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ADOLESCENT MOTHERS IN AN INTERVENTION STUDY: A
QUALITATIVE ANALYSIS OF VARIABLES RELATING TO THEIR
TEACHING INTERACTIONS WITH THEIR INFANTS

by

JANISSE VIRGINIA GUZMAN

A thesis submitted in partial fulfillment of the requirements
for the Honors in the Major program in Early Childhood Development and Education
in the College of Education
and in the Burnett Honors College
at the University of Central Florida
Orlando, FL.

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Thesis Chair: Dr. Anne McDonald Culp

Abstract

The intent of this thesis was to study, in depth, the experiences of four adolescent mothers who underwent a home intervention program. I studied two mothers who did well with teaching their 12-month old children during play, and two mothers who did not do as well. All four mothers received weekly intervention from the time of their child's birth through 12-months of age. I studied the following variables: 1) how much time the home visitors spent on selected child development and parenting topics; 2) the mother's perceived social support; 3) how many community resources the mother used; and 4) if the infant was healthy and within normal developmental range. All of the mothers struggled in their lives, yet varied in the quality and time of most of the variables. It was striking how different each one was from the other. The implications of the study are important for child development specialists who can use the qualitative data within this document to better understand first time adolescent mothers in order to improve the outcomes of the home visitation services that they provide to mothers and infants. After spending time studying these four adolescent mothers, I would recommend that adolescent women not get pregnant. Adolescence is a time that is meant for experiences and self-discovery and should be spent free from a dependent child who critically needs them. Future research and funding should be spent on preventing adolescent pregnancy and ensuring that flexible curriculum be utilized by the home visitors in order to meet the varying needs of adolescent mothers.

Acknowledgements

I want to express my sincerest thanks and appreciation to my committee members who guided and mentored me through this process. The feedback and guidance I received allowed me to make my thesis a reality. I would also like to thank Dr. Sherron Roberts for checking in on my progress, helping me with paperwork, and encouraging me throughout the semester. I would like to give a special thanks to my thesis chair, Dr. Culp, for providing so much support and taking so much time to assist me with this research project. Even being two time zones away, she called and emailed me and made it all work out. I have learned so much through the whole process and could not thank my committee enough for their help.

Dedication

Throughout this thesis I talk about the supports that the adolescent mothers in my case study had and it reminds me so much of the people who have supported me through all of my endeavors.

To my mother and father for all you have done and continue to do to support me with all of my goals. Without you both I would not be the person I am today. The lessons and values you have instilled in me continue to motivate me to succeed.

To Raul, thank you for listening to my late night presentation rehearsals.

To Lenny thank you for the tough love you would give me. Surprisingly telling me to “just get it done” when I felt like I was in over my head was all I needed.

To any adolescent mother that is struggling, finding positive people that will support you makes all of the difference in the world. Take time to thank them as often as possible.

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Chapter I

Introduction

Adolescent pregnancy is an important issue in the United States. It is not only a social problem to those directly involved, but to tax payers as well. Tax payers paid an extra \$9 billion in expenses for extra health care and foster care as well as for the incarceration of children of adolescent parents (Centers for Disease Control, 2010). In the United States alone, there were 435,000 live births to mothers who were between the ages of 15 and 19 years in 2008. Although this estimate may seem high, this number is actually showing a slight decline from the recent spike it had between 2005 and 2007 (CDC, 2010).

Significance of Study

This study can be used to help child development specialists better understand first time adolescent mothers and what they can do to improve the outcomes of home visitation services they provide for the mothers and infants.

Research Questions

The following research questions guided my study:

- 1) How many minutes did the home visitor teach child development and maternal role?
- 2) Did the mother perceive that she had enough social support during this time?
- 3) How many community resources did the mother use?
- 4) Was the infant healthy and within normal developmental age?

Definition of Terms

1. Community Services – The number of and the kind of services and resources that the mothers utilized within their communities throughout the duration of the home visitation program. Examples include the health care clinic, GED classes, WIC, nutrition information services, and parenting or child care classes.
2. Denver II (Frankenburg & Dodds, 1989) - This instrument assesses a child's performance on age-appropriate tasks in four domains of development which include: personal/social, fine motor, language, and gross motor. The Denver II is a screening tool that objectively measures children that may be at risk for developmental problems.
3. FOB – Father of the baby.
4. Full Time Employment – Full time employment of the mother is any job that is 37.5 hours or more.
5. Home Visitor – Also referred to as a child development specialist, they are the individuals who conduct the home visits with adolescent mothers. They had either a bachelor's or master's degree in child development. Many had at least five years of experience working with families. They received pre-service training, ongoing training, as well as on going supervision (Culp et al., 2004).
6. MOB – Mother of the baby.
7. OSU Staff – Graduate students from the Oklahoma State University who collected data from the home visitors and parents. They recorded the videotapes that were used to transcribe language samples which generated the coding for the mothers' teaching levels used in this study.

