

Meeting the Developmental, Behavioral, and Mental Health Needs of Children in Foster Care

Colleen E. Bennett, MD

M. Katherine Henry, MD, MSCE

Joanne N. Wood, MD, MSHP

Introduction

Children and adolescents in foster care face significantly increased risk of having developmental, behavioral, and mental health issues. Healthcare providers play a critical role in addressing the interplay of complex childhood trauma and toxic stress on the developmental, behavioral, and mental health of this vulnerable population.

Many children in foster care have complex trauma histories and are at risk for toxic stress. Toxic stress, defined as the “prolonged activation of the physiologic stress response systems in the absence of the buffering protection afforded by stable, responsive relationships,” significantly impacts early childhood development (Garner & Shonkoff, 2012, p. e225). Toxic stress can disrupt the developing architecture of the brain and adversely affect the development of adaptive capabilities and coping skills during early childhood (Garner & Shonkoff, 2012; Shonkoff & Garner, 2012). Research has associated exposure to complex trauma with increased risk for mental health disorders including Post Traumatic Stress Disorder (PTSD) (Greenson et al., 2011). Additionally, research has shown a dose-dependent effect of exposure to adverse and traumatic events during childhood on increased risk of mental health, substance use, sexual health, and physical health issues (Anda et al., 2006).

Given the risk of complex trauma and toxic stress among these children, it is critical that medical providers develop a comprehensive, trauma-informed approach for identifying and addressing their developmental, behavioral, and

mental health needs. The American Academy of Pediatrics (AAP) recommends that all children and adolescents entering the foster care system undergo a comprehensive evaluation that includes mental health and developmental assessments within 30 days of placement. The AAP also recommends that any child with a chronic medical problem, significant *developmental delays, mental or behavioral health problems* be evaluated within 24 hours of entry into foster care (Counsel on Foster Care et al., 2015; Szilagyi et al., 2015).

Developmental Delays in Children in Foster Care

Prevalence & Screening

Children in foster care are twice as likely to have learning disabilities, developmental delays, and speech problems compared to their peers not in foster care (Turney & Wildeman, 2016). A recent meta-analysis found that 39% of children less than 7 years of age in foster or kinship care have a developmental delay, with cognitive problems occurring in 23% and motor delays occurring in 16% (Vasileva & Petermann, 2016). Research has also shown that there is higher prevalence of foster care involvement for children with Autism Spectrum Disorder when compared with children with other intellectual disabilities or typically developing children (Cidav, Xie, & Mandell, 2017). These findings underscore the importance of comprehensive developmental assessment for children entering the foster care system to ensure both recognition of delays as well as appropriate referrals for developmental services. Multiple validated screening tools exist to screen for developmental delay in children. For example, standardized screening with the Ages and Stages Questionnaire was shown to increase detection of

developmental delay in children in foster care (Jee et al., 2010).

Barriers to Developmental Screening and Services

Despite both evidence that children in foster care are at high risk for developmental delays and the AAP recommendation for timely developmental assessment, there is both under-recognition of developmental delays and under-utilization of developmental services, especially for younger children (Zimmer & Panko, 2006). Barriers to recognition include lack of use of standardized assessment tools, lack of comprehensive assessment on entry into foster care, and lack of prioritization of developmental assessment (Leslie et al., 2005). Once needs are identified, there are obstacles to linkage with services. While federal legislation states that children under 36 months of age with substantiated cases of child abuse or neglect are automatically eligible for Early Intervention evaluation, this is not true for older children (Child Welfare Information Gateway, 2013). Other barriers to services include difficulty accessing services, lack of effective services, foster care placement instability, and issues with obtaining consent (Leslie et al., 2005; Molin & Palmer, 2005).

School System and Foster Care

The educational experience for many children in foster care is characterized by high rates of absenteeism, school changes, suspensions, dropouts, and below-average academic performance (Trout, Hagaman, Casey, Reid, & Epstein, 2008). Placement stability affects absenteeism such that youth with unstable placement were 37% more likely to be absent from school than those who achieved early placement stability (Zorc et al., 2013). Interestingly, children who reunified with caregivers also demonstrated higher rates of absenteeism (Zorc et al., 2013). Federal law now mandates that child welfare and educational agencies collaborate to maintain children in their school of origin if that school is in the child's best interest in order to minimize school disruption (U.S. Department of Education & U.S. Department of Health and Human Services, 2016).

