

RUNNING HEAD: Children of Adolescent Mothers

Adolescent Motherhood and Developmental Outcomes of Children in Early Head Start:  
The Role of Family Characteristics, Maternal Well-Being, and Parenting

Michelle Lodise, M.S.Ed.

A Doctoral Project Submitted in Partial Fulfillment of the Requirements for the Degree  
of Doctor of Psychology in the Department of Psychology at Pace University

Spring 2008

New York

UMI Number: 3321229

Copyright 2008 by  
Lodise, Michelle

All rights reserved.

#### INFORMATION TO USERS

The quality of this reproduction is dependent upon the quality of the copy submitted. Broken or indistinct print, colored or poor quality illustrations and photographs, print bleed-through, substandard margins, and improper alignment can adversely affect reproduction.

In the unlikely event that the author did not send a complete manuscript and there are missing pages, these will be noted. Also, if unauthorized copyright material had to be removed, a note will indicate the deletion.

**UMI**<sup>®</sup>

---

UMI Microform 3321229

Copyright 2008 by ProQuest LLC.

All rights reserved. This microform edition is protected against  
unauthorized copying under Title 17, United States Code.

ProQuest LLC  
789 E. Eisenhower Parkway  
PO Box 1346  
Ann Arbor, MI 48106-1346

PSY.D PROJECT FINAL APPROVAL FORM

NAME: Michelle R. Lodise

TITLE OF PROJECT: Adolescent Motherhood and Developmental Outcomes of  
Children in Early Head Start: The Role of Family Characteristics,  
Maternal Well-being, and Parenting

DOCTORAL PROJECT COMMITTEE:

PROJECT ADVISOR: Yvonne Rafferty, Ph.D.  
Name

Professor Pace University  
Title Affiliation

PROJECT CONSULTANT: Anastasia Yasik, Ph.D.  
Name

Associate Professor Pace University  
Title Affiliation

FINAL APPROVAL OF COMPLETED PROJECT:

I have read the final version of the doctoral project and certify that it meets the relevant requirements for the Psy.D. degree in School-Clinical Child Psychology.

Yvonne Rafferty  
Project Advisor's Signature  
Anastasia Yasik  
Project Consultant's Signature

Aug. 2, 2008  
Date

8-5-08  
Date

## ACKNOWLEDGEMENTS

First and foremost, I would like to express my gratitude to Dr. Yvonne Rafferty for providing me with the wonderful opportunity to develop a doctoral project based on the National Early Head Start Research and Evaluation Project. I have deeply appreciated the attention, concern, feedback, and direction I received from Yvonne throughout this process and could not have asked for a more dedicated advisor. I would also like to thank Dr. Anastasia Yasik for her guidance, support, and statistical consulting during the completion of this project. Thanks are also due to my family and friends. In particular, I would like to express my gratitude to my parents and grandparents, who instilled in me a strong work ethic, offered their prayers and assistance during my lengthy tenure as a student, and always believed in my chances for success. Lastly, I wish to thank my husband Daniel for helping me to stand tall after the worst of days, for the sacrifices he has made in the service of making my dreams come true, and for being my partner in life, “Come What May.”

## TABLE OF CONTENTS

| CHAPTER   | PAGE |
|---|------|
| ACKNOWLEDGEMENTS  | iii  |
| LIST OF TABLES  | viii |
| LIST OF FIGURES   | ix   |
| ABSTRACT  | x    |
| CHAPTER I: INTRODUCTION   | 1    |
| CHAPTER II: LITERATURE REVIEW   | 3    |
| Adolescent Motherhood   | 3    |
| Overview of Adolescent Pregnancy in the United States                 | 3    |
| Developmental Outcomes for Adolescent Mothers                         | 4    |
| Adolescent Pregnancy and Parenting in the Context of Poverty and Risk | 4    |
| Childhood Poverty   | 5    |
| Prevalence and Statistics   | 5    |
| Impacts of Poverty on Child Development                               | 6    |
| Impacts of Poverty on the Home Environment                            | 7    |
| Developmental Outcomes for Children of Adolescent Mothers             | 8    |
| Cognitive Development   | 8    |
| Language Development  | 9    |
| Aggressive Behavior and Social-emotional Development                  | 9    |
| Risk and Protective Factors in the Development of Children of         | 10   |

