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International Adoption and Language Development

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INTERNATIONAL ADOPTION AND LANGUAGE DEVELOPMENT

by

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A Research Paper

Submitted in Partial Fulfillment of the Requirements for the
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International adoption poses interesting challenges in the world of speech and language acquisition. Children born into one culture and adopted into another undergo a very unique language learning process different from any other. Unlike bilingual language learners, international adoptees do not retain their birth, or first language (L1) as a second language. Instead, development is completely halted because adoptive parents rarely maintain the native language. The common phrase “use it or lose it” can be applied quite directly to this population. In addition, children are also expected to be submerged into a new or second language (L2), English (for the purpose of this paper), and reach the same milestones as monolingual peers. A multitude of obstacles can prevent an adoptee from reaching these language goals. Institutionalization before adoption can have serious effects on children’s physical and cognitive development. In addition, post adoption attachment disorders and health issues can result in serious setbacks. These factors present speech-language pathologists (SLPs) with the challenge of determining if children’s language is delayed or disordered or if they are simply experiencing normal language development later than a typically developing peer.

Nearly 60% of internationally adopted children are reported to be referred for services from SLPs (Mcacham, 2006). Despite the high rate of referred children, the prevalence of speech and language disorders in this population is relatively unknown (Glennen, 2002). Because these children are not following the typical development of a monolingual learner, or that of a bilingual learner,

standardized testing designed for either of these populations is not an accurate representation of language abilities. The pattern of language acquisition in internationally adopted children is often referred to as a *second first language acquisition* because the first language becomes completely obsolete as English is learned (Scott et al., 2011). Children introduced to L2 before L1 is mastered will present with disordered speech in both languages (Glennen, 2002). This can continue for several years until the L2 dominates, is mastered, and converted into the L1.

This inefficiency in both languages will likely cause confusion for both the parents, and eventually the school, once the child enters an educational institution. Initially, parents will observe their adopted child as completely monolingual in the birth language and slowly learn English (Gindis, 2005). Children adopted younger than age three will lose their expressive L1 skills within three months and the receptive L1 skills by six months (Gindis, 2005; Glennen, 2008). Before school age, parents will see their child learning English slowly, as an infant would, by making similar milestones such as babbling with accurate prosody (Gindis, 2005). Once enrolled in school, special education services may promote healthy language development.

Predicting language development outcomes for international adoptees has led to extensive research as this population experiences a uniquely isolated language dilemma. These children can be placed in neither the bilingual language learner category nor the monolingual language learner category (Scott et al., 2011). Exposure to one language early in life and a new language upon

adoption prevents any existing acquisition pattern from applying. In attempts to predict the success of English mastery, researchers have focused on several key factors that influence language development in international adoptees.

Age of Adoption

Age of adoption is a critical key in determining risk for language delay. The earlier the adoption takes place, the better chance the child will have to match milestones of monolingual peers of the same age (Jacobs, et al., 2010). Exposure to English before 12 months of age can result in minimal delays according to Mcacham (2006). Older children may experience significantly greater struggles in language learning, but development outcome studies have been mixed (Scott et al., 2011). Pre-school aged children use language for everyday needs at home with the caregiver, but as they reach school age, language demands increase. Internationally adopted children may have difficulty keeping up despite average conversational skills. It is believed by some researchers that children completely catch up with their non-adopted, monolingual peers within 3-4 years if adopted over the age of one year and living in a language nutritious environment (Mcacham, 2006).

