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Literature Review

Special Health Care Needs

Research has linked maltreatment in childhood to serious physical and mental health problems throughout childhood and adulthood (Conn et al., 2013; Felitti et al., 1998; Flaherty et al., 2013; Herrenkohl, Hong, Klika, Herrenkohl, & Russo, 2013; Ringlesen, Casanueva, Urato, & Cross, 2008). Children in foster care have higher rates of chronic health problems compared to children not in the foster care system (Nelson et al., 2011; Ringelsen, Casanueva, Urato, & Cross, 2008; Simms, 1989; Sobel & Healy, 2001). An examination of the National Survey of Child and Adolescent Well-being found that 27.9% of children in foster care had at least one chronic illness including such conditions as asthma, severe allergies, eczema, and repeated ear infections (Ringelsen et al., 2008). This rate is almost double that of chronic illness in the general population of children across the United States, which is between 15% and 18% (Bethell, Read, Blumber, & Newacheck, 2007).

Additionally, many children in foster care are likely to be diagnosed with mental health problems (e.g., Sullivan & van Zyl, 2008). A medical claims review from two foster care clinics in one county in New York found that between 73% and 82% of children

in foster care were diagnosed with a mental health problem (Jee, 2010). The most common diagnoses for children in foster care are attachment disorders, depression, anxiety, and behavioral problems (Sobel & Healy, 2001). Finally, these children are also prescribed psychotropic medications at higher rates compared to their peers (e.g., Cohen, Lacasse, Duan, & Sengelmann, 2013; Raghavan et al., 2005; Steele & Buchi, 2008).

Developmental delays, not reaching developmental milestones at expected times, are more likely to occur within children in foster care compared to those children not in foster care (e.g., Gorski et al., 2002). The percentage of children in foster care that have developmental delays varies widely in the research, ranging from less than 5% to greater than 80% (Leslie et al., 2005; Jee et al., 2010; Steele & Buchi, 2008). Developmental delays can have lifelong effects on the wellbeing of children in foster care (e.g., Miller et al., 2000).

Oral health is critical to child well-being (Guarnizo-Herreno & Wehby, 2012) and research has linked it to academic problems in populations who suffer from dental issues (USDHHS, 2000; Schechter, 2000). Dental caries in young children have been associated with missing more school as well as having more significant health issues, and can be a focus of distraction from effective learning (Tinaoff & Reisine, 2009; Ramage, 2000). Children in foster care frequently have dental issues, with 20% of children entering foster care reported as having significant

dental issues (Szilagyi, Rosen, Rubin, & Zlotnik, 2015). The health and well-being of children in foster care can seriously impact their permanency (Becker, Jordan, & Larsen, 2007; Leslie et al., 2005; Oosterman, Schuengel, Wim Slot, Bullens, & Doreleijers, 2006; Rosenberg & Robinson, 2004). Medical problems and developmental delays are associated with higher numbers of placements, longer stays in foster care, and increased difficulty in achieving permanency (Becker et al., 2007; Rosenberg & Robinson, 2004). Behavioral problems exhibited by children in the foster care system have been shown in multiple studies to be associated with failed placements (Leslie et al., 2005; Oosterman et al., 2006). A mental health diagnosis has been found to have a negative effect on the permanency of children in foster care (Becker et al., 2007).

Legislation Regarding Health Care for Children in Foster Care

Federal legislation and the development of practice guidelines through the American Academy of Pediatrics (AAP) and the Child Welfare League of America (CWLA) have mandated the critical responsibility to address the health of children in the foster care system. In order to comply with section 422(b)(15)(A) of the Social Security Act, every 5 years each state must submit a proposal to the Administration of Children and Families (ACF) outlining a concrete plan to address the healthcare needs of children in foster care (Department of Health and Human Services, 2015). The proposals must include how the state plans on providing continuity of care for children in foster care, and how they will keep medical information up to date and share it among providers (Department of Health and Human Services, 2015). Along with meeting the requirements outlined in the Social Security Act, states are also required to address the emotional trauma and developmental health of each child entering foster care in accordance with the Fostering Connections to Success and Increasing Adoptions Act of 2008 and the Child and Family Services Improvement and Innovation Act of 2011 (Szilagyi et al., 2015). States are also required to plan for the treatment of mental health and dental health of children in foster care (American Academy of Pediatrics [AAP], n.d.).