|  |    |
|--|----|
| Adolescent Mothers   |    |
| Maternal Mental Health and Well-being                      | 11 |
| Early Head Start and Maternal Mental Health                | 11 |
| Maternal Depression and Child Development                  | 14 |
| Maternal Depression in Adolescent Mothers                  | 15 |
| Parenting Stress and Child Development                     | 16 |
| Parenting Stress in Adolescent Mothers                     | 17 |
| Parenting Behaviors  | 18 |
| Maternal Depression and Parenting Behaviors                | 18 |
| Parenting Stress and Parenting Behaviors                   | 19 |
| Cultural Variations in Parenting Practices                 | 19 |
| The Link between Parenting Behaviors and Child Development | 20 |
| The Parenting Behaviors of Adolescent Mothers              | 21 |
| Family Structure and Models of Adolescent Parenting        | 22 |
| Family Resources   | 23 |
| Family Resources and Family Functioning                    | 23 |
| Family Resources and Adolescent Motherhood                 | 23 |
| Family Conflict  | 24 |
| Family Conflict and Parenting                              | 24 |
| Conflict and Adolescent Motherhood                         | 25 |
| Father Involvement   | 26 |
| Father Involvement and Child Development                   | 26 |
| Father Involvement in the Context of Adolescent Parenting  | 26 |

|  |    |
|--|----|
| Adolescent Mothers and the NEHSRE                                    | 27 |
| Summary of the Existing Literature on Children of Adolescent Mothers | 32 |
| Statement of Purpose   | 33 |
| Research Questions   | 34 |
| CHAPTER III: RESEARCH METHODOLOGY                                    | 39 |
| Participants   | 39 |
| Materials  | 42 |
| Developmental Outcomes   | 42 |
| Family Characteristics   | 45 |
| Maternal Well-being  | 46 |
| Parenting Behaviors  | 48 |
| Procedure  | 51 |
| CHAPTER IV: RESULTS  | 52 |
| Descriptive Data   | 52 |
| Developmental Outcomes   | 52 |
| Family Characteristics   | 53 |
| Maternal Well-being  | 54 |
| Parenting Behaviors  | 55 |
| Research Findings  | 56 |
| Adolescent Motherhood and Developmental Outcomes for Children        | 56 |
| Adolescent Motherhood and Family Characteristics                     | 58 |
| Parenting Behaviors and Outcomes for Children of Adolescent Mothers  | 60 |
| Maternal Well-being and Outcomes for Children of Adolescent Mothers  | 61 |

|  |    |
|--|----|
| Predictors of Child Development                                      | 63 |
| Interactions between Maternal Well-being and Parenting in Predicting | 70 |
| Child Outcomes   |    |
| CHAPTER V: DISCUSSION  | 77 |
| Summary of Findings  | 77 |
| Adolescent Motherhood and Child Development                          | 77 |
| Adolescent Motherhood and Family Characteristics                     | 79 |
| Maternal Well-Being, Parenting, and Developmental Outcomes           | 80 |
| Predictors of Developmental Outcomes for Children of Adolescent      | 83 |
| Mothers  |    |
| Limitations  | 87 |
| Future Research  | 90 |
| Implications   | 92 |
| REFERENCES   | 96 |