A 2009 longitudinal study conducted by Decker and Omori (2009) examined the effect of age of adoption on success in adulthood. The study compared individuals in their late 30's who were adopted at either age 0, between ages 1 and 5, or age 6 or above. The focus areas were income, depression, number of divorces, home ownership, and education. When the three groups were examined, no statistical difference was present for income,

depression, or number of divorces (Decker & Omori, 2009). The greatest discrepancy was in education. Individuals adopted below the age of 5 had an average high school graduation rate of 84% while individuals adopted age 6 or above had an average of 60%. The discrepancy continued into college education rates. Only 6.7% of individuals adopted at age 6 obtained an education higher than a high school diploma while 22% of individuals adopted between 0 and 5 earned a higher education (Decker & Omori, 2009). This difference can be attributed to a variety of variables including parental support or unknown genetic influences, however, researchers suggest that poor pre-adoption environments resulting in less than desirable cognitive development may be the most critical factor. Additionally, children adopted at older ages have a greater risk for emotional and behavioral problems which can influence educational attainment (Decker & Omori, 2009).

Language Development

Attrition and Acquisition

As infants, before even six months of age, a typically developing child can recognize natural prosody of the mother's language and even discriminate native language against others (Cole, 2002). By eight months, babies babble and mimic sounds from their language and continue to follow typical developmental milestones. Research has shown that the majority of international adoptions take place between the child's first and fourth year of life, a critical time for language maturity (Mcacham, 2006). Language growth is extraordinary within the first few years, but mastery is still elusive for monolingual children. Upon extraction from a

birth language (L1) environment and submersion into a new language (L2), the adopted child goes through a stage of semi-lingualism- the failure to develop full proficiency in both languages (Hyltenstam, Bylund, Abrahamsson, & Park, 2009). This results in inefficiency in all symbolic oral communication, many times requiring services from an SLP to help effectively develop the new language.

Before mastering English, international adoptees have provided researchers with what has now become a loose guideline in L1 attrition (Gindis, 2005). Literacy skills are the primary language skill to disappear first, that is, if the child is old enough to read his birth language at the time of adoption. This skill has been observed to vanish within one month of adoption (Gindis, 2005). Because phoneme recognition and other phonological processes required for reading are just developing and depend on repetition and reinforcement, it is clear why these skills are the first to vanish. Expressive language disappears next and attrition is evident by three months post adoption. Receptive language is the last to go and will be lost completely within six months of adoption (Glennen, 2008). Within expressive language, certain elements deteriorate before others. L1 intonation patterns, prosody, and pronunciation of sounds disappear first, followed by grammatical rules and syntax. Often times, single vocabulary words remain in a child's lexicon for much longer such as curse words or uncommon words and expressions. However, when the English word equivalents are learned, the child's L1 word or expression is eliminated (Gindis, 2005).

Learning two languages can be a complex task for anyone. During attrition of the L1 and acquisition of the L2, the two languages can feed off one another (Glennen, 2008; Cole, 2002). If the languages have similar features, the first language can assist positively in learning the second. Similar syntactic sequences and prosody can carry over for supplemental reference. For example, English and Spanish have many similar prosodic and phonemic features in addition to many cognates (words that are the same in both languages. For example the word *animal* means the same in both Spanish and English). A Spanish speaker can use prosodic cues from the Spanish language and carry it over into English. When the languages are strikingly different, interference errors can occur which can inadvertently disrupt the learning process. The Chinese languages exemplify this because instead of using pitch and prosody to contribute to emotional significance, they are used to differentiate phonemes and words from one another. Because infants can recognize the differences in native and second languages, all children are susceptible to interference in both negative and positive ways (Glennen, 2002). Due to these influences, a speech-language pathologist must consider an internationally adopted child's birth language when predicting milestones for English language learning.

There is another model of language learning applied to English language learners who have been internationally adopted. It is the "additive or subtractive" model (Gindis, 2004). According to this model, the English language learning children will learn in one of two ways. The first is the additive model where the child learns the L2 without any detracting from the L1. Children who are adopted

by parents who speak their native language as well as English benefit from this type of learning. However, this is rare, especially in the United States. The second model, called the subtractive model, is much more common. This model presents internationally adopted children as “circumstantial learners”, meaning they must learn English for survival while use of the birth language is no longer practical. The subtractive model is when the L1 development is completely interrupted and eventually diminishes and becomes completely replaced by English (Gindis, 2004).

