

Rowan University

Rowan Digital Works

Theses and Dissertations

5-7-2001

The effects of institutionalization on Romanian children when adopted into families in the United States

Dawn M. Roy
Rowan University

Follow this and additional works at: <https://rdw.rowan.edu/etd>



Part of the [Educational Psychology Commons](#)

Recommended Citation

Roy, Dawn M., "The effects of institutionalization on Romanian children when adopted into families in the United States" (2001). *Theses and Dissertations*. 2307.
<https://rdw.rowan.edu/etd/2307>

This Thesis is brought to you for free and open access by Rowan Digital Works. It has been accepted for inclusion in Theses and Dissertations by an authorized administrator of Rowan Digital Works. For more information, please contact graduateresearch@rowan.edu.

**THE EFFECTS OF INSTITUTIONALIZATION ON ROMANIAN CHILDREN
WHEN ADOPTED INTO FAMILIES IN THE UNITED STATES**

by
Dawn M. Roy

A Thesis

Submitted in partial fulfillment of the requirements of the
Master of Arts Degree
of
The Graduate School
at
Rowan University
May 1, 2001

Approved by

Professor

Date Approved

5/7/01

ABSTRACT

Dawn M. Roy

The Effects of Institutionalization on Romanian Children
When Adopted Into Families in the United States
Spring, 2001

Roberta E. Dihoff, Ph.D. and John Klanderman, Ph.D.
Master of Arts Degree in School Psychology

This study attempts to research the dynamic factors involved in the assessment of children placed in adoptive homes in the United States who were taken from large institutional orphanages in Romania. This paper will discuss various aspects of problems that were encountered by children who lack the stimulation, stability and love that are crucial during the early years of development. It also endeavors to provide interventions that will enable these children to progress along more developmentally appropriate guidelines.

This project utilized a single subject design. The analysis was descriptive in nature. It measured the improvement of mean utterance length. The instruments used in this analysis were archival records of the Early Intervention Program, and a questionnaire completed by the child's therapist.

Conclusions of this study indicated a significant increase in expressive and receptive language skills as represented by the increase in mean utterance length as measured from the period September, 1998 through August, 1999.

The results of this study support the existing literature and emphasize the importance of Early Intervention Programs. It is imperative to assess children early and implement intervention programs when there is evidence of a deficit. This will allow children to develop to their full potential.

MINI-ABSTRACT

Dawn M. Roy

The Effects of Institutionalization on Romanian Children
When Adopted Into Families in the United States

Spring, 2001

Roberta E. Dihoff, Ph.D. and John Klanderman, Ph.D.
Master of Arts Degree in School Psychology

Romanian children placed into adoptive homes in the United States encounter various problems caused by lack of stimulation, stability and attachment during critical developmental periods. Early Intervention programs aimed at assessing these deficits and the implementation of remediation has proven to significantly increase their development along more appropriate levels.

Acknowledgements

To my husband, Tommy, my daughter Dawn and my Dad, for their enduring patience and love. Their unyielding faith and encouragement helped me through the difficult times. Without their help, I would not have been able to reach my goal.

To my friends and family who supported me and convinced me that I was able to accomplish this task.

To Dr. Dihoff, for her vision and support in making this thesis become a reality.

To Dr. Klanderman for his encouragement and patience.

Table of Contents

<u>Chapter 1:</u> The Problem -----	1
Need -----	1
Purpose -----	2
Hypothesis -----	3
Research Questions -----	3
Theory -----	5
Assumptions -----	6
Limitations -----	7
Overview -----	8
<u>Chapter 2:</u> Review of Literature -----	9
Introduction -----	9
Medical and Physical Implications -----	9
Cognitive Implications -----	12
Social and Emotional Implications -----	14
Summary and Conclusion -----	15

<u>Chapter 3:</u> Design of Study -----	18
Sample -----	18
Measures -----	18
Procedure -----	19
Design -----	20
Testable Hypotheses -----	20
Analysis -----	20
Summary -----	21
<u>Chapter 4:</u> Analysis of Results -----	22
Restatement of Hypotheses -----	22
Interpretation of Results -----	22
Statement of Significance -----	22
Summary -----	26
<u>Chapter 5:</u> Summary and Conclusions -----	27
Summary -----	27
Conclusions -----	27
Discussion -----	28
Implications for Future Research -----	28
<u>Appendix</u> -----	30

Graphs

Graphs

Graph 4.1: Function level at nineteen months ----- 24

Graph 4.2: Length of Mean Utterance ----- 25

Chapter 1: The Problem

Need

Adoption is a very real occurrence in our society. Childless couples are more frequently pursuing the adoption of infants and young children born in foreign countries. Currently, Romania has become a country that is willing and able to provide or accommodate this need of American couples.

Known as the “land of the orphans”, Romania has achieved this reputation due to the oppressive legacy of the former ruthless dictator, Nicolae Ceausescu and his wife and their pro-natalist policies. With the fall of this dictatorship, the world watched in horror as we discovered more than 150,000 malnourished, neglected and abused children who were held like prisoners in the antiquated assemblage of hospitals and orphanages of Romania. It has been said that the dispirited faces of these children may be likened to the prisoners of the concentration camps of Nazi Germany, however, all of these victims were completely innocent, helpless children.

These children of Eastern Europe and the former Soviet Union are challenged not only by their birth, but also by the often miniscule amount of information available about them prior to adoption. Previous research has attempted to analyze the pre-adoptive medical reports of these children, however, there are many other variables needed to construct a comprehensive view of their strengths and weaknesses.

Because of the inherent deleterious repercussions of a country suffering this sort of adversity, compounded by the turbulent socio-economic uncertainty, and lack of

development in the field of psychology, many children have been placed in large scale impersonal orphanages. These institutions lack the time or resources to allow the development of the child's full potential. It is for this reason that the need for early intervention has become so critical.

This study aims to focus on a comparison of adoptive children and their progress, or lack thereof, after being placed in a stable, loving and supportive family in the United States who have the resources and capacity to help these children progress to more developmental appropriate stages.

