A Systematic Evidence Based Literature Review of Medical and Developmental Issues of International Adoptees with Emphasis on the Need for Immediate and Thorough Medical Attention Post-Adoption

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Abstract. Over the years, the rate of international adoptions in the United States has increased and continues to steadily rise. A large percentage of these adoptions are from orphanages that are poverty-stricken, with limited food and a high orphan-to-caregiver ratio. These conditions can lead to medical and developmental issues such as malnutrition, failure-to-thrive, infectious disease, developmental delays, and behavioral disorders. Currently, guidelines for the most cost-effective and suitable approaches to medical evaluation of international adoptees has not been determined, but evidence suggests that guidelines regarding medical intervention for this specific population should be developed and utilized. The purpose of this study is to identify common medical and developmental issues of the internationally adopted and to recognize the necessity for immediate medical attention post-adoption. This is an evidence based literature review with regard to studies of medical and developmental issues seen in children adopted internationally. As the rate of international adoption continues to grow, so does the probability of caring for an adopted child in a primary care setting. The medical status of internationally adopted children makes them one of the highest risk pediatric groups in the United States. Evidence shows that there is need for immediate and thorough medical attention post-adoption.

1. Introduction

Over the years, the rate of international adoptions in the United States has increased from 7,000 in 1990 to almost 23,000 in 2004, and the numbers of these adopted children continue to steadily rise. The top three countries that participate in international adoption are China, Russia, and Korea.[1] A large percentage of these adoptions are from orphanages that tend to be poverty-stricken, which can sometimes lead to shortage of nutritional food and a high orphan-to-caregiver ratio which inevitably causes neglect. These conditions then, in turn, lead to medical and developmental issues of internationally adopted orphans such as malnutrition, failure to thrive (FTT)-including low weight, height, and head circumference, and infectious disease[2]. Developmental delays, including, but not limited to, gross motor skills, fine motor skills, and language and social development are also rampant in this group of children [3,4]. Behavior problems may also arise in internationally adopted children post-adoption including sensory behaviors and autistic-like behaviors [5]. Currently, guidelines for the most cost-effective approaches to medical evaluation of international adoption has not been determined, but evidence suggests that there should be some sort of unique medical intervention for this specific population including a physical exam, screening tests, immunizations, developmental testing, and re-evaluation of previously diagnosed conditions [6].

2. Experiment, Results, Discussion, and Significance

Preliminary findings of the literature review suggest that there are common health issues among internationally adopted children, with the most prevalent concern being developmental delay. Miller [2] identified numerous findings of growth and developmental delays. 75% of the children had significant developmental delays, including gross motor delay (55%), fine motor delay (49%), cognitive delay (32%), language delay (43%), social-emotional delay (28%), restrictions of activities of daily living (30%), and global delays (44%). Z scores of <-2 were found in 39% of children for height, 24% for head circumference, and 18% of weight. It was also discovered that the length of orphanage confinement was inversely proportional to the linear height lag, with a loss of 1 month of height age
for every 2.86 months in the orphanage. Another study was done on developmental and nutritional status of internationally adopted children that attended the International Adoption Clinic at the Floating Hospital for Children. The children underwent medical examination, measurements, and developmental assessments. Of these children 50% were developmentally delayed based on standards of the World Health Organization (WHO) for weight, height, and head circumference, with the severity of the delays directly relating to scores for height, weight, and head circumference[5]. Another issue addressed was the immunization record of internationally adopted children. A retrospective cohort study was done on internationally adopted children from 16 countries to determine whether or not the vaccinations were meeting Centers for Disease Control (CDC) recommendations. 65% of all children evaluated had no records of overseas immunizations. Of the 35% that did, 6% were considered invalid. Furthermore, only 67% of children with valid records were up-to-date on one or more vaccination according to the CDC schedule. There is also ongoing research being done on screening tests of children adopted from foreign countries[7]. Further research found a study that performed seven common screening tests, along with a thorough history and physical examination on internationally adopted children after arrival to the United States. 63% of the children were initially found to be normal after examination by their pediatrician or family physician. After an appropriate history, physical examination, and screening, 63% were found to have unsuspected medical diagnoses. When the children that were found to be normal after examination by their pediatrician or family doctor were only included in the study, the incident of unsuspected medical diagnoses remained relatively high (67%)[8].

3. Conclusions

In conclusion, as the rate of international adoption continues to increase, the probability of caring for an adopted child in a primary care practice increases. Medical and developmental status of international adoptees makes them one of the most high-risk pediatric groups in America. It has been estimated that up to 75% of internationally adopted children will have some sort of developmental delay, and up to 67% have been found to have unsuspected infectious disease and other medical problems that could have been diagnosed and appropriately treated had there been proper conduction of medical intervention. Use of clinical guidelines such as those developed by Hostetter et al [8] can significantly improve the early identification of medical problems within this population. Early identification allows for prompt management and referral and subsequently will improve the quality of life for these children.

4. Acknowledgements

I would like to thank my advisor, David Day, along with my sister, Lori Fleming, for their patience, direction, knowledge, and insight that made it possible for me to complete this project.