Behavioral and Mental Health Conditions for Children in Foster Care

Prevalence & Screening

Children in foster care are disproportionately burdened by mental and behavioral health concerns (Turney & Wildeman, 2016). The most common concerns are oppositional defiant disorder, conduct disorder, reactive attachment disorder, adjustment disorders, and mood disorders (Steele & Buchi, 2008). Children in placement are three times as likely to have attention deficit disorder or attention hyperactive deficit disorder, five times as likely to have anxiety, six times as likely to have behavioral problems, and seven times as likely to have depression compared to children not in foster care (Turney & Wildeman, 2016). Adolescents in placement are four times more likely to have a history of suicide attempts and are more likely to have substance use disorders (Pilowsky & Wu, 2006). Approximately 61% of youths in the foster care system have had at least one psychiatric diagnosis during their lifetime, a majority of which had onset of the disorder prior to entering foster care (McMillen et al., 2005).

The mental health needs of these children can also be quantified through the lens of healthcare cost and resource utilization. Approximately 1 in 7 children entering foster care receive a psychotropic medication (Steele & Buchi, 2008). Additional studies have shown the disproportionately high cost of mental health service utilization for children in foster care, including increased mental health claims, mental health hospitalizations, and outpatient behavioral health services compared to peers not in care (Becker, Jordan, & Larsen, 2006; Harman, Childs, & Kelleher, 2000).

The AAP recommends comprehensive assessments for all children upon entry into foster care, including mental health evaluation. Multiple validated screening tools exist specifically for mental health and trauma, such as the Pediatric Symptom Checklist-17, UCLA PTSD Reaction Index, and the Child PTSD Symptom Scale (Murphy et al., 2016; Strand, Sarmiento, & Pasquale, 2005). Healthcare providers can also assess for symptoms of trauma on review of systems including sleep problems, changes in eating habits related to prior food insecurity, and issues with toileting (Forkey & Szilagyi, 2014).

Foster Care Placement Instability and Behavioral Health

There is a complex and cyclical association between foster care placement instability and behavioral health problems. Behavioral problems have been shown to predict

placement changes and placement instability has been associated with increased risk of behavioral and mental health problems (Aarons et al., 2010; Rubin, O'Reilly, Luan, & Localio, 2007). Sudden placement moves and multiple placements are associated with increased risk of mental health disorders (Hillen & Gafson, 2015). Additionally, multiple placements and episodic foster care placement are associated with increased risk of being a high mental health service user (Rubin et al., 2004).

Barriers to Behavioral and Mental Health Care

Despite a high need for mental health treatment, access to such services is limited, with young children having the least access (Aarons et al., 2010; Burns et al., 2004; Horwitz et al., 2012; Horwitz, Owens, & Simms, 2000; Leslie, Hurlburt, Landsverk, Barth, & Slymen, 2004; Pecora et al., 2005; Rosenkranz, 2006; Rubin et al., 2004). Among children with child welfare involvement, approximately three-quarters of children with concern for mental health needs had not been linked to mental health services (Burns et al., 2004). A multitude of barriers contribute to this finding, including limited access to trauma-informed mental health providers, difficulty obtaining consent for treatment, lack of identification of behavioral and mental health disorders, and limitations of use of the foster parent as a therapeutic agent (Burns et al., 2004; Leslie et al., 2005; Molin & Palmer, 2005).

Trauma-Informed Care

A critical aspect of addressing the mental and behavioral health needs of children in foster care is ensuring that care is provided in a trauma-informed environment, both in their foster care placement and in their medical home. Healthcare providers should be adept at providing care with a trauma-informed approach. This includes evaluating prior and current diagnoses and symptoms within the context of the child's trauma history. Providers should also counsel caregivers on the role of prior trauma and current behaviors and about positive parenting strategies to help the child heal. When needed, providers should make referrals to appropriate trauma-informed therapy. Evidence-based therapies that have been successfully utilized with foster families include Parent Child Psychotherapy and Trauma-Focused Cognitive Therapy (Forkey & Szilagyi, 2014).