Several factors will be researched including the age of the child when adopted, assessment at the time of adoption, length of time in the Romanian orphanage, length of time in the adoptive home and type of problems noted. It will also research the interventions made and assess the need for further assistance. The researcher will have access to a population of adoptive families and will attempt to draw defensible correlations in relation to the various variables studied.

It is the hope of this researcher that after the analysis of the data, more effective measures can be made in the development of and assessment and intervention of all children, not solely adoptive children, but all children who are at risk in any manner. It is the strong belief of the author that early intervention is critical in the development of any child, but it is also believed that with the right amount of resources and knowledge, any child can significantly improve their quality of life through behavioral and environmental changes.

Purpose

Through the attached survey, which is made part of the appendix of this paper, this study aims to research the dynamic factors and variables involved in assessing and

evaluating children placed in adoptive homes in the United States who were taken from large institutional orphanages in Romania. It also attempts to provide interventions that will enable these children to progress along more developmentally appropriate guidelines. This study will consider certain variables and attempt to make strong correlations between the status of the children in the orphanage environment and to measure the appreciable strides that are possible through the removal of the environmental and socio-economic obstacles placed on these children through no fault of their own.

Hypothesis

1. Romanian children taken from orphanages and placed into stable and loving adoptive homes will progress steadily and adjust at a much higher rate than those who are left in the non-stimulating institution environment. The survey will be distributed to parents of adopted children and will elicit information necessary to make inferences and correlations between variables concerning the adaptation of these children. This adjustment will be measured through the accumulation and analysis of the data gathered from parental observations, medical background and social history of the children.

Research Questions

1. Does the age of the child significantly impact his/her ability to overcome early language, cognitive and adaptive delays?

The younger the age of the adopted child, the better able to overcome early language, cognitive and adaptive delays.

2. Are the circumstances during the pre-adoption period more or less significant than the amount of time in the orphanage?

The circumstances during the pre-adoption period is more significant than the amount of time in the orphanage.

3. Will an increase in stimulation and bonding positively correlate with the growth and development of these adopted children?

Increased stimulation and bonding will strongly positively correlate with the growth and development of adopted children.

4. Does the amount of stimulation and quality of attachment of primary care giver significantly increase the capabilities of the children to progress along a more developmentally appropriate course?

The amount of stimulation and quality of attachment with the primary care giver significantly increases the ability of adoptive children to develop and progress along a more typical course.

It is the aim of this research to gain sound information and measurements using the survey that was specifically designed to measure these research questions.

Theory

There have been several significant theories advanced in the study of early childhood development. The theories that have serious impact on the developing child, include, but are not limited to those mentioned in this paper.

Attachment means the feeling that binds a parent and child together. It is the emotional link between them, the desire to maintain contact through physical closeness, touching, looking, smiling, listening, or talking (Pipp & Harmon, 1987). All infants need to form a secure emotional attachment to someone, a mother, father, family member or substitute care giver (Bowlby, 1982). The formation of these close attachments is critically important to the child's total development (Main & Cassidy, 1988; Stroufe, 1985). These attachments give them security, a developing sense of self, and makes their socialization possible (Cassidy, 1986; Pipp, Easterbrooks & Harmon (1992). Children begin to identify with, imitate, and learn from the persons to which they feel closest. It is through these interactions that children learn what society expects from them. These contacts become the basis for personality and character formation. It has also been found that children who form secure relationships are more apt to show accelerated mental growth through the ability to reach out and explore many situations.

Attachment theory has great impact on the development of infants and young children who spend time in a large impersonal institutional setting. Maria Montessori originally used the term "sensitive period" to refer to a more flexible concept in reference to specific times in life when the child is more affected by certain kinds of experiences. This concept was a more broad and relaxed philosophy as compared to the more narrow term of "critical period". It has been shown through research that an infant in its early days is extremely vulnerable and dependent on its primary caregiver for food, comfort and all of its other needs. It is also noted that there seems to be sensitive periods for the

development of emotional attachments and social interactions and language formation (Bornstein, 1987). If severe deficits occur in these periods, the question arises if there can be the ability to acquire these skills in later development. The research indicates that two main areas need to be addressed in answering this question. The first is the degree of deprivation the child incurred during this period and the second factor is the manner in which the subsequent environment is able to satisfy the child's requirements. Erik Erikson (1963, 1968) suggested that the "cornerstone of a vital personality" is formed in infancy as the child interacts with parents and other caregivers. This cornerstone is one of basic trust as infants learn that they can depend on the caregivers to meet their needs for sustenance, protection, comfort and affection. Erikson divided human development into eight stages and posited that the individual has to master a psych-social task during each stage. This theory allows for the interplay between the environment and motivational factors in the task of development in children who have not had secure bonding and attachment experiences in early childhood.

Assumptions

It is assumed by the researcher that all of the data collected is as accurate as possible and that it is reported with an unbiased flavor.

The researcher also assumes that the observations, self-reports and various other methods of data collection were done primarily by persons not specifically trained in scientific method and the comments of these observers are strictly made within their own individual abilities and experiences. It is also noted that since there is no statement inferring that the persons involved in gathering data are professional researchers, their findings are to be viewed under this premise.

The researcher realizes that this study is based on a sample of children who are in a situation that was created as part of their birth. The children that this information is based on is largely homogeneous and while at first glance may seem not at all generalizable to the general public, the researcher believes that the information gathered on this rather small portion of the population has incredibly far reaching consequences for the benefit of all children. It is also assumed that the findings of this study will add to the existing body of knowledge and to the development and intervention of many programs that will lead to the formation of invaluable insights that may benefit not only children as they grow, but to also enrich the general population as our children are our greatest asset and our primary hope for the future.

Limitations

The limitations of this study are inherent in that this sample of children is very small in that it deals mainly with Romanian children who were placed in large, non-stimulating institutionalized orphanages. While the author realizes the limited generalizability because of the data mainly collected on Romanian children, she also understands the possibility of findings that may serve to benefit the larger population of all children.

Another limitation of this study is made in the fact that there may be cultural differences not accounted for in the early assessment of these children taken from orphanages. It is also understood that there may be a discrepancy in the prenatal and post natal care of infants in Romania and the United States and that those factors may be expressed either implicitly or explicitly in this study.