## LIST OF TABLES

|          |  |    |
|----------|--|----|
| Table 1  | Parent Demographic Characteristics   | 41 |
| Table 2  | Child Demographic Characteristics  | 42 |
| Table 3  | Children's Developmental Outcome Scores  | 53 |
| Table 4  | Family Characteristics   | 54 |
| Table 5  | Maternal Mental Health Scores for Adolescent Mothers                                       | 55 |
| Table 6  | Mother-Child Interaction Scores for Adolescent Mothers                                     | 56 |
| Table 7  | Independent Samples t-test Results for Adolescent Motherhood<br>and Child Development      | 57 |
| Table 8  | Independent Samples t-test Results for Adolescent Motherhood<br>and Family Characteristics | 59 |
| Table 9  | Correlations among Key Predictor and Outcome Variables                                     | 62 |
| Table 10 | Hierarchical Regression Analyses Predicting Cognitive<br>Development                       | 65 |
| Table 11 | Hierarchical Regression Analyses Predicting Language<br>Development                        | 67 |
| Table 12 | Hierarchical Regression Analyses Predicting Aggressive<br>Behavior                         | 69 |
| Table 13 | Interactions between Maternal Well-being and Parenting in<br>Predicting Child Development  | 71 |

**LIST OF FIGURES**

|          |   |    |
|----------|---|----|
| Figure 1 | Interaction between Maternal Warmth and Depression            | 73 |
| Figure 2 | Interaction between Maternal Supportiveness and Depression    | 74 |
| Figure 3 | Interaction between Maternal Assistance and Parental Distress | 75 |

PREVIEW

## ABSTRACT

Numerous studies have described the increased risk of poorer developmental outcomes among the children of adolescent mothers, leading adolescent parent status to be viewed as a risk factor for child development. However, research has often shown that the developmental differences observed between the children of adolescent and older mothers cannot be attributed solely to maternal age. Rather, these differences in child outcomes have often been accounted for by the less optimal parenting behaviors and increased risk for maternal mental health problems observed among adolescent mothers. Studies have also shown that adolescent mothers and their children are more likely to be exposed to a number of demographic and family risk factors that are known to impede both effective parenting behavior and child development, such as lower maternal education, limited financial resources, limited paternal involvement, and increased family conflict.

The present study examined the impact of teenage motherhood, family characteristics, maternal mental health, and parenting on the developmental outcomes of three-year-old children. The sample consisted of 2,108 children and their mothers who were enrolled in the National Early Head Start Research and Evaluation Project. Adolescent mothers accounted for approximately 39% of all participants in this study. Developmental outcomes for children were directly assessed using the Bayley Scales of Infant Development – II, the Peabody Picture Vocabulary Test – III, and the Aggressive Behavior subscale of the Child Behavior Checklist. Information about family

characteristics, family functioning, and maternal well-being was collected via parent interview. Mother-child interactions were videotaped and analyzed to provide information regarding parenting behaviors.

Results of this study revealed that children of adolescent mothers had lower scores on measures of cognitive and language development than their peers who were born to older mothers. Predictors examined here at the level of the child, the mother, the family, and parenting were differently associated with each of the three developmental outcomes for children. Both cognitive and language development were independently predicted by the race/ethnicity of the family and stimulation of language and learning in the home environment. In addition to these shared predictors, cognitive development was predicted by receipt of Early Head Start services and family receipt of public assistance. Receptive language development was also predicted by child gender. Aggressive behavior, on the other hand, was not predicted by any of the demographic or parenting variables included in the model and was solely predicted by indicators of parenting stress.

The current study has several important implications for the field of psychology. Most notably, the findings highlight the significant negative impacts of poverty and demographic risk on the development of young children regardless of the mother's age at the time of the child's birth. Prevention and early intervention programs are sorely needed to mitigate these impacts and to promote positive development.

## **CHAPTER I: INTRODUCTION**

### *Overview*

Numerous studies have described the increased risk of poorer developmental outcomes among the children of adolescent mothers, leading adolescent parent status to be viewed as a risk factor for child development. However, research has often shown that the developmental differences observed between the children of adolescent and older mothers cannot be attributed solely to maternal age. Rather, these differences in child outcomes have often been accounted for by the less optimal parenting behaviors and increased risk for maternal mental health problems observed among adolescent mothers. Studies have also shown that adolescent mothers and their children are more likely to be exposed to a number of demographic and family risk factors that are known to impede both effective parenting behavior and child development, such as lower maternal education, limited financial resources, limited paternal involvement, and increased family conflict. Further research is needed to determine how teenage motherhood interacts with other maternal, demographic, and contextual risk factors to predict child outcomes.