Regression

Due to the urgency and emotional intensity involved to communicate in the new language, internationally adopted children exhibit a phenomenal ability to acquire English. In contrast, the native language is lost at twice the speed. As previously stated, it is estimated that without any practice or exposure to the native language, a toddler or young child will lose most expressive language within three months (Gindis, 2005). Language in general is a functional tool used to express needs and wants. When loss of functional language skills in the L1 is evident before the acquisition of functional English language skills, children have a tendency to become frustrated by an inability to communicate effectively. As a result, inappropriate, immature, or regressive behaviors may present themselves in these children (Gindis, 2004).

During rapid language attrition, the internationally adopted child may exhibit little or no transfer of skill from one language to the next. According to Gindis’s (2005) research focusing on children adopted over the age of four,

regression can present itself through behavior, communication, and cognition. Behavioral regression can be exemplified through immature reactions for the child's age group such as a four year old behaving as a two year old, particularly in a disciplinary event. These behaviors can possibly stem from communication regression. This is evident when a verbal child reverts to pre-linguistic language and begins using gestures or un-differentiated sounds that are unintelligible in either L1 or L2. Lastly, mental skills learned at young ages such as patterning and sequencing can sometimes vanish (Gindis, 2005). Because these regressions often leave permanent results, older internationally adopted children will need to begin relearning not only language skills, but skills mediated by language as well.

Institutionalization

Living conditions prior to adoption can play a serious role in language development and delay. If born healthy, all children's learning abilities fall along a normal curve; some have higher potential than others. Healthy nutrition and a stable, supportive environment will encourage proper language development for most children. When placed into an orphanage, children become deprived of these elements and the potential for successful learning gradually decreases. Shapiro et al. (2001) stated that age-related needs for individual attention, nutrition, safety, medical care, and stimulation are rarely met for the institutionalized child. This decrease becomes a concern for the SLP attempting to assess internationally adopted children. Each child will respond differently to

physical and educational neglect, therefore every individual case can exhibit different results.

Care

Proper care and nurturing are critical for typical language development. Unfortunately, orphanages generally do not provide the best environment for this development to occur. According to Glennen (2003), continuous research on the correlation between institutionalization and language delay has concluded that orphanage care results in varying degrees of developmental delays, particularly in language. It has been observed that children as old as 3 and 4 years use limited vocabulary and unintelligible speech. This delay can be directly attributed to lack of stimulation by orphanage caregivers (Glennen, 2003).

Glennen (2003) noted that despite provision of basic needs and a loving demeanor towards children in general, orphanage caregivers are not ideal language partners. In observations done by Glennen in overseas institutions, several “language teaching” opportunities were missed even in the best of orphanages. A low child-to-caregiver ratio is of course desirable, but even more ideal is having the same caregiver(s) throughout the day; this is extremely rare in orphanages because staff members usually rotate on a daily basis. A child may see at least 3 caregivers throughout the day between the day, evening, and overnight shifts. Staff members also tend to use simple commands with the children such as “sit down” or “come here”. Expanded language by caregivers is rare and not a top priority in a room full of children. It was also observed that

small children were picked up and carried facing out, limiting interactions and nonverbal bonding between children and caregivers (Glennen, 2003).

Children learn language not just from adults, but from peers as well. Older children can be language models for younger children, but many orphanages divide children into groups based on age. This division prevents any language nutritious interaction between children. Mealtimes provide a potential arena for communication between children and caregivers or between peers. However, Glennen (2003) observed that many times toddlers who were able to eat independently received no adult interaction during meal time and often ate in silence. Children requiring assistance were fed by caregivers, but caregivers spoke mainly to each other and rarely to the children.