Overview

An intensive and evaluative review of pertinent research will be presented in Chapter 2. In Chapter 3, the basic design of the study including the description of the sample, statement of the measurements, and design will be addressed. Testable hypotheses and analyses of data will also be included in Chapter 3. Chapter 4 will serve as an intense analysis of the results of the data. These analyses will be made in reference to the hypotheses stated. Statements of the conclusions, and discussion of the implications of this study on the theory proposed by this research will be assessed thoughtfully in Chapter 5 of this research paper.

Chapter 2: Review of Literature

Introduction

In December, 1989, as the infamous reign of the Nicolae Ceausescu came to a violent closing, another horrendous chapter in World History began. With the fall of this dictatorship came tremendous casualties, many of them too young, too ill, too cognitively impaired, too developmentally delayed and too many to be imagined. It was at this point that the world community opened its eyes and hearts and began the task of trying to rebuild the lives of hundreds of thousands of infants and young children.

This chapter will focus on four general areas of literature review. The first area concentrates on the medical and physical aspects of large scale institutionalization. The second focus of the review of the literature will study the cognitive effects of lack of stimulation and attachment factors. The third main category of observation will describe and attempt to explain the social and emotional effects of the cold sterile environment in which these children have grown up in and will attempt to project the possible deleterious behaviors that might accompany such situations. The fourth area of literature review will study the recent empirical and correlational programs and assessment and intervention plans that will hopefully allow these children to progress toward a more developmentally appropriate status.

Medical and Physical Implications

The past decade has proven to be a sobering “natural experiment” in the area of large, inhumane institutionalization and treatment of infants and young children. The

research does not posit consistent findings in the areas of adequate medical records, some researchers claim there are detailed medical records available from birth and some strongly disagree. Due to the political and socio-economic climate of Eastern Europe during this time, the general consensus of research suggests that the instruments used for assessment and diagnostic purposes was less than competent and that the bias was considerable due to the fact that these records were maintained for the purpose of allowing prospective adoptive parents the chance to gain a window of understanding into their child. All this being considered, there are still several significant findings in the review of literature that indicate that too little information is available about these children prior to adoption (Albers, Johnson, Hostetter, Iverson, and Miller 1997, article #1).

Two particularly relevant and recent studies (Albers, et al, 1997; Johnson, Miller, Iverson, Thomas, Franchino, Dole, Kiernan, Georgieff and Hostetter 1992) report the power of the design of case series in which two groups; containing 56 and 65 children respectively, showed increased incidence of hepatitis B, intestinal parasites, tuberculosis, syphilis human immunodeficiency virus type 1, growth failure, and developmental delay.

According to Albers, et al. (1997) specific deficits were found in a wide range of measures including growth delays. More specifically, in regard to head circumference, gross motor delays in 70% of the children. Fine motor delays were found to be the largest percentage of deficit nearing 82% of the children tested. Language difficulties were noted in 59%, and social-emotional delays in 53% of this same sample.

The most easily understood statistic in these previous studies was the finding that Albers, et al, 1997 states that children had one month of linear growth lag for every five months in an orphanage. While significant medical problems were found or corroborated in 20% of the children assessed in their clinics, the neurological diagnoses that were

stated in the preadoptive medical records were not substantiated.

The developmental assessments that were studied confirmed that most children had remarkable delays in more than one area of development and cited fine motor skills as the most impaired. This finding is in direct correlation with previous research identifying early stimulation and exploring as key to developmental progress.

Findings of research conducted by Johnson, et al, (1992), seem to confirm previous research that states that the length of institutionalization correlates highly with the incidence and frequency of growth failure in these children.

Hostetter, Iverson, Thomas, McKenzie, Dole and Johnson, 1991, have researched the general conditions of screening and found the lack of guidelines for medical evaluation of the population of foreign born children being adopted by United States citizens. Roughly 83% of diagnoses were established by screening tests, rather than by history taking or physical exams. This brings to light the significance of trained personnel and their ability to make correct assessments of the children that they see, not only in medical parameters, but also in the areas of social, emotional and psychological wellbeing. It is the importance of an accurate diagnosis and its integral part of an evaluation that will ensure the implementation of the best intervention plan for the developmentally delayed child. It is noted that infectious diseases were the primary source of problems in children adopted from abroad, with neurological deficits following closely behind. It is for this reason that it is imperative that screening become more comprehensive to deter greater, more serious problems that these children are more prone to encounter (physical, neurological, emotional) as they get older and face more stressors in their environment.

A sobering statement made in the research of Frank, Klass, Earls, and Eisenberg (1996), relays the findings that infants and young children are uniquely susceptible to the

physical, psychological and emotional dangers that are encountered in large institutional settings or orphanages and that no amount of financial aid will take away the exposure and detrimental effects of this environmental. Frank, et al, (1996) states five general areas of potential risk for this population of infants and young children which include infectious morbidity, nutrition and growth deficits, cognitive delays, socioaffective development, and physical abuse.

In conjunction with the other areas of concern, there is a very basic need that is not being met in these children. That need is for adequate nutrition. The lack of sustenance in this regard has many manifestations and is definitely a factor in the areas of both physical and mental health. This need is compounded by the way that young Romanian children are fed. Very young infants are not cuddled and held closely when being fed. They are generally fed by propping a bottle close by. Not only are their physical problems being generated by this feeding procedure, but these children are also missing out on a very intimate bonding experience with a care giver. When these two factors, malnutrition and lack of intimate feeding experience, occur, these children are beginning their young lives with a very serious deficit, (some of which is questionable if that attachment can be attained later) (Harlow & Harlow, 1972). Studies of institutionalized children emphasized so-called “affectionless psychopathy” as the characteristic outcome (Bowlby, 1946) - a pattern of failure to form intimate committed relationships associated with antisocial behavior (Rutter, 1981).