Foster caregivers play an essential role in creating a

trauma-informed environment for children in their care, and research suggests that the quality of the relationship between the foster caregiver and the child impacts the child's behavioral health. Children with higher quality interactions with foster mother and higher commitment from foster mother (as exemplified by kinship care) had less externalizing and internalizing symptoms as well as higher levels of adjustment (Dubois-Comtois et al., 2015). Recent studies have shown positive outcomes with parenting programs for foster caregivers, including reduction in child behavior problems and caregiver tolerance of disruptive behavior (Bywater et al., 2011; Sullivan, Murray, & Ake, 2016). The following evidence-based parenting programs and therapies have demonstrated positive outcomes with foster families: Parent-Child Interactive Therapy, Keeping Foster and Kin Parents Supported and Trained, and Incredible Years (Buchanan, Chamberlain, Price, & Sprengelmeyer, 2013; Bywater et al., 2011; Forkey & Szilagyi, 2014; Price et al., 2008). There is evidence that wraparound services and relational interventions have shown effectiveness in reducing children's difficult behavior as well (Kinsey & Schlosser, 2013).

Future Research and Recommendations

Though substantial efforts have been made to investigate the developmental, behavioral, and mental health needs of children in foster care, significant challenges exist in meeting their needs. Future research and policies could establish clear and specific guidelines for screening for developmental and behavioral health problems.

About the Authors

Colleen E. Bennett, MD, is a fellow in Child Abuse Pediatrics at The Children's Hospital of Philadelphia.

M. Katherine Henry, MD, MSCE, is a fellow in Child Abuse Pediatrics at The Children's Hospital of Philadelphia.

Joanne N. Wood, MD, MSHP, is Research Director for Safe Place: The Center for Child Protection and Health at The Children's Hospital of Philadelphia (CHOP). She is also a faculty member at PolicyLab at CHOP and Assistant Professor of Pediatrics at the Perelman School of Medicine at the University of Pennsylvania.

Meeting the Developmental, Behavioral, and Mental Health Needs of Children in Foster Care

- Aarons, G. A., James, S., Monn, A. R., Raghavan, R., Wells, R. S., & Leslie, L. K. (2010). Behavior problems and placement change in a national child welfare sample: A prospective study. *Journal of the American Academy of Child and Adolescent Psychiatry, 49*(1), 70-80.
- Anda, R. F., Felitti, V. J., Bremner, J. D., Walker, J. D., Whitfield, C., Perry, B. D., . . . Giles, W. H. (2006). The enduring effects of abuse and related adverse experiences in childhood. A convergence of evidence from neurobiology and epidemiology. *European Archives of Psychiatry and Clinical Neuroscience, 256*(3), 174-186. doi:10.1007/s00406-005-0624-4
- Becker, M., Jordan, N., & Larsen, R. (2006). Behavioral health service use and costs among children in foster care. *Child Welfare, 85*(3), 633-647.
- Buchanan, R., Chamberlain, P., Price, J. M., & Sprenghelmeyer, P. (2013). Examining the equivalence of fidelity over two generations of KEEP implementation: A preliminary analysis. *Children and Youth Services Review, 35*(1), 188-193. doi:10.1016/j.childyouth.2012.10.002
- Burns, B. J., Phillips, S. D., Wagner, H. R., Barth, R. P., Kolko, D. J., Campbell, Y., & Landsverk, J. (2004). Mental health need and access to mental health services by youths involved with child welfare: a national survey. *Journal of the American Academy of Child and Adolescent Psychiatry, 43*(8), 960-970. doi:10.1097/01.chi.0000127590.95585.65
- Bywater, T., Hutchings, J., Linck, P., Whitaker, C., Daley, D., Yeo, S. T., & Edwards, R. T. (2011). Incredible Years parent training support for foster carers in Wales: A multi-centre feasibility study. *Child: Care Health Development, 37*(2), 233-243. doi:10.1111/j.1365-2214.2010.01155.x
- Child Welfare Information Gateway. (2013). Addressing the needs of young children in child welfare: Part C—Early intervention services. *U.S. Department of Health & Human Services*.
- Cidav, Z., Xie, M., & Mandell, D. S. (2017). Foster care involvement among Medicaid-enrolled children with autism. *Journal of Autism and Developmental Disorders*. doi:10.1007/s10803-017-3311-1
- Counsel on Foster Care, Adoption and Kinship Care, Committee on Adolescence, Counsel on Early Childhood. (2015). Health care issues for children and adolescents in foster care and kinship care. *Pediatrics, 136*(4), e1131-1140. doi:10.1542/peds.2015-2655
- Dubois-Comtois, K., Bernier, A., Tarabulsy, G. M., Cyr, C., St-Laurent, D., Lanctot, A. S., . . . Beliveau, M. J. (2015). Behavior problems of children in foster care: Associations with foster mothers' representations, commitment, and the quality of mother-child interaction. *Child Abuse & Neglect, 48*, 119-130. doi:10.1016/j.chiabu.2015.06.009
- Forkey, H., & Szilagyi, M. (2014). Foster care and healing from complex childhood trauma. *Pediatric Clinics of North America, 61*(5), 1059-1072. doi:10.1016/j.pcl.2014.06.015

References, cont.