Early Head Start (EHS) is a comprehensive, two-generation program designed to serve low-income children under the age of three and their parents. Developed by the Administration for Children and Families (ACF) within the U.S. Department of Health and Human Services, the ultimate goals of EHS are strengthening families and promoting positive child development during the critical first three years of life (ACF, 2002). In the 1990s, the Head Start Advisory Committee called for an evaluation of Early Head Start to

examine the impact of program participation on various outcomes for children and families. Data for the National Early Head Start Research and Evaluation Project (NEHSRE) were collected from 17 program sites operating around the country that, together, were thought to be representative of the communities and families served by EHS in terms of geographic location, demographic characteristics, and program approach. The results of this evaluation have been published by ACF and data were made available for public use by Mathematica Policy Research, Inc. in 2004.

The present paper will attempt to further examine the potential impacts of teenage motherhood, family characteristics, maternal mental health, and parenting on the developmental outcomes of three-year-old children. Through exploration of existing research and secondary analyses of data collected through the National Early Head Start Research and Evaluation Project (NEHSRE), a theoretical model of association developed by Rafferty (2006) incorporating maternal age, family risk factors, maternal mental health, parenting behaviors, and child developmental outcomes will guide the present doctoral project.

## **CHAPTER II: LITERATURE REVIEW**

### **Adolescent Motherhood**

#### *Overview of adolescent pregnancy in the United States*

Approximately one million adolescents living in the United States become pregnant each year, resulting in almost half a million births to school-aged mothers (Martin et al., 2003). The most recently published statistics on adolescent motherhood indicate that the national birth rate for females ages 15-19 is 41.1 per 1,000 females (The National Campaign to Prevent Teen and Unplanned Pregnancy, 2007). While this rate represents a 33% decline in the adolescent birth rate since it peaked in 1991, it remains significantly higher than the teenage birth rate in most of the world's industrialized nations (Clemmens, 2002). It is important to note that adolescent pregnancy and birth rates vary among the major racial and ethnic groups in the United States. As of 2004, although African-American adolescent females have the highest pregnancy rate of the groups studied by the National Center for Health Statistics (134.2 per 1,000 females ages 15-19), the teenage birth rate is highest among Latinas at 82.6 per 1,000 females. Teenage births in this population occurred at a rate more than twice the national average in 2004, and actually represent an increase in births over the 2003 rate. Adolescent birth rates recorded for other ethnic groups identified in 2004 were as follows: 63.3 per 1,000 African-American adolescents, 26.7 per 1,000 Caucasian adolescents, and 17.1 per 1,000 Asian adolescents (The National Campaign to Prevent Teen and Unplanned Pregnancy).

*Developmental outcomes for adolescent mothers*

Adolescent mothers have long been identified as a high-risk population. This labeling is due to the fact that research has repeatedly linked teenage motherhood to many negative maternal outcomes. Adolescent mothers are less likely than older mothers, for example, to complete their high school education. They are less likely to be consistently employed, to work in positions that offer benefits and livable wages, and to be economically self-sufficient (Miller, Miceli, Whitman, & Borkowski, 1996).

Psychologically, adolescent mothers are at greater risk for mental health problems than their non-parenting peers (Keown, Woodward, & Field, 2001). In addition, they are less likely to marry or have long-term partnerships compared to their non-parenting peers and more likely to divorce if they do marry (Brooks-Gunn & Chase-Lansdale, 1995). Teenage mothers have gained the attention of policymakers in part because of the economic difficulties they often face, as they are more likely to receive welfare benefits and to remain on welfare for longer periods of time when compared to older mothers (Berlin, Brady-Smith, & Brooks-Gunn, 2002).