Cognitive Implications

Rutter, Andersen-Wood, Beckett, Bredenkampf, Castle, Goothues, Kreppner, Keaveney, Lord, O'Connor, and ERA Study Team (1999) report through their research the findings that many young children taken from orphanages in Romania exhibit

symptoms closely comparable to those exhibited by children with autistic tendencies. They also state in their research, while not exact, the findings are reminiscent of autism. This study will lead to further research in this field. The main point that the authors posit is, that while these children were followed up at four years of age and at six years of age, there was a significant amount of improvement in these symptoms of autism. The factors that were regarded as influencing this improvement were the love and stability of the foster family and the ability for the child to receive better nutrition, improved medical care and the attention and attachment of those in a family setting. These implications are far-reaching in the fact that there seems to be hope in helping children, who are a little older, to regain some lost deficits due to the institutional setting with the help of a strong, stable support system in the form of an adoptive family.

This study also notes that the symptoms of autism were not found in infants who were adopted in the first six months of life. This is another decidedly important factor relating to the timing of institutionalization and also age of adoption of the child. While the author admits that it is not a realistic contention that all children will be adopted during the first six months of life, she also admits that through the benefit of the rather extensive work of Rutter, et al. (1999), there has come a need to develop intervention programs to allow those children who remain in an institutionalized setting longer to receive better care and possibly to offset some of the negative implications that occur in that setting.

It has been noted in previous research of the detrimental cognitive effects of institutionalized rearing (Bowlby, 1951; Freud & Burlingham, 1973; Provence & Lipton, 1962; Spitz, 1945). The authors of these studies have stated that developmental delays appear along all domains and includes lower IQ scores and socio-emotional delays. The present literature being reviewed includes study of the cognitive and social skills of

adopted Romanian orphans. These children were tested on various traditional and non-traditional measures and the data supported the findings in previous research (Kaler & Freeman, 1994). It is important to note that Kaler & Freeman, 1994, found that although these children exhibited similar deficits, they found a strength in these children in the area of peer social interaction. This is an important conclusion in that it allows for hope in moving toward strategies that will influence and possibly positively affect the development of cognitive abilities in children who spent time in a non-stimulating environment.

Social and Emotional Implications

Psychologists have long been intrigued by the social and emotion implications of early childhood institutionalization. Considering this vast body of literature, there has been little research done on the effects of this institutionalization when these children are later placed into adoptive homes. This appears to be a requisite time to focus on the problems that are inherent to these children and their circumstances.

As stated in the research of Mainemer, Gilman, and Ames, (1998) and previously reported studies (Provence & Lipton, 1962) it is clearly shown that children who are reared in cold, sterile, deprived orphanage settings suffer substantial and widespread developmental delays, including physical and emotional manifestations, severely retarded language development (Hunt, et al., 1976) and signs of cognitive impairment (Dennis, 1973). It is also noted that these children are at a great disadvantage in the areas of emotional and social development. These domains of development seem to be the areas that have the most lasting detriment in the growth of these children. Moreover, children who have been raised in institutionalized settings display a variety of behaviors that adoptive parents may find disturbing (Mainemer, et al., 1998). The consequences of this

maladaptive behavior are noted seriously in the areas of their initiation and response to social contact (Provence & Lipton, 1962). These young children also possess difficulty in their ability to form attachments to people or objects and frequently engage in rocking and other behaviors indicating their attachment challenges and deficits. Prior research abounds with findings that support the theory that early deprivation causes developmental delays along widespread areas. However, the research that focuses on the plight of the young children adopted from Romania suggest that, while they include all of the previous problems, they also present with several other social and emotional consequences that can not be mended with better nutrition and more advanced medical care. These children require a whole host of strategies that will help the child adjust in all domains and attend with special concentration of those areas that behavior problems were significantly more susceptible to disruption. When Romanian children are placed in adoptive homes, research has posited that the impact of the various special needs of the child (visual or hearing impairment, physical impairment, medical conditions and mental retardation) were found not to be related to the quality of the parent-child relationship. In contrast, developmental delays, and learning disabilities were found to be moderately associated with more problematic relationships, and lastly, behavior problems were strongly associated with unsettled relationships (Mainemer, et al, 1998).

Summary and Conclusion

While this research is very thought provoking and profound, it must be realized that the procedures for gaining this data were not done in ideal controlled environments. Many of the laboratory tests and diagnostic methods were not done with either the time or knowledge and instruments that we in the United States are accustomed to being in use. We must also take care to realize that the questions raised in regard to the general

health, lack of technology and potential parent's biases must also be included in this equation when critically reviewing this research. It is however, the author's opinion that when taking all of these variables into consideration, there still remains a strong foundation on which to build a practical frame of reference and basis for treatment of the many delays that are being noted in this population of children.

Although an attempt has been made to discuss the previous aspects of development in some detail, the researcher is in support of a global and interactionist approach. This approach entails all of these approaches specifically and in reference to each other for an eclectic picture of the development of infants and young children. It is crucial, therefore, to review the literature both independently and in the context of each other to develop a perspective that will be most beneficial in planning strategies for both accurate assessment and the implementation of effective intervention programs.

It is essential that early intervention programs be implemented in order to decrease the deleterious effects of cold institutional settings. It would be to our great benefit as a society to realize that the developmental delays that we are witnessing are a suggestion that children coming from deprived environments that lack the basic needs that all people, especially infants and young children require to flourish and grow be considered temporarily "special needs children" (Albers, et al. 1997) and with that classification be afforded all of the advantages that follow.

In conjunction with the aforementioned classification, it is a program to be implemented and used that will allow for the continued intensive rehabilitation for these children. As an aspect of this rehabilitation, there is a crucial need for intense communication between the parents and the physician to maximize the potential and diminish the deficits that are inherent to children raised in this type of environment. This

being the goal to strive for, it is hopeful that recovery from these developmental and various delays will be dimmed and each of these children will reach some improvement in the general quality of their lives.

Chapter 3: Design of Study

Sample

The sample consisted of a single subject who was followed for eleven months. She was adopted from a Romanian orphanage at nineteen months of age and demonstrated developmental delays most marked in language (see table or figures).