Play-based learning is also an important aspect of language development. In an orphanage setting, much of the day is dedicated to play. While children in a home setting have a variety of educational and play toys, the institutionalized child has access to few toys. Glennen (2003) stated that in the best orphanage observed, the children played with basic rattles and blocks. More complex toys that aid in language learning or other kinds of development were limited due to the staff's inability to monitor the safety of all children at play time. Time outside the facility was also limited. Children had access to a small outside playground, but trips out of the compound were nonexistent. Opportunities to learn through play and observation or through interaction and communication were greatly decreased by caregivers. Glennen (2003) observed however, that despite lack of verbal communication skills, many of the children maintained good non-verbal

social skills such as eye contact, smiling, pointing and an interest in sharing with adults.

Stress

Life in an orphanage is a stressful experience for young children regardless of level of care. Lack of nutrition and nurturing can cause a serious setback. Stress from institutional environments can cause physical changes to the brain, which is why length of stay and level of care in an institution are significant factors in potential for learning (Glennen, 2008). To counteract stress, the brain produces a chemical called cortisol. In a prolonged highly stressful environment, the brain will overproduce cortisol, creating glucocorticoids. Glucocorticoids can adversely affect multiple areas of the brain including the hippocampus, frontal lobe, cingulate gyrus, and amygdala. The functions of these areas range from memory retrieval and attention to abstract thinking and emotional processing (Gunnar & Quevedo, 2007). Language development, as well as social-emotional development, can be both directly and indirectly related to physical changes in these areas.

Studies indicate that these physical changes are not necessarily permanent. Neurobiological reactions are dependent on environmental stressors (Gunnar & Quevedo, 2007). Additionally, evidence suggests that poor care in institutionalized environments can affect endocrine function as well. Malfunction can result in early or late onset of puberty, although more research is needed in this area to determine a direct correlation (Shapiro, et al., 2001). Therefore, removal from a highly stressful environment such as an orphanage into a

nurturing environment can have positive effects on brain function and ultimately on language learning.

Health

Increased stress from institutionalization is detrimental for language development of internationally adopted children, but in addition to mental ramifications, physical health during and after time in an orphanage plays a serious role as well. Roughly half of all internationally adopted children receive treatment for basic pediatric ailments within one month of arrival to the United States (Smit, 2010). A study examining the health of children institutionalized in China after adoption into the United States was conducted to investigate this issue (Miller & Hendrie, 2000). Over 452 institutionalized children were examined for this study. It is noteworthy to mention that out of the 452 abandoned children, only nine were boys. This is due to the strong preference for sons by Chinese parents because of governmental incentives for a 1-child family (Miller & Hendrie, 2000). All children, ranging in ages 0:2 through 12:4 received a comprehensive medical exam and developmental testing within two to five months of arrival to the United States. Children in the clinic group were examined by researchers in the international adoption clinic where this study was conducted. Adoptive parents and physicians of children in the travel group responded to questionnaires via standard mail (Miller & Hendrie, 2000). Medical examinations included blood work for identification of infectious diseases such as hepatitis, syphilis, HIV/AIDS, tuberculosis, and intestinal parasites. Chest radiographs, urine analysis and lead testing were also conducted. Other medical diagnoses

were made among children in both groups (i.e. hearing loss, congenital heart defects, cleft lip or palate, and febrile seizures), but each was calculated to be present in less than 1% of the sample. Elevated lead levels were detected in 14% of the total sample, making it the most prevalent health concern among all the children. Developmental assessments tested gross and fine motor skills, cognition, language, and social-emotional development. All testing was conducted by certified professionals and pediatricians (Hendrie & Miller, 2000).

Throughout the study, consistency among several factors presented an issue. Primarily, assigned level of development varied tremendously across cultures (Hendrie & Miller, 2000). Chinese orphanages designated children without obvious birth defects as normal and children born with visible birth defects were designated as special needs children. This became problematic when adoptive parents seeking a healthy child were provided a child with a special need. Some of the children deemed “normal” were later diagnosed with a range of problems including congenital heart disease, hip dislocations, severe developmental delay, and microcephaly (Hendrie & Miller, 2000).