- Garner, A. S., & Shonkoff, J. P. (2012). Early childhood adversity, toxic stress, and the role of the pediatrician: Translating developmental science into lifelong health. *Pediatrics*, *129*(1), e224-231. doi:10.1542/peds.2011-2662
- Greeson, J. K., Briggs, E. C., Kisiel, C. L., Layne, C. M., Ake, G. S., 3rd, Ko, S. J., . . . Fairbank, J. A. (2011). Complex trauma and mental health in children and adolescents placed in foster care: Findings from the National Child Traumatic Stress Network. *Child Welfare*, *90*(6), 91-108.
- Harman, J. S., Childs, G. E., & Kelleher, K. J. (2000). Mental health care utilization and expenditures by children in foster care. *Archives of Pediatrics & Adolescent Medicine*, *154*(11), 1114-1117.
- Hillen, T., & Gafson, L. (2015). Why good placements matter: Pre-placement and placement risk factors associated with mental health disorders in pre-school children in foster care. *Clinical Child Psychology and Psychiatry*, *20*(3), 486-499. doi:10.1177/1359104514530733
- Horwitz, S. M., Hurlburt, M. S., Goldhaber-Fiebert, J. D., Heneghan, A. M., Zhang, J., Rolls-Reutz, J., . . . Stein, R. E. K. (2012). Mental health services use by children investigated by child welfare agencies. *Pediatrics*, *130*(5), 861-869. doi:10.1542/peds.2012-1330
- Horwitz, S. M., Owens, P., & Simms, M. D. (2000). Specialized assessments for children in foster care. *Pediatrics*, *106*(1 Pt 1), 59-66.
- Jee, S. H., Szilagyi, M., Ovenshire, C., Norton, A., Conn, A. M., Blumkin, A., & Szilagyi, P. G. (2010). Improved detection of developmental delays among young children in foster care. *Pediatrics*, *125*(2), 282-289. doi:10.1542/peds.2009-0229
- Kinsey, D., & Schlosser, A. (2013). Interventions in foster and kinship care: a systematic review. *Clinical Child Psychology and Psychiatry*, *18*(3), 429-463. doi:10.1177/1359104512458204
- Leslie, L. K., Gordon, J. N., Lambros, K., Premji, K., Peoples, J., & Gist, K. (2005). Addressing the developmental and mental health needs of young children in foster care. *Journal of Developmental & Behavioral Pediatrics*, *26*(2), 140-151.
- Leslie, L. K., Hurlburt, M. S., Landsverk, J., Barth, R., & Slymen, D. J. (2004). Outpatient mental health services for children in foster care: A national perspective. *Child Abuse & Neglect*, *28*(6), 699-714. doi:10.1016/j.chiabu.2004.01.004
- McMillen, J. C., Zima, B. T., Scott, L. D., Jr., Auslander, W. F., Munson, M. R., Ollie, M. T., & Spitznagel, E. L. (2005). Prevalence of psychiatric disorders among older youths in the foster care system. *Journal of the American Academy of Child and Adolescent Psychiatry*, *44*(1), 88-95. doi:10.1097/01.chi.0000145806.24274.d2
- Molin, R., & Palmer, S. (2005). Consent and participation: Ethical issues in the treatment of children in out-of-home care. *American Journal of Orthopsychiatry*, *75*(1), 152-157. doi:10.1037/0002-9432.75.1.152
- Murphy, J. M., Bergmann, P., Chiang, C., Sturner, R., Howard, B., Abel, M. R., & Jellinek, M. (2016). The PSC-17: subscale scores, reliability, and factor structure in a new national sample. *Pediatrics*, *138*(3).