Measures

The measures utilized in this study consisted of a survey questionnaire developed by the researcher are geared at gathering descriptive data regarding the adopted children from Romania and a year's compilation of progress notes from an Early Intervention Program. This survey (Appendix A) was designed with several goals in mind. It was the intention of this survey to attain information in several areas in the children's physical, emotional, psychological, cognitive and behavioral development.

This survey was arranged in a way that could be considered "user friendly". It was meant to be easily completed by parents and succinct and not burdensome. The questions included in the survey ask the parents to rate their child in various ways. There were forty-four questions that simply required a yes or no answer. There were eight questions that asked the parents to rate their child's behavior or demeanor on a likert scale ranging from "very poor", "poor", "average", "good" and "excellent". This questionnaire included twenty open-ended questions that were intended to solicit more detailed information about the child and asked the parents to explain or elaborate on their

answer. The final question gave the parents information and the opportunity to pursue the possibility of further testing and evaluation if it is necessary.

The questions were arranged in chronological order and were divided into five categories. The first category requested information about the child's background and consisted of fifteen questions. The second set of questions, included eleven questions, and inquired about the medical history of the child, if that knowledge was available. The researcher assumed that there will be much variation in the ability of the parents to answer these questions fully and accurately, depending on whether they had access to this information or not. The third area of inquiry focused on the developmental history of the child and contained fourteen questions. The fourth area of questions included eleven questions and concentrated on the observations made by the adoptive parents. The final set of questions related to attachment issues and consisted of fourteen questions intended to obtain qualitative impressions from the parents. Each of these categories included several questions that attempted to gain a better understanding of the child's strengths and weaknesses. They also solicited insights and inferences that may be drawn as the parents of these children have the greatest access to observe these behaviors in the situations in which they naturally occur. These questions also evaluated the trends of development and may be used for assessment and intervention purposes.

Progress notes were scored across each Early Intervention therapy session for Mean Utterance Length based on the number of words and grammatical markers used. Values were averaged by month.

Procedure

A cover letter explaining the nature of this study was given to the child's therapist along with the questionnaire.

Archival records were reviewed by the researcher, and developmental delays were noted in each of the following areas including social-emotional development, fine motor skills, cognitive ability, gross motor skills, receptive and expressive language aptitude.

Design

The design of this study was single subject and descriptive in nature and examines the progress of a single subject in the area of receptive and expressive language. The instruments that will be used in the assessment of improvement will be the progress of language skills, qualitative interpretation of archival records, notes from the child's therapist during the Early Intervention Program, and the responses of the questionnaire completed by the therapist.

Testable Hypotheses

Null Hypothesis: The child will not demonstrate significant improvement by participating in the Early Intervention Program.

Alternate Hypothesis: The child will demonstrate significant improvement by participating in the Early Intervention Program.

Analysis

This research was done on a single subject. It is descriptive in nature. Due to the design of this study, the author realizes that these results may not be able to be generalized to the larger population. However, it is significant to note that the findings of this research warrant further investigation. This descriptive data makes no assumptions that this subject is representative of the general population. It is the researcher's hope

that after the analysis of the data including the charting of language skills, the qualitative interpretation of archival records of the therapy sessions, and the responses of the questionnaire completed by the therapist, a determination will be made as to the effectiveness of the Early Intervention Program.

Summary

The study consisted of a single subject. This child was followed for eleven months. She was adopted from a Romanian orphanage at nineteen months and demonstrated developmental delays in several areas including social-emotional development, fine motor skills, cognitive ability, gross motor skills, and most marked impairment in receptive and expressive language. The measures that were used to gain descriptive data on the subject included Early Intervention notes evaluated by the researcher, archival records and a questionnaire completed by the child's therapist.

Chapter 4: Analysis of Results

Restatement of Hypotheses

Null Hypothesis: The child will not demonstrate significant improvement by participating in the Early Intervention Program.

Alternate Hypothesis: The child will demonstrate significant improvement by participating in the Early Intervention Program.

Interpretation of Results

The project utilized a single subject design. Analysis was descriptive in nature.

After the analysis of the data including the improvement of language skills, the archival records of the Early Intervention Program and the responses of the therapist as shown on the questionnaire, the null hypothesis was rejected.

The child did demonstrate significant improvement due to her participation in the Early Intervention Program. Progress notes were scored across each Early Intervention therapy session for Mean Utterance Length based on the number of words and grammatical markers used. Values were averaged by month and the results showed an increase in the months from September to August.

Statement of Significance

As shown in the graphs, in Chapter 4, there was a significant increase in the mean

utterance length beginning with 0 words in September, 1998 and rising steadily through August, 1999. The detailed progression is as follows and is measured in the mean number of words at the specific time: September, 1998, 0.0 words; October, 1998, 2.0 words; November, 1998, 2.00 words; December, 1998; 2.50 words; January, 1999, 2.5 words; February, 1999, 2.5 words; March, 1999, 3.0 words; April, 1999 3.0 words; May, 1999, 3.0 words; June, 1999, 4.0 words; July, 1999, 4.5 words and August, 1999 5.0 words.

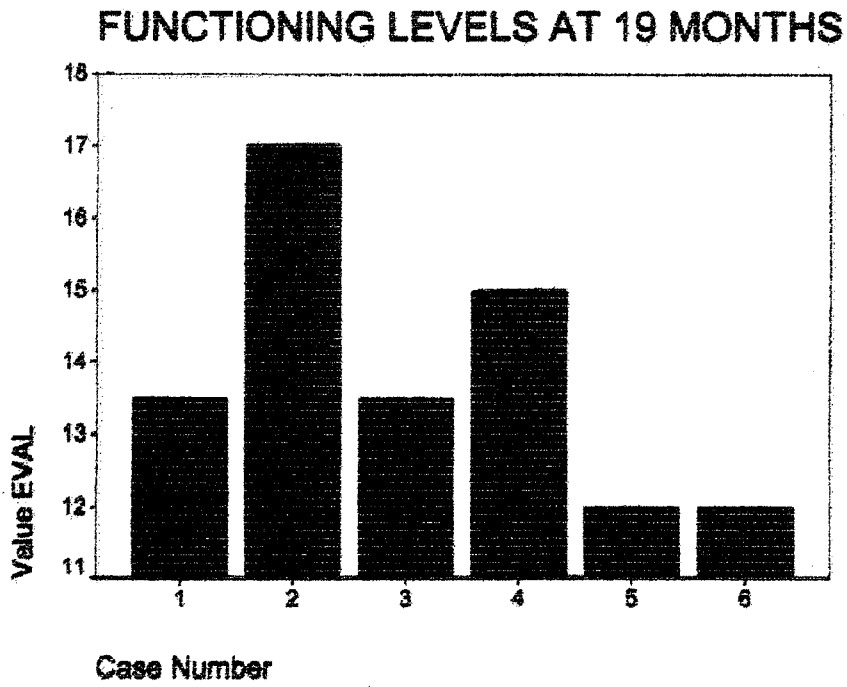
There was not only a quantitative increase in mean utterance length, but also a qualitative growth in language, both expressive and receptive. There was a steady increase in less imitation of words and sounds and also a change from inconsistent vocalizing to more appropriate responses in general conversation settings.