Birth dates were another major inconsistency. The majority of children cared for in orphanages were abandoned in public places such as police stations, hospitals, or at the orphanage itself. Very few were left with a note or paperwork indicating date of birth. Assignment of age based on estimation by orphanage staff was the only age researchers and adoptive parents in this study were provided. The pediatricians and other certified professionals working with the children post adoption noted that generally, the age assigned to each child

was adequate based on dental exams, weight and height. However it was estimated that 1 month of height age was lost for every 2.86 months in an orphanage (Hendrie & Miller 2000; Glennen 2003). After the study, 2 children had age reassignments (Hendrie & Miller, 2000).

According to Hendrie and Miller (2000), the children in this study present similar developmental patterns as children adopted internationally from other countries with the exception of elevated lead levels. This can likely be attributed to China's use of leaded gasoline and rice fields growing alongside roads. Overall, researchers were pleasantly surprised by the general health of Chinese adoptees, though that is not to say the children were in outstanding health. It is important to note that only the "healthiest" children are selected for adoption, leaving the health of majority of institutionalized children unknown. This study sheds light on the health of children before adoption and it is hypothesized by Hendrie and Miller (2000) that these conditions are probable for institutionalized children anywhere.

Age of Testing

A study done by Sharon Glennen (2007), a forerunner in international adoption research at Towson University in Towson, MD, attempted to predict language outcomes for internationally adopted children. Because measures rooted in standard American English cannot accurately evaluate the language of an internationally adopted child, Glennen tries to "determine if [normative] assessments completed when toddlers were first adopted could predict language outcomes at age 2" (Glennen, 2007). Children adopted from Eastern Europe

between the ages of 11 and 23 months were recruited for the study and followed throughout the first year home. Assessments were performed on the children 2.5 months after adoption and again after 12 to 21 months of full submersion into the English language. Initial measures included a battery of standardized English language measurements including the Communication and Symbolic Behavior Skills-Developmental Profile (CSBS-DP), the MacArthur Communicative Development Inventory-Words and Gestures (MCDI-WG) and a middle ear assessment. Two-year-old assessments included the Preschool Language Scale (PLS) and the Goldman Fristoe Test of Articulation-2 (GFTA-2) (Glennen, 2007).

After initial assessments, researchers used liberal guidelines and local norms (comparing the children against the other internationally adopted children) to create an “at-risk” category to differentiate the children who were predicted to develop well from the children who were predicted as at risk for slow language development. Based on these rough guidelines 25% of the children were recommended for services, 7% for a follow-up assessment, and 68% were predicted to develop normally (Glennen, 2007). Later, the two-year-old assessments conducted revealed that 78% of the internationally adopted children “passed all standardized tests, and were above the slow language development criteria for other measures” (Glennen, 2007). However, children who had been exposed to English for a longer period of time scored higher and children with less exposure time scored lower. It can be predicted that the children with the least exposure time will acquire the same high scores after maximum exposure to English.

Overall, articulation, expressive and receptive language, and expressive and receptive vocabulary of the English language increased significantly between assessments for all children who participated in the study. The two-year-old assessment revealed that 78% of the children at age 2 scored average or above average when compared against the norms for monolingual children while the other 22% remained below average. Children who performed poorly on the initial assessments and were roughly determined as “at-risk” were the same ones whose scores remained below average at the two-year-old assessments. The initial estimated percentages for those recommended for services (32%) and those predicted to develop well (68%) roughly correlate to the percentages of children above and below average scores after the second assessment. These results suggest that assessments designed to measure ability in standard American English can be used to predict language outcomes for internationally adopted children (Glennen, 2007).