Organizations such as the AAP and CWLA provide up-to-date guidelines on addressing the healthcare needs of children in the foster care system. These guidelines indicate the need for children in the foster care system to be connected to a medical home and to have health information easily accessible and sharable with members of the treatment team, ideally through an electronic record system (Kim et al., 2011). These guidelines also outline time schedules for routine medical care.

While policies and guidelines help dictate the standard of practice for addressing the healthcare needs of children in the foster care system, gaps still exist within the implementation and the policies themselves. According to a national survey, less than half (42.6%) of child welfare agencies had policies that provide physical, mental, and developmental health care for foster children, while a third of the agencies lacked policies to provide mental or developmental health care entirely (Leslie et al., 2003). The Inspector General of the United States reported that almost a third of children in foster care missed a required health screening and another third of children in foster care received their required exams late (Levinson, 2015). Clearly, medical care for children in the foster care system continues to be inadequate.

Barriers to Care

Many of the barriers that prevent children within the foster care system from obtaining quality medical care are systemic and pervasive. One barrier, which may result from children not receiving care through a medical home or primary care provider, is the lack of complete and comprehensive medical and health records. A survey of caregivers found that incomplete medical and placement histories are one of the primary causes of children receiving inadequate medical care (Greiner, Ross, Brown, Beal, & Sherman, 2015). With incomplete or missing health histories, many children receive discontinuous, uncoordinated medical care, which can lead to duplication of costly diagnostic and treatment services and difficultly adequately treating chronic illnesses and behavioral problems. Likewise, in the absence of a primary healthcare provider who knows a child's medical history and needs, it is unlikely that the child will receive preventative care in a consistent and meaningful manner.

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With the mounting research on the physical, emotional, and behavioral consequences stemming from early trauma and abuse, it is vital for medical providers to approach assessment and treatment planning from a trauma-informed lens. A traumainformed approach would take into consideration the role of toxic stress and what could be done to mitigate and prevent further exposure for the child (Garner et al., 2012). In addition, a traumainformed approach helps providers to look critically at presenting problems and to make distinctions between true physical, emotional, or behavioral conditions (e.g., ADHD) and physical, emotional, or behavioral manifestations of trauma. Unfortunately, not all medical providers are trained on the assessment and understanding of the impacts of trauma, specifically for children in foster care, leading some to diagnose and treat trauma symptoms as behavioral or mental health issues. This barrier to effective treatment for children in the foster care system could also contribute to the high rates of psychotropic medication observed in the literature.

Addressing the Barriers to Care

The use of a medical home is a standard of care for all children, and foster care professionals make efforts to provide this model of care for children in the foster care system (Syilagiyi et al., 2015). The medical home model provides a base for the delivery of ongoing health care for a child in foster care. At a medical home, healthcare professionals conduct initial and ongoing screening and assessment and treatment, and offer necessary referrals for specialized care. A medical home can either be a specific physical location or be a community network of medical professionals who work collaboratively to coordinate care for children in the foster care system. A medical home model can break down the systematic barriers that prevent children in foster care from obtaining comprehensive, quality health care by ensuring continuity of care, keeping health information current and providing staff that are trained in trauma-informed care.

Continuity of Care

Health care provided through the medical home model is continuous and consistent because of the communication of medical professionals within the network. Research shows that children who have a stable place to obtain medical care, like a medical home, are less likely to have unmet medical needs (DeVoe, Saultz, Krois, & Tillotson, 2009). Although the AAP recommends all children obtain care through medical homes, it is especially important for children in the foster care system (Council on Clinical Information Technology, 2011). Placement instability has long been recognized as a problem for many children in foster care, especially with regards to their healthcare needs. A study of youth entering foster care in San Diego found that on average, a child experienced four different placements in 2 years (Newton, Litrownik, & Landsverk, 2000). Within the medical home model, as long as a child is placed within the catchment area of the medical home, the child's health care remains consistent through the time in foster care. In the case that a child leaves the area in which the medical home is located, the staff at the medical home can facilitate the transition of medical records to a new practice or clinic to ensure that the child receives uninterrupted health care.