The child saw remarkable growth in the area of communication as noted by the speech therapist notes and also by the therapist who saw the child weekly for evaluation. There was also an increase in spontaneous conversation and a trend of the child using more than two words in a sentence. The child also increased her vocabulary dramatically as seen in her ability to name certain objects and in being able to receptively identify bike and other toys.

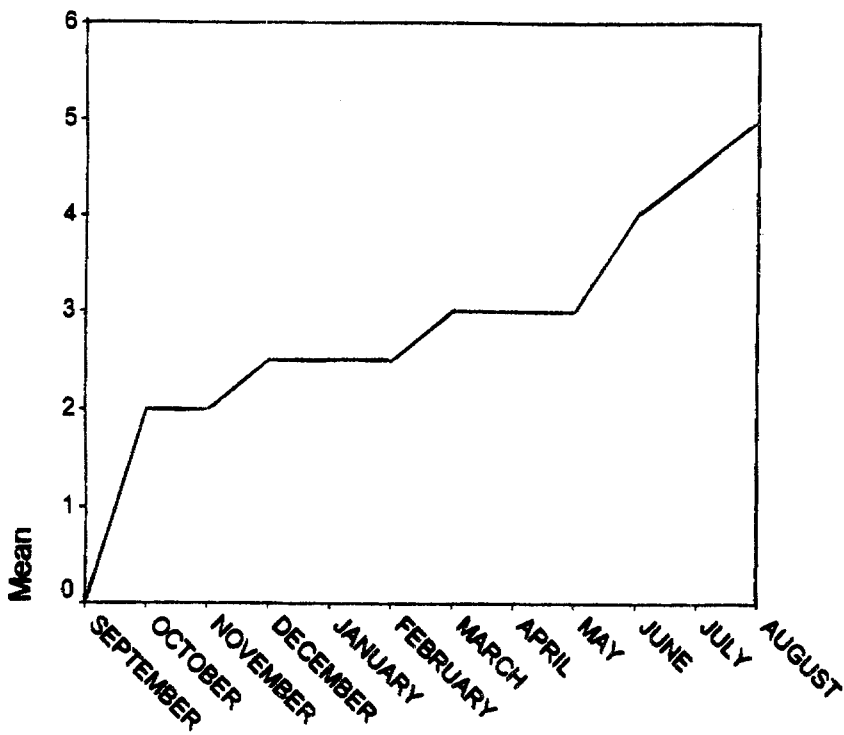
In July the child began to increase sentence length and demonstrated responses to where questions without prompts. Color identification also became pronounced at this stage and more varied speech inflection was noted. She began to initiate conversation and showed a more consistent mastery of plural usage and subject/verb agreement.

Her receptive language has grown progressively as she was able to follow two part directions well. There was a marked growth in the variety of responses that the child demonstrated through the growth from two to four word sentences with meaning.

Graph 4.1: Functioning Levels at Nineteen Months



Graph 4.2: Length of Mean Utterance



Summary

Through the data collected on this single sample and after review of the observations of the speech therapist, the responses on the survey and the actual progression in mean language utterance, the researcher asserts that this is significant improvement. It is also noted that early intervention has proven to aid children in the areas in which they are weak.

Chapter 5: Summary and Conclusions

Summary

This research was done on a single subject. It is descriptive in nature. Due to the design of this study, the author realizes that these results may not be able to be generalized to the larger population. However, it is significant to note that the findings of this research warrant further investigation. This descriptive data makes no assumptions that this subject is representative of the general population. It is the researcher's hope that after the analysis of the data including the charting of language skills, the qualitative interpretation of archival records of the therapy sessions, and the responses of the questionnaire completed by the therapist, a determination will be made as to the effectiveness of the Early Intervention Program.

Conclusions

The findings of this research support the existing literature on the benefits of Early Intervention Programs. The child in this study was followed over an eleven month period and showed a significant increase in mean utterance length. There was not only an increase in receptive and expressive language skills, but there was also a significant increase in the quality of her communication skills. It should also be noted than when

this child was tested at three years of age, she had improved so significantly that she no longer required any further special interventions. Her scores upon reevaluation demonstrated that her participation in this early intervention program proved to be so successful that she performed at an age appropriate level and no further services were needed.

Discussion

The importance of Early Intervention programs is supported by this study. Adopted children from foreign countries will benefit from these types of programs. The age of the child is an important factor in the success of these programs. The younger the child is at the time of assessment correlates positively to the chance of achieving significant results. The existing body of literature also states that though the circumstances may be different in the case of each individual child, that early evaluation and the implementation of these remedial programs may dramatically increase the capacity for development along more appropriate and typical courses.

Implications for Future Research

While this study was done as a single subject design and may not be generalizable to the general population, I believe the results are significant and should be viewed as support for the finding that Early Intervention Programs are essential. These programs are invaluable to children with special needs, whether adopted from foreign countries or born in the United States. Social-emotional development, fine motors skills, cognitive

ability, gross motor functions, receptive and expressive language are the key building blocks to typical growth and development. If a child demonstrates a deficit in any of these areas, it is imperative to assess them early and compile a program addressed at developing these skills as to prevent further delay.