The Glennen study is a solid foundation for continued research in the area of language acquisition of internationally adopted children. If language outcomes can be predicted by using English assessment methods, then SLPs have a starting point in their work with this population. Despite the roughness of the correlation, something can be said about the significance of there being a correlation present at all. There is clearly some evidence that the English language assessments hold some validity and reliability when assessing children who have just been submerged into English. With additional studies and

continued research on this topic, assessing the language of internationally adopted children will gain some solid ground.

Post Adoption

Attachment

After adopting from institutions overseas, American parents have discovered the harsh reality of attachment disorders present in their newly adopted children. Attachment is the critical bond formed between parents or caregivers and children, typically in the newborn and infant stages. Healthy bonds create trusting and emotionally reciprocal relationships not only between parent and child, but between the child and future friends and significant others. The key to healthy attachment stems from stable relationships early in life. Rarely do babies in institutionalized settings receive an adequate amount of the individual attention necessary to promote healthy bonds (Shapiro et al., 2001).

Already, infants abandoned in orphanages have experienced the detrimental loss of a biological mother or primary caregiver. Studies indicate that bonding begins immediately after birth through breastfeeding and skin to skin contact and continues to develop throughout the next several years (Ainsfeld & Lipper, 1983). Soothing vocal sounds, rhythmic rocking, and the manner in which the infant is held are positive exchanges conducted within the first days of life that are required to develop a healthy emotional foundation. Without these, even children as young as 6 months can exhibit signs of neglect and emotional deprivation. With time, the capacity to form trusting relationships with others

deteriorates and becomes problematic for the child and the adoptive parents (Shapiro et al., 2001).

The homecoming to the United States has frequently proven itself to be less glamorous and loving than most adoptive parents fantasize. Despite the often despair living conditions in orphanages, removal from that environment can still be a frightening experience for the young adoptee. The orphanage is what the child knows as “home” and the playmates and culture are a familiar routine, even if abuse or neglect has occurred. Self-coping or self-destructing mechanisms such as rocking, scratching, hair pulling or head banging may have replaced the need for human contact (Shapiro et al., 2001). Consequently, adoptive parents, though well-intentioned, are seen as strangers in the child’s eyes. Once removed from the institution, all sense of contrived stability and familiarity has vanished, creating an upheaval of emotions for the child.

Adjustment to the new home environment is a process that can take years. Children void of empathetic caregivers for the majority of life can resort to a variety of negative behaviors and display severe emotional confusion during even minor adjustments. Social withdrawal has been observed in many cases of international adoption (Shapiro et al., 2001). Particularly evident is the child’s aversion to the adopted parents and inability to be consoled by anyone. Explosive tantrums, aggression towards self and others, hyperactivity, and volatile mood swings indicate the lack of coping skills in dealing with everyday family situations. Until time of adoption, many children have never witnessed an

appropriate model of interaction and need time to realize that the adoptive home and parents are a stable learning resource (Shapiro et al., 2001).

In addition to emotional tumult, the newly adopted child is also learning a new language and attempting to “catch up” on physical and cognitive milestones. Interdisciplinary teams including speech therapists, cognitive specialists, education specialists, physical and occupational therapists may be sought out to assist the adoptee in proper development. These professionals are likely seen in addition to medical doctors and psychologists (Shapiro et al., 2001). It is easy to see how overwhelming the transition from institutionalized life to the United States can be for a young child.

School Years

With the majority of internationally adopted children growing up in orphanages and having interrupted language development, school performance becomes a concern as children enter kindergarten. There are two types of languages that a child needs to master. The first is day-to-day language where the child communicates needs and wants effectively in a contextual situation using common every day speech. The second is school language whereby the child must understand the content of de-contextualized communication that is not situational (Dalen, 2001). Though a child appears to master English in day-to-day language at home, more severe problems may become evident as school language demands higher cognitive levels.