- Pecora, P. J., Kessler, R. C., Williams, J., O'Brien, K., Downs, A. C., English, D., White, J., Hiripi, E., White, C.R., Wiggins, T., & Holmes, K. (2005). Improving family foster care: findings from the northwest foster care alumni study. Retrieved from: <http://www.casey.org/northwest-alumni-study/>
- Pilowsky, D. J., & Wu, L. T. (2006). Psychiatric symptoms and substance use disorders in a nationally representative sample of American adolescents involved with foster care. *Journal of Adolescent Health, 38*(4), 351-358. doi:10.1016/j.jadohealth.2005.06.014
- Price, J. M., Chamberlain, P., Landsverk, J., Reid, J., Leve, L., & Laurent, H. (2008). Effects of a foster parent training intervention on placement changes of children in foster care. *Child Maltreatment, 13*(1), 64-75. doi:10.1177/1077559507310612
- Rosenkranz, B. (2006). Information packet: Mental health care issues for children and youth. In: National Resource Center for Family-Centered Practice and Permanency Planning at the Hunter College School of Social Work.
- Rubin, D. M., Alessandrini, E. A., Feudtner, C., Mandell, D. S., Localio, A. R., & Hadley, T. (2004). Placement stability and mental health costs for children in foster care. *Pediatrics, 113*(5), 1336-1341.
- Rubin, D. M., O'Reilly, A. L., Luan, X., & Localio, A. R. (2007). The impact of placement stability on behavioral well-being for children in foster care. *Pediatrics, 119*(2), 336-344. doi:10.1542/peds.2006-1995
- Shonkoff, J. P., & Garner, A. S. (2012). The lifelong effects of early childhood adversity and toxic stress. *Pediatrics, 129*(1), e232-246. doi:10.1542/peds.2011-2663
- Steele, J. S., & Buchi, K. F. (2008). Medical and mental health of children entering the Utah foster care system. *Pediatrics, 122*(3), e703-709. doi:10.1542/peds.2008-0360
- Strand, V. C., Sarmiento, T. L., & Pasquale, L. E. (2005). Assessment and screening tools for trauma in children and adolescents: A review. *Trauma, Violence, & Abuse, 6*(1), 55-78. doi:10.1177/1524838004272559
- Sullivan, K. M., Murray, K. J., & Ake, G. S., 3rd. (2016). Trauma-informed care for children in the child welfare system: An initial evaluation of a trauma-informed parenting workshop. *Child Maltreatment, 21*(2), 147-155. doi:10.1177/1077559515615961
- Szilagyi, M. A., Rosen, D. S., Rubin, D., Zlotnik, S., Council On Foster Care, Adoption, Kinship Care, . . . Council On Early Childhood. (2015). Health care issues for children and adolescents in foster care and kinship care. *Pediatrics, 136*(4), e1142-1166. doi:10.1542/peds.2015-2656
- Trout, A. L., Hagaman, J., Casey, K., Reid, R., & Epstein, M. H. (2008). The academic status of children and youth in out-of-home care: A review of the literature. *Children and Youth Services Review, 30*(9), 979-994. doi:https://doi.org/10.1016/j.childyouth.2007.11.019
- Turney, K., & Wildeman, C. (2016). Mental and physical health of children in foster care. *Pediatrics, 138*(5). doi:10.1542/peds.2016-1118

References, cont.

U.S. Department of Education and U.S. Department of Health and Human Services. (2016). Non-regulatory guidance: Ensuring educational stability for children in foster care. Retrieved from: <https://www2.ed.gov/policy/elsec/leg/essa/edhhsfostercarenonregulatorguide.pdf>

Vasileva, M., & Petermann, F. (2016). Attachment, development, and mental health in abused and neglected preschool children in foster care: A meta-analysis. *Trauma, Violence, & Abuse*. doi:10.1177/1524838016669503

Zimmer, M. H., & Panko, L. M. (2006). Developmental status and service use among children in the child welfare system: A national survey. *Archives of Pediatrics & Adolescent Medicine*, 160(2), 183-188. doi:10.1001/archpedi.160.2.183

Zorc, C. S., O'Reilly, A. L., Matone, M., Long, J., Watts, C. L., & Rubin, D. (2013). The relationship of placement experience to school absenteeism and changing schools in young, school-aged children in foster care. *Child Youth Services Review*, 35(5), 826-833. doi:10.1016/j.childyouth.2013.02.006