The existing body of literature, in conjunction with this present study, assert the importance of early assessment and intervention and have proven that success is greater when the remediation takes place at an earlier age.

The researcher realizes that foreign adopted children who are taken from large institutional settings present problems and difficulties that may not be inherent in the general population, however, the construct of early intervention for support in the development of the child's weaknesses has shown to be a major predictor of more appropriate development.

Appendix

CHILD'S INITIALS _____
DATE OF BIRTH _____
TODAY'S DATE _____
PERSON COMPLETING THIS FORM _____
COUNTRY OF ORIGIN _____

I – BACKGROUND

1. How old was your child at the time of adoption?

YEARS	MONTHS
-------	--------

2. How old was your child at the time he/she was placed in the institutional setting?

YEARS	MONTHS
-------	--------

3. How long was your child in this setting?

YEARS	MONTHS
-------	--------

4. If your child was not in the institutional setting from birth, in what other placements was the child before placement with your family?

5. Were you given any medical history of the biological parents? If so, please describe.

YES	NO
-----	----

6. Were you given any information about the care given to the child in any of the places where the child was cared for before being placed in your home?

YES	NO
-----	----

7. Did you have an opportunity to have this child evaluated by professionals with you in Romania prior to adoption?

YES	NO
-----	----

8. Are you familiar with the daily activities of your child while in institutional care?

YES	NO
-----	----

9. Were you given any medical or developmental history of the child prior to adoption? If so, did you have an opportunity to review these records?

YES	NO
-----	----

10. Did you have the opportunity to visit the orphanage and review the care before adoption? If so please describe the interaction between the child and caregiver.

YES	NO
-----	----

11. If known, what was the name of the town the orphanage was located in?

YES	NO	TOWN
-----	----	------

12. Are you familiar with your child's diet while in the orphanage? If yes please describe.

YES	NO
-----	----

13. Did the child present any eating problems prior to adoption, if known? If yes, please explain.

YES	NO
-----	----

14. Did the child present any sleeping problems prior to adoption, if known, If yes, please explain.

YES	NO
-----	----

15. Do you have any other children? If so, how many?

YES	NO	AGES
-----	----	------

II – MEDICAL HISTORY

16. How did your pediatrician view the initial condition of your child at the first examination?

POOR	AVERAGE	GOOD
------	---------	------

17. How would you describe your child's health at the time of adoption?

POOR	AVERAGE	GOOD
------	---------	------

18. Did your child have any identified health problems at the time of adoption?

YES	NO
-----	----

19. Was your pediatrician familiar with medical problems and testing for children adopted from institutions like your child?

YES	NO
-----	----

20. Have you taken your child to be examined by any medical specialists since the arrival in your home for any reason other than traditional pediatric care? If so for what issues?

YES	NO
-----	----

21. Has your child been diagnosed with any disability or medical condition including learning disabilities since the arrival in your home?

YES	NO
-----	----

22. Did your child participate in any early intervention programs upon arrival in your home?

YES	NO
-----	----

23. Did your child receive any special or individual attention for any condition or delay upon arrival in your home?

YES	NO
-----	----

24. Has your child received special services from your state, school district or insurance provider in response to any medical or developmental conditions?

YES	NO
-----	----

25. Have you participated in any support groups or programs designed to address specific issues unique to your child?

YES	NO
-----	----

26. How would you describe your child's health now?

POOR	AVERAGE	GOOD
------	---------	------

III – DEVELOPMENTAL HISTORY

27. In reviewing the initial experience of your child in your home was the arrival in your home happy and comfortable.

YES	NO
-----	----

28. Did your child enjoy interaction, physical contact and play upon arrival in your home?

YES	NO
-----	----

29. When did your child respond to the given name?

YEARS	MONTHS
-------	--------

30. When did your child smile and feel comfortable in your home environment?

YEARS	MONTHS
-------	--------

31. When did your child begin to successfully interact with members of your family?

YEARS	MONTHS
-------	--------

32. Did your child exhibit unusual behaviors? Explain.

YES	NO
-----	----

33. Did your child find enjoyment in usual activities? Explain.

YES	NO
-----	----

34. Did your child participate in activities that were age appropriate upon arrival?

YES	NO
-----	----

35. Did your child exhibit any self-stimulatory or perseverative behaviors?

YES	NO
-----	----

36. Did your child exhibit any unusual sensitivities, fears or preferences?

YES	NO
-----	----

37. When did your child first begin to successfully make her needs known?

YEARS	MONTHS
-------	--------

38. At what age did your child begin to use words?

YEARS	MONTHS
-------	--------

39. At what age did your child begin to walk?

YEARS	MONTHS
-------	--------

40. Does your child have any developmental problems that you are aware of? If yes, please explain.

YES	NO
-----	----

IV- PARENTAL OBSERVATIONS

41. Do you feel that your child exhibits any unusual behaviors, fears or anxieties? If yes, please describe.

YES	NO
-----	----

42. Have you established accommodating behaviors and plans to meet any special needs of your child? If so please elaborate.

YES	NO
-----	----

43. Is your child able to attend to age appropriate activities together with typical peers in your home?

YES	NO
-----	----

44. Is your child able to participate, attend and transition in-group activities with typical peers in programs outside of your home?

YES	NO
-----	----

45. Has your child exhibited any unusual sensitivities to otherwise normal activities?

YES	NO
-----	----

46. Are you comfortable with your child's developmental progress especially in relationship to typical siblings or peers?