Up-to-Date Medical History

Many medical homes rely on the medical passport as a way to manage health records. The medical passport seeks to provide an up-to-date digital file with all of the medical information that travels with the child throughout the time in foster care. Each time a child in foster care seeks medical care, the medical home team updates the file. This digital medical chart is available to any medical professional a child goes to for treatment, promoting more continuous and coordinated health care. There are many commercial programs used by foster care clinics and child welfare agencies to administer the medical passport, such as Epic and eClinicalWorks (AAP, 2016).

Specialized Training

Another benefit of providing children in foster care with care through a medical home is the better access to specialists that a medical home provides. In most medical homes, primary care doctors work closely with specialists (e.g., pediatric cardiologist, occupational therapist, behavioral health specialist) to ensure that children receive targeted and timely care. Specialists are either on site or available through

referral. It is essential for children in foster care to have easy access to specialists because of their higher rates of chronic illness, developmental delays, and behavioral problems, which could be effectively managed with the help of specialists.

Within the medical home model, not only do children have access to specialized providers, but also these specialists often have training and expertise in working with children who have experienced significant trauma. The providers are trauma-informed (Fratto, 2016). They are also aware of contextual factors associated with foster care, such as type and severity of abuse, which could have an impact on a child's health and treatment. The greatest strength to specialized training is that trained medical professionals are aware and sensitive to the frequency and type of trauma that children in foster care may have been exposed to, and they are prepared to respond appropriately with trauma-informed interventions (Garner et al., 2012).

Discussion

Children in foster care present with complex physical, dental, emotional, and behavioral health needs. While recognized by and addressed through federal mandates and guidelines from the AAP and CWLA, meeting the health needs of children in the foster care system remains a challenge. Trauma-informed coordinated care, often through the use of a medical home, can help create a safety net for children to ensure that they receive proper assessments, treatments, and referrals for specialized services in an efficient and timely manner. The model, however, is not without limitations. There are significant costs associated with the development and maintenance of a medical home (e.g., medical passport), making this strategy less than achievable for clinics without substantial financial resources. The medical home also requires large amounts of social capital (e.g., time, commitment, collaboration) on the part of busy professionals (e.g., doctors, nurses, social workers).

While many national programs exist to meet the health needs of children in the foster care system (see AAP list), there remains a paucity of research documenting whether these programs have a measurable effect on helping to solve physical, dental,

emotional, and behavioral health problems. Much of the research is descriptive in nature, documenting the health needs of children in the foster care system or examining service utilization of children in the foster care system along with the costs of providing these services. These studies are essential in helping to advocate for the need for specialized care and treatment; however, the field is left wondering if the efforts are truly effective, and whether specific populations within the foster care system (e.g., infants, youth aging out, LGBTQ youth, children of color) are adequately served.

A trauma-informed system recognizes that no two children entering the foster care system will present with identical needs that can be easily addressed with a manualized approach to treatment. Instead, programs must remain flexible and take into account unique aspects of each case as assessment, treatment, and referrals for specialized care make traditional quantitative evaluation challenging.

This population needs continued research to refine models of care and demonstrate positive outcomes, especially given how heterogeneous both the foster care population and the healthcare systems providing that care may be. Variable focused, quantitative approaches to data analysis may not be able to adequately detect divergent ways in which a program addresses the health needs of a child. Person-focused approaches (e.g., latent class analysis) may assist researchers in identifying clusters of children who navigate their medical care in unique ways. Evaluation of these types of programs likely requires mixed methods approaches whereby qualitative analyses can help provide deeper, more nuanced understanding of program impacts from the various perspectives (children, foster care providers, healthcare providers, and child protection workers).

Finally, study of long-term effectiveness is needed. One approach would be to examine healthcare utilization through programs such as Medicaid using longitudinal research design. As data becomes more available and integration of data systems becomes standard, these types of research efforts will inform practice and improve outcomes, including cost outcomes, which would provide a useful tool for advocacy and sustainability.

Conclusion

In an ideal world, no child would ever experience abuse, neglect, or the many other forms of trauma that negatively impact psychosocial development. Unfortunately, too many children each year are victims of maltreatment and trauma. For those who enter the foster care system, the medical home model provides a platform for addressing the current healthcare needs of these children. As the field seeks practice innovations for addressing the healthcare needs of children in the foster care system, rigorous evaluations are necessary to understand whether the significant investments of person and financial resources are leading to improved well-being, safety, and permanency for these children.

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