmitted infections in both adolescent boys and girls.³⁰

Maltreated children and those in foster care have high rates of mental health and behavioral problems; estimates range from 50% to 80%.^{13,31,32} The prevalence of mental health conditions increases with age, along with the use of psychotropic medications.^{19,32} By the time adolescents reach the age of emancipation, rates of major depression and posttraumatic stress disorder are 2 to 3 times greater than in the general population.³² Other common diagnoses in this population include attention-deficit/hyperactivity disorder, conduct disorders, oppositional defiant disorder, and anxiety.³³ There is good evidence that for many children in foster care with psychiatric disease, mental health problems begin before entry into the foster care system.³² These high rates of mental health problems are related to the child's family environment, the maltreatment experienced, and the trauma of separation that defines being placed into foster care.³¹ Rates of psychiatric disease correlate with the number of types of maltreatment experienced by the child rather than the type of maltreatment experienced.^{32,34} Children in foster care require high rates of psychiatric services and account for high Medicaid expenditures for inpatient and ambulatory mental health services and psychotropic drugs.^{25,33,35–37}

THE IMPACT OF CHILD MALTREATMENT ON ADULT HEALTH

Adult health outcomes for maltreated children are poor, and there is accumulating evidence that early adverse childhood experiences are the origins of many adult diseases.^{38,39} Results of both retrospective and prospective studies published in recent years have identified strong associations between cumulative traumatic childhood events (such as maltreatment, family dysfunction, and social isolation) and adult physical and mental health disease.^{40,43} For example, children who have been maltreated or live in dysfunctional families have high rates of ischemic heart disease, liver disease, chronic obstructive pulmonary disease, autoimmune diseases, and sexually transmitted infections as adults.^{44–48} Child maltreatment is also associated with higher levels of health care utilization in adulthood.⁴⁹ Rates of mental health disorders and the use of psychotropic medications are likewise higher in adults who experienced maltreatment as children.^{34,42,50,51}

The causal biological pathway(s) for these observed associations is an area of emerging scientific investigation.³⁸ Existing evidence suggests that early childhood trauma (including abuse and neglect) activates stress-associated hormonal and neurochemical systems in the body that under normal circumstances are protective but become toxic with severe or persistent trauma.⁵² These systems alter the production of cortisol, adrenaline, and other hormones that regulate developing neural circuits involved in modulating stress responsiveness.⁵⁵ These changes can lead to structural and functional changes in the brain and other organs and suppression of immune responses that affect a person's ability to respond to future biological and environmental stress, which increases the risk of both phys-

ical and mental health disease later in life.^{52,54–57} The variability of health outcomes for adults who were maltreated as children is a reflection of epigenetic pathways that transform early adverse experiences into biological disease risk.^{58–60} These data highlight the need for early prevention of child maltreatment, the need for aggressive treatment for young maltreated children and families, and the challenges faced by adolescents and young adults who have experienced a lifetime of trauma and those who care for them.

BARRIERS TO IMPROVING HEALTH CARE FOR MALTREATED ADOLESCENTS AND YOUNG ADULTS

As a group, children and adolescents in foster care are children with special health care needs. Recent national data indicate that between 35% and 50% of children in the child welfare system have special health care needs, compared with <20% of the general population of American children.⁶³ Historically, however, children's health has not been a priority for the child welfare system.¹⁴ For example, a recent study revealed that fewer than half of child welfare agencies provide comprehensive physical, developmental, and mental health evaluations for children entering out-of-home care.⁶² Once in care, accessing quality health care services for children in foster care is difficult. Maltreated children and those in foster care are unlikely to have a medical home, and the health care system they need to navigate is complex and inefficient. As addresses change, insurance cards may not reach the children's foster homes and special-needs agencies may lose relationships with children who move to out-of-home care. Medical information is difficult to access for practitioners, complex care is poorly coordinated, reimbursement for medical and mental health services is low, legal consent issues often preclude obtaining

needed care, and there is a lack of accountability and funding for necessary services.^{19,63} Pediatricians and other health care providers are undereducated regarding the specific health care needs of adolescents in foster care.¹⁴ Providing care for children in foster care carries requirements for increased paperwork and the potential for involvement in court proceedings, which many pediatricians loathe. Health care delivery to children in foster care is often disrupted by changes in the child's placement, which results in an overreliance on emergency department care for this population of children.^{63–65}