YES	NO
-----	----

47. Have you sought expertise or advice from professionals in areas of specific concern for your child?

YES	NO
-----	----

48. How would you rate your child's interaction with other children his/her age?

BELOW AVERAGE	AVERAGE	SUPERIOR
---------------	---------	----------

49. How would you rate your child's appetite?

POOR	AVERAGE	GOOD
------	---------	------

50. How would you rate your child's sleeping patterns?

POOR	AVERAGE	GOOD
------	---------	------

51. Have you now, or in the past, noticed any communication problems?

YES	NO
-----	----

V - ATTACHMENT

52. Please describe the care provided to your child after arrival in your home. i.e. day-care, home-care etc.

53. Does your child call and seek your help at night when startled or afraid?

YES	NO
-----	----

54. How does your child separate from you in a new environment?

BELOW AVERAGE	AVERAGE	SUPERIOR
---------------	---------	----------

55. Does your child understand the concept of "strangers"?

YES	NO
-----	----

56. Is your child wary of new acquaintances?

YES	NO
-----	----

57. Is your child eager to play and relate to you and members of your family?

YES	NO
-----	----

58. Does this child participate in activities like other members of the family?

YES	NO
-----	----

59. How would you classify your child's temperament?

EASY	MODERATE	DIFFICULT
------	----------	-----------

60. Has your child in the past, or presently, shown a wide range of emotions? Please explain your answer.

YES	NO
-----	----

61. How would you describe your child's interactions with yourself, your spouse, siblings, and strangers? Please explain your answers.

BELOW AVERAGE	AVERAGE	SUPERIOR
---------------	---------	----------

62. Did your child in the past, or does he/she presently, show signs of attachment and bonding difficulties? Please explain.

YES	NO
-----	----

63. Would you rate the adoption experience as mutually rewarding to your family as well as the child?

YES	NO
-----	----

64. Would you consider adopting another child? From a foreign country? From this country? Please explain.

YES	NO	COUNTRY
-----	----	---------

65. Has your child received any specific type of testing, if so what kind, what were the results and evaluations of that testing?

66. If you need any information or assistance, or if you believe that your child would benefit from specific testing, assessment and/or intervention programs please supply your name and phone number so that we may contact you.

References

- Albers, L. H., Johnson, D. E., Hostetter, M. K., Iverson, S. & Miller, L. C., (1997). Health of children adopted from the former Soviet Union and Eastern Europe. *Journal of the American Medical Association*, 278, 922 – 924.
- Bornstein, M.H. (1987). *Sensitive periods of development*. Hillsdale, N.J.: Erlbaum.
- Bowlby, J. (1946). *Forty-four juvenile thieves: Their characteristics and home life*. London: Bailliere, Tindall & Cox.
- Bowlby, J. (1951). Maternal care and mental health. Geneva: *World Health Organization* (No. 2)
- Bowlby, J. (1982). Attachment and loss: Retrospect and prospect. *American Journal of Orthopsychiatry*, 54, 664 – 678.
- Cassidy, J. (1986). The ability to negotiate the environment: An aspect of infant competence as related to quality of attachment. *Child Development*, 57, 331 – 337.
- Dennis, W. (1973). *Children of the crèche*. New York: Appleton Century-Crofts.
- Erikson, E. (1963). *Childhood and society* (2nd ed.). New York. W. W. Norton.
- Erikson, E. (1968). *Identity: Youth and crisis*. New York. W. W. Norton.
- Frank, D. A., Klass, P. E., Earls, F., & Eisenberg, L. (1996). Infants and young children in orphanages. One view from pediatrics and child psychiatry. *Pediatrics*, 1996 97:569 – 578.
- Freud, A. & Burlingham, D., (1973). *Infants without families: reports on the Hamstead nurseries 1939 – 1945*. New York: International Universities Press.
- Harlow, H. F. & Harlow, H. K. (1972). The affectional systems. In A. Schrier, H. F. Harlow & F. Stollnitz (Eds.). *Behaviour of non-human primates. Vol. 2*. New York: Academic Press.
- Hostetter, M. K., Iverson, S., Thomas, W., McKenzie, D., Dole, K., & Johnson, D. E. (1991). Medical evaluation of internationally adopted children. *The New England Journal of Medicine*, 325, 479 – 485.
- Hunt, J. McV, Mohandessi, K., Ghodasi, M., & Akiyama, M. (1976). The psychological

- development of orphanage-reared infants: Interventions with outcomes. *Genetic Psychology Monographs*, 94, 177 – 226.
- Johnson, A., Miller, L., Iverson, S., Thomas, W., Franchino, B., Dole, K., Kiernan, M., Georgieff, M., & Hostetter, M. (1992). The health of children adopted from Romania. *Journal of the American Medical Association*, 268, 3446 – 3451.
- Kaler, R. S. & Freeman, B. J. (1994). Analysis of environmental deprivation: Cognitive and social development in Romanian orphans. *Journal of Child Psychology and Psychiatry*, 35, 769 – 781.
- Main, M. & Cassidy, J. (1988). Categories of response to reunion with the parent at age 6: Predictable from infant attachment classifications and stable over a 1-month period. *Developmental Psychology*, 1988, 24(3), 415 – 26.
- Mainemer, H., Gilman, L. C., & Ames, E. W. (1998). Parenting stress in families adopting children from Romanian orphanages. *Journal of Family Issues*, 19, 164 – 180.
- Pipp, S., Easterbrooks, M.A., & Harmon, R.J. (1992). The relation between attachment and knowledge of self and mother in one- to three-year old infants. *Child Development*, 63, 738-750.
- Pipp, S. & Harmon, R.J. (1987). Attachment as regulation: A commentary. *Child Development*, 58, 648 – 652.
- Provence, S. & Lipton, R. C. (1962). *Infants in institutions*, New York: International Universities Press.
- Rutter, M. (1981). *Maternal deprivation reassessed* (2nd ed.). Harmondsworth, UK, Penguin..
- Rutter, M., Andersen-Wood, L., Beckett, C., Bredenkamp, D., Castle, J., Groothues, C., Kreppner, J., Keaveney, L., Lord, C., O'Connor, T. G., and the English and Romanian Adoptees (ERA) Study Team. (1999). Quasi-autistic patterns following severe early global privation. *Journal of Child Psychology and Psychiatry* 40, 537 – 549.
- Spitz, R. A. (1945). Hospitalism: An inquiry into the genesis of psychiatric conditions in early childhood. *Psychoanalytic Study of the Child*, 2, 53 – 74.
- Stroufe, L.A. (1985). Attachment classification from the perspective of infant-caregiver relationships and infant temperament. *Child Development*, 56, 1 – 14.