*Adolescent Pregnancy and Parenting in the Context of Poverty and Risk*

As Hobcraft and Kiernan (2001) reported in their study, girls from impoverished family backgrounds are more likely to become adolescent mothers. Based on a large prospective longitudinal study, these authors found that the greater the level of poverty a female experienced during childhood, the more likely she was to give birth during adolescence. More specifically, 31% of the girls categorized as having lived in extreme poverty in this study had a child by the age of 18 in comparison to 8% of girls who had never experienced family poverty during childhood (Hobcraft & Kiernan).



In addition to childhood poverty, adolescent motherhood has been linked to family conflict, with problematic mother-daughter relationships during the teenage years creating a particular risk for adolescent pregnancy (Trad, 1994). Beyond parent-child conflict, there is some empirical evidence suggesting a link between childhood abuse and adolescent motherhood, with 23% of 121 adolescent mothers taking part in a recent study reported having been abused by a parent during childhood (Jenkins, Shapka, & Sorenson, 2006). Within the context of poor, conflictual, and rejecting families, adolescent pregnancy may serve to fill a teenager's sense of loneliness, to resolve a dependency conflict with a parent, or to provide the teenager with an excuse to leave the family home (Trad, 1994).

### **Childhood Poverty**

#### *Prevalence and Statistics*

According to information derived from U.S. Census reports, children under 18 are much more likely than adults to be poor (Child Trends Data Bank, 2007). In 2006, 17% of children lived in families below the national poverty threshold, defined at that time as an annual household income of \$20,444 or less for a family of four. Among these children, 7% were categorized as living in extreme poverty, with annual household incomes more than 50% below the poverty threshold. Further analysis of childhood poverty data indicates that some subgroups of children in the U.S. are more likely to be poor than others. For example, 33% of African-American children and 27% of Hispanic children were living in poverty in 2006, compared to only 14% of Caucasian children and 12% of Asian children. Family structure was also linked to differences in poverty rates, such that 42% of children in families headed by a single mother were poor while only 8%

of children in families headed by a married couple were poor. Lastly, poverty was much more prevalent among younger children, with 20% of children under 6-years-old being identified as poor in comparison to 15% of children ages 6-17 (Child Trends Data Bank, 2007).

### *Impacts of Poverty on Child Development*

The devastating impacts of poverty on child development have been well-documented in the existing literature. These impacts are often evident even at the time of birth, such that children born into poor families are more likely to be premature, to be low birth-weight, and to experience perinatal complications that significantly increase their risk for various developmental delays (Child Trends Data Bank, 2007). Many of the documented effects of poverty are related to children's cognitive functioning and academic performance. Children living in poverty typically have lower IQ scores, lower rates of school attendance, lower reading and math achievement scores, higher rates of grade retention, and higher drop-out rates in high school (Child Trends Data Bank). In addition, poverty has significant implications for children's social-emotional development and children from poor families have been found to be more distractible, less socially competent, more aggressive, and more likely to engage in delinquent behaviors in adolescence than their non-poor peers. However, it is important to note that these developmental impacts are not uniform and can in fact vary greatly based on the timing, severity, and duration of childhood poverty. According to a meta-analysis by McLoyd (1998), poverty experienced during the first two years of life, extreme or deep poverty, and chronic or persistent poverty is more devastating than transient poverty or poverty experienced in later childhood or adolescence.

*Impacts of Poverty on the Home Environment*

While poverty may have a direct negative impact on some areas of child functioning, many of its effects are mediated by factors inherent in the home environments and daily experiences of poor children (McLoyd, 1998). According to research, being poor affects almost every aspect of children's home lives on a daily basis (Bradley, Corwyn, Pipes-McAdoo, & Garcia-Coll, 2001). Recent studies have shown that poor children are disproportionately exposed to inadequate nutrition, lead poisoning, maternal depression, parental substance abuse, trauma and violent crime, divorce, and low-quality childcare – all of which are in themselves risk factors for child development (Child Trends Data Bank, 2007). In addition, poor families have reduced access to resources and services such as Early Intervention that are designed to mitigate the effects of existing risk factors and enhance children's well-being.