School performance among internationally adopted children was examined in a study conducted in Norway. The sample included 386 children

ages 11 to 16, half of whom were internationally adopted from either Korea or Columbia. Each adoptee was matched by school grade, gender, and birth month to a non-adopted Norwegian born peer. Average age of adoption was 16 months. Dalen (2001) hypothesized that “adopted children as a group will have lower school performances than non-adopted children.” The children were examined by classroom teachers using rating scales in 5 content areas: educational skills, language skills, school behavior, problem behavior, and parental support. In educational skills, children were rated on level of performance in each school subject. Language skills were divided into two categories: day-to-day language and school language. Teachers were asked to rate the child’s understanding of daily conversation and classroom lectures. School behavior rated the child’s performance on tasks such as turning in assignments on time. Problem behavior was rated in three subscales: extrovert, introvert, and hyperactive behavior. Lastly, the parental support category required teachers to rate the amount of time parents helped children with homework. Additionally, teachers were asked to report if the child received any special education services (Dalen, 2001).

The study revealed that internationally adopted children had overall lower school performance linked to low school language skills. Significant discrepancies were documented in educational achievement, hyperactive behavior, and special support at school. Conversely, parental support among internationally adopted children was significantly higher than non-adopted children. There was no difference in day-to-day language skills between adopted and non-adopted children (Dalen, 2001). This finding is deceptive, however, because despite

having good daily conversational skills, the child may struggle when higher cognitive processes are demanded in school. Limitations on the study included lack of information about the adoptee's history before adoption. Genetic and environmental factors can play a role in language development and subsequently school performance.

Conclusion

The Glennen studies, Gindis studies, and other studies mentioned provide a plethora of suggestions for accurate and competent clinical practice for an SLP involved in the treatment of internationally adopted children. Primarily, an internationally adopted child should be considered neither a bilingual learner nor a monolingual learner. The child will rarely use their native language in addition to English once submerged into an English environment, but that does not discredit its existence or influence on the acquisition of the new language. As a result of L1's influence on L2, the SLP should always take into account the phonemic, syntactic, and prosodic elements of the birth language. This information can assist with development of these same features in the English language. Also, using standard American English assessments can be used to roughly predict language outcomes for this population. There is minimal evidence based practice on this issue specifically, but existing studies present positive results and an overall theoretical soundness.

Additionally, an SLP should always consider the child's living conditions prior to adoption. Even positive orphanage experiences, though rare, can set a child up for a lifetime of health and developmental problems. Poor health care,

lack of nutrition and increased stress can cause ramifications impacting both physical and cognitive development. Furthermore, inadequate bonding with a caregiver may result in attachment issues that will affect the child's ability to create and sustain meaningful relationships throughout life. Acquiring as much pre-adoption history as possible will enable an SLP to assist in language growth and development as much as possible.

There are many areas of research that should be explored in relation to the acquisition of language in internationally adopted children. As previously mentioned, scores on standard American English assessments can roughly correlate to language outcomes. However, it would be beneficial to create a series of assessments tailored specifically to this population. Extensive research would be required before any normative data could be used legitimately. Furthermore, due to the nearly unlimited number of languages an adopted child might potentially speak, an assessment would need to be available in conjunction with a multitude of languages or be general enough to include everyone. This seems like a daunting task, but language development of internationally adopted children is still a somewhat ambiguous topic and these children deserve just as much right to a fair assessment as their monolingual peers.

Another area lacking in information is the effect of international adoption on older children. Very minimal research has been conducted on this subject. Based on the majority of studies done on the adopted population, it is clear that children aged one year through about four years have become the focal point of research. This is understandable because an overwhelming majority of adopted

children are within that age range, but majority does not signify the whole, and there are vast numbers of international adoptions involving children aged five and up. After age five, language becomes increasingly mature and it would be interesting to view the effects of total English submersion on an older child with a fully developed native language. Observing for L1 retention and language disorders could also be significant. The implications of such a study would guide SLPs through assessment and intervention with these individuals.

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