Many of the barriers to the transition to adult care that exist for the general population also jeopardize the transition for maltreated children, including lack of shared planning among pediatric and adult systems, loss of case management (in this case, child welfare management), and loss of insurance coverage.⁶⁷ Most children in the child welfare system receive Medicaid coverage. In recent years, Congress has provided a mechanism to allow states to offer continued Medicaid coverage for adolescents and young adults as they leave foster care, but few states participate in the Medicaid option for emancipated older youth.^{9,68,69} Additional barriers arise from the Early Periodic Screening, Diagnostic, and Treatment (EPSDT)-related mandate to deliver a broad and nationally consistent set of services to Medicaid-eligible children without such a mandate for Medicaid-eligible adults (defined as ≥ 21 years of age). For example, the lack of EPSDT-mandated adult services affects mental health service delivery to young adults, because state eligibility criteria for mental health services are permitted to be more stringent in the adult mental health system than in the pediatric system, which affects the

ability of adolescents to continue services as they transition to adulthood.⁷⁰ In keeping with this discrepancy, there is ample documentation of discontinuity of mental health care services for young adults who transition out of foster care.^{71,72} These declines have been shown across the spectrum of mental health services, including outpatient, residential, school-based, and psychiatric hospitalizations, and in the use of psychotropic medications.^{69,73}

The barriers to providing quality medical care for adolescents emerging from foster care go well beyond simply those specific to the health care system. Young adults who are emancipated from the foster care system leave care with little education, poor finances, limited support from the child welfare system, and few personal adult resources.⁷⁴ Also, although demographic evidence has shown that in modern US society it is developmentally inappropriate to expect a young person to be independent by the age of 18, this is the age at which most adolescents in foster care leave the child welfare system.⁷⁵ Most adolescents in general society rely on their families for emotional, financial, and other supports well into adulthood, yet many adolescents who age out of foster care do so without the necessary connections to their parents, adult relatives, or other supportive adults who can help them transition to adulthood. It is ironic that they require more supports than most adolescents yet are least likely to have them.¹¹ The medical literature on transitioning children with special health care needs to adult systems of care highlights the challenges inherent in navigating from pediatric to adult health care systems, even for adolescents with supportive biological families.^{67,76,77} These challenges are much greater for those without these supports.

EMERGING STRATEGIES FOR HEALTH CARE TRANSITIONS FOR MALTREATED CHILDREN

There are multiple opportunities for pediatricians to work to improve the health outcomes of maltreated children. For individual children, pediatricians can provide a medical home for maltreated children to improve health outcomes in adulthood. The American Academy of Pediatrics has developed a number of resources to guide and support pediatricians who care for maltreated children and those in foster care.⁷⁸ All maltreated children require specialized care that begins with comprehensive initial assessments. The American Academy of Pediatrics recommends an initial health assessment within 72 hours of placement to identify immediate medical and mental health needs, followed by a comprehensive assessment within 30 days. These assessments must include developmental and mental health evaluations, because research has found that social workers, foster parents, and physicians lack the knowledge of and ability to address the behavioral, mental health, and developmental problems of this population of children. For example, Halfon et al¹⁷ noted that one-third of foster parents and social workers reported a history of emotional, developmental, or behavioral problems at an initial medical visit, yet assessments revealed these problems in more than two-thirds of the children. Horwitz et al⁶ found that although community physicians identified the medical and educational needs of children entering foster care, they failed to recognize the developmental and mental health needs of the children. Finally, dental health concerns should also be addressed, because abused and neglected children are less likely to have received needed dental treatment for oral disease.⁷⁹ Once assessed, maltreated children and children in foster