The stresses of attempting to raise a family in impoverished living conditions often have devastating emotional consequences for parents, further increasing their children's risk for delays and behavioral maladjustment (McLoyd, 1998). Parents in poor families have often been described as more harsh and inconsistent and providing less cognitive stimulation for their children than other parents. Using data collected from a large cohort of participants in the National Longitudinal Study of Youth (NLSY), Bradley et al. (2001) found that mothers in poor families were significantly less affectionate, more likely to rely on physical means of discipline such as spanking, and less likely to spend time teaching their young children important pre-academic concepts such as numbers, letters, colors, shapes, and sizes than their more affluent peers. In addition, poor families in this sample often lacked the consistent presence of the child's

biological father. More specifically, non-poor children were four to five times more likely to see their father daily across the first five years of life than poor children.

### **Developmental Outcomes for Children of Adolescent Mothers**

#### *Cognitive development*

Researchers have found that children born to adolescent mothers generally have significantly lower scores on measures of cognitive development than children who were born to older mothers (Hollander, 1995). Differences in development are evident in children as young as the age of three, where one study found that 56% of a large sample of three-year-old children of adolescent mothers had IQ scores below 85 at age 3 (Miller et al., 1996). After onset during the preschool years, the developmental gap between children of adolescent and older mothers tends to expand and become more pronounced as children grow older (Brooks-Gunn & Furstenberg, 1986; Moore, Morrison, & Greene, 1997). In addition to having lower overall IQ scores, Burgess (2005) notes that children of teenage mothers are typically thought to be lacking in reading readiness skills. However, evidence linking adolescent parenting to later poor school adjustment is inconclusive (Pianta, Lopez-Hernandez, & Ferguson, 1997).

Although most studies conducted in this area have found that differences in cognitive development between children of adolescent and older mothers exist, this conclusion is not unanimously supported. For example, results of the Baltimore Multigenerational Family Study found no significant impact of maternal age on child cognitive development (Chase-Lansdale, Gordon, Coley, Wakschlag, & Brooks-Gunn, 1999). In addition, when developmental differences based on maternal age do exist, the theoretical rationales and observed predictors of these findings are varied. Results of one

national study conducted by Geronimus, Korenman, and Hillemeier (1994) suggest that poor cognitive development among children of adolescent mothers can best be attributed to a disadvantaged maternal background rather than teenage parenthood itself. Similarly, results of the Baltimore Multigenerational Family Study indicated that co-residence with other supportive adults and overall quality of mothering, not maternal age, predicted child cognitive development (Chase-Lansdale et al., 1999).

#### *Language development*

In addition to possible cognitive delays, research has shown that children born to adolescent mothers have heightened risk for language delays (Brooks-Gunn & Chase-Lansdale, 1995). Difficulties with both expressive and receptive communication have been observed in children of adolescent mothers beginning in the preschool years. More specifically, Miller et al. (1996) found that 53% of a large sample of children of adolescent mothers had receptive language scores at or below the borderline range at age 3 while Keown et al. (2001) found that children of adolescent mothers had significantly lower expressive language scores than children of older mothers at age 3. The mechanism by which teenage motherhood relates to language delay is poorly understood. As a result, studies aimed at identifying the predictors of language development in children of adolescent mothers have been deemed a critical area for future research (Keown et al., 2001).

#### *Aggressive behavior and social-emotional development*

Early studies found that young children of adolescent mothers were more likely to be aggressive, distractible, and impulsive, and demonstrated greater levels of anger and noncompliance towards their parents in comparison to children born to older mothers

(Marecek, 1979). More recent studies on children of teenage mothers have demonstrated that these children are at increased risk for antisocial behavior and have lower levels of adaptive behavior (Dukewich, Borkowski, & Whitman, 1999; Woodward & Fergusson, 1999). These behavioral differences emerge early on in the lives of children and may initially be more salient than differences in cognitive and language development between children of adolescent and older mothers (Brooks-Gunn & Furstenberg, 1986). By the age of three, Miller et al (1996) found that 23% of their sample of children of teenage mothers had borderline or clinically significant levels of externalizing behavior problems. In comparison to cognitive and language development, behavioral outcomes for children of adolescent mothers are thought to be more closely tied to specific aspects of the home environment and mother-child interaction rather than socioeconomic status (Jenkins et al., 2006; Shaw, Lawlor, & Najman, 2006; Spieker, Larson, Lewis, Keller, & Gilchrist, 1997).

*Risk and Protective factors in the development of children of adolescent mothers*

Many studies have documented the developmental obstacles faced by children of adolescent mothers. However, significantly fewer studies have evaluated the developmentally successful children of low-income teenage mothers to determine what protective factors exist in these situations that are not present for children with poorer developmental outcomes (Luster, Bates, Fitzgerald, Vandenbelt, & Key, 2000). In their study, Luster et al. set out to identify the situational factors that distinguished academically successful children of teenage mothers from their less successful peers. This sample of teenage mothers and their children were involved in a support program from the child's birth until the age of 36 months, during which time data were routinely

collected through interview, home visits, and other assessments. Academic success, in this case, was based on child Peabody Picture Vocabulary Test scores at age 54 months. The 22 children with the highest scores in the sample were then compared to the 22 children with the lowest scores in the sample in terms of parenting behaviors, home environment, maternal educational success, maternal mental health, and family living arrangements. Results indicated that successful children received much more supportive care from their mothers and had mothers with higher educational attainment. Successful children were also living in safer neighborhoods, had mothers who were more consistently employed, and were more likely to be living with a father or father-figure than their less successful counterparts. The least successful children, on the other hand, were rarely read to in the home and often had a large number of siblings. These children were also being raised in stressful environments where families struggled to meet their basic needs and were exposed to less optimal parenting, which likely further negatively impacted their development (Luster et al.).

### **Maternal Mental Health and Well-Being**

#### *Early Head Start and Maternal Mental Health*

Maternal depression and other psychiatric conditions are now widely accepted as risk factors for poor parenting and child development. As such, Early Head Start programs are required to provide direct and referral services that address the mental health needs of participating mothers and caregivers. Several studies conducted with the NEHSRE population have examined the prevalence of maternal depression, its potential link to developmental outcomes for children, and its response to intervention in the form of a multitude of Early Head Start services (ACF, 2002).

One of these studies, conducted by Malik et al. (2007), examined the link between maternal depression and child aggression. This particular study was based on an Early Head Start sample taken from 5 of the 17 program sites contributing to the NEHSRE. Of the 270 mothers (mean age 24.9 years) and their children (mean age 24.9 months) participating in this study, 41.4% were African-American, 32.9% were Hispanic, 17.0% were Caucasian, 3.3% were recorded as Other. Overall, 37% of mothers were currently married, 7.4% were divorced, and 54.4% were never married. Results of this study indicated that 38.9% of the mothers scored at or above 16 on the Center for Epidemiological Studies Depression Scale, which was considered to be a high level of depressive symptoms. In terms of child aggression, 15.9% of the children had subclinical externalizing scores on the Child Behavior Checklist (T score of 60 to 69) and an additional 7.4% had clinical levels of externalizing behaviors on the CBCL (T score of 70+). Using structural equation modeling, the authors determined that perceived partner support predicted maternal mental health (depression, parental distress) which in turn predicted child aggression. Together, these predictors accounted for 36.4% of variability in child aggression after controlling for SES. Further analyses conducted by Malik et al. (2007) suggested that the relationships between maternal emotional well-being and child behaviors may be bi-directional, such that child aggression predicted less positive family functioning, which in turn predicted maternal depression.

Using the entire sample of 2,108 three-year-old children who were enrolled in the NEHSRE, Rafferty, Robokos, and Griffin (under review-b) examined the role of maternal well-being and parenting behaviors as predictors of developmental outcomes for children. Results indicated that children's aggressive behavior was predicted by maternal