care require more frequent care and ongoing care coordination.⁸⁰

In reality, care coordination is challenging⁸¹ and, for this population, requires a high level of medical sophistication. Although for children in foster care, health care management is the legal responsibility of the state and child welfare agency, it cannot be accomplished without medical expertise. A number of health care management models exist, all of which use health care professionals who are responsible to foster care agencies for managing health care.⁶⁵ For example, a number of states have developed systems of health care management for children in foster care that employ pediatric nurses to serve as care coordinators for child welfare agencies.⁸² This is a promising model of care, because nurses understand child development and health issues, serve as effective liaisons between the medical and child welfare communities, and can provide medical guidance to caseworkers and foster and biological parents. The functions of care coordination include organizing and maintaining health information in a usable manner; ensuring that proper medical consents are available; coordinating health care services while monitoring and ensuring that children receive the services they need; coordinating care and communicating with the health care team, parents and foster parents, and child welfare workers; advocating for needed services for children; and ensuring that medical care is integrated into the overall child welfare plans for the child.⁶⁵ Although models of health care coordination vary in structure and scope, there is preliminary evidence that health care management within child welfare improves health-related access for children.⁸³

Recently enacted federal legislation has the potential to significantly expand the focus of child welfare agen-

cies to the safety, permanence, and well-being of children. The Fostering Connections to Success and Increasing Adoptions Act, enacted in 2008, represents the most significant federal child welfare reform in more than a decade. The legislation was designed to ensure greater permanence for children served by public child welfare agencies and provides federal support to states to extend foster care services for up to 3 years for some adolescents who turn 18 years of age without a permanent family. The legislation also requires that state child welfare and Medicaid agencies plan, in consultation with pediatricians and experts in child welfare services, for the oversight and coordination of health care services for children in foster care. The plans must outline schedules for initial and follow-up health screens; how the needs identified by the screens will be monitored and treated; how medical information will be shared; steps to ensure continuity of health care services; and oversight of prescription medicines.⁸⁶ The bill also requires states to make new efforts for the planning for the transition of older children leaving foster care for independent living and provides ongoing foster care support for 18- to 21-year-olds who remain in school or are employed. These provisions are among the first federal statutory requirements of child welfare agencies that focus specifically on the well-being of children in foster care, as opposed to their need for safety and permanence.⁸⁴

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There is emerging consensus that improved adult outcomes for maltreated and foster youth require this expansion of focus from safety and permanence to include health and well-being.

CONCLUSIONS

Pediatricians play an important role in supporting adolescents who have experienced maltreatment and/or foster care as they approach adulthood. Although the responsibility to the child is great, it is a shared responsibility between child welfare, health care providers, educators, and biological and foster families. Providing a medical home for adolescents requires an understanding of the health risks to this population and how to access necessary health and mental health services. Health needs identified during screening and other care should be monitored, treated, and addressed in the medical home according to standard Early Periodic Screening, Diagnostic, and Treatment requirements. Whether health care management is provided by the pediatric home or the child welfare agency, pediatricians should provide advocacy for the child's health and mental health needs. Pediatric care for adolescents needs to be comprehensive and include early and ongoing education for adolescents regarding their specific health care problems and medications as well as health services that address sexual health and family planning. Discussions with the adolescent about future education and adult goals should start

early, and those conversations should include the need to identify caring adult mentors who are committed to functioning in a parental capacity for the youth throughout life.^{11,85} Mentoring relationships are associated with improved adjustment for young adults who have transitioned out of foster care. This mentor may be a biological relative, foster parent, or nonrelated adult. Research has shown that adolescents in foster care who identify having a nonparental adult mentor are more likely to report favorable overall health and are less likely to report suicidal ideation, having had a sexually transmitted infection, or having been in a physical altercation.⁸⁶ Pediatricians can identify health professionals in their communities who are willing and interested in caring for young adults with social and health care challenges and can work to make personal connections for their aging adolescent patients. Pediatricians can advocate for improved reporting of successful medical and mental health transitions by child welfare agencies. Finally, the commitment to maltreated children includes a commitment to working outside of the health care community. As health advocates for this vulnerable population, physicians need to collaborate with child welfare, judicial, education, and mental health colleagues to advocate for the health and well-being of these children and provide support and direction to adolescents whose parents have not been able to assume that role.

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