8. Social Support – In this study the mothers’ social support is measured by her perceptions of how she felt about the amount of support she was receiving. This includes how the mothers felt about the number of relatives they saw on a weekly basis, their own mother’s support, and how satisfied they were with their regular conversations with significant others and other adults over the span of the home visits.
9. TANF – Temporary Assistance for Needy Families is a federally-funded program to help support children and families in cases of poverty, unemployment, or parent absence. The adults responsible for the children will receive cash assistance and training for employment as well as other services they may qualify for, such as childcare assistance (Oklahoma Department of Human Services, 2010).
10. Topics covered by the home visitor
 - a. Child Development – This includes four domains of development: cognitive, social/emotional, physical, and language development.
 - b. Maternal Role – For this topic, the home visitor teaches the mother parenting skills, what it means to be a mother, and what it takes to parent their child.
 - c. Life Course – This part of the curriculum involves helping the mother go back to school, get a job, and obtain a GED if no longer in high school. Again, this is not a teaching lesson, but, rather, it is time spent helping the mother make decisions about her life course.
 - d. Crisis Management – When the home visitor reports spending time on crisis management, they are referring to assisting the mother through a crisis, not teaching them crisis management skills from a curriculum.

11. WIC – Women, Infant, and Children is a program that provides nutritious foods for mothers and their children, as well as nutrition education. The mothers must qualify according to guidelines that reflect income.

Limitations

Although there is valuable information about individual adolescent mothers within this document, there are some limitations to this study. The first limitation is that all of the mothers were Caucasian women born in the United States. In addition, this is a case study of four mothers, so the sample size is very small. Thus, generalizability to all adolescent mothers will be minimal.

Chapter II

Literature Review

Erikson's Psychosocial View

Adolescent mothers deal with typical stressors associated with adolescence, such as the formation of their identity, while, at the same time, having to take care of a newborn who is completely dependent upon them. According to Erikson (1963), it is during adolescence that individuals form an identity. Adolescents in this stage are shifting from how they see themselves to how others see them and how they can mold themselves into the roles they would like to have as an adult. Failure to explore one's options or form an identity results in role diffusion.

This is why adolescents can be self-centered during this stage and why they should be exploring possibilities for the future adult roles that they can take, such as having a career, rather than having to focus on the care of a newborn infant. When an adolescent takes on the role of a mother because of an unexpected pregnancy, she either loses or delays her search for an identity and may suffer role confusion (Erikson, 1963). Her chances to experience options in her life are diminished severely once she has a baby, because she will have been obligated to choose an identity without experimenting free independence.

In addition to creating an identity, adolescents are focused heavily on developing other social skills and intimacy in relationships. These foci make it difficult to meet their needs and those of the infants simultaneously (Emery, Paquette, & Bigras, 2008). This may be why adolescent mothers are less responsive, are less involved, and have less feedback in both verbal and emotional domains than their adult counterparts (Emery et al., 2008). Adolescents are maturing during a developmental stage in which their self is the focus. This focus on the self

makes it especially difficult to take on the responsibility of assisting another human being, which is needed being a mother of a newborn.

The Future of an Adolescent Mother

An adolescent's identity and development are not the only things that are put on hold or forfeited in response to her pregnancy. Early childbearing is a strong contributor of dropout rates in high school for girls. On average, about 90% of women who did not have children in their adolescence graduated and received their diplomas (CDC, 2010). In contrast, by 22-years of age, only half of the mothers who gave birth during adolescence earned a diploma (CDC, 2010). According to Causby (1991), even when the adolescent mothers stayed in school, higher absenteeism and lower GPA's (between 1.7 to 2.7 on a four point scale) were reported. Without completing their high school education, these mothers are only able to hold jobs that pay minimal wages. Reduced earning potential keeps the family in poverty and increases their reliance on money from welfare agencies (Ware, Osofsky, Eberhart-Wright, & Leichtman, 1987).

As seen in Culp, Culp, & Osofsky (1991), adolescents score significantly lower on child development and empathy assessments than older mothers. The young mothers' knowledge of child development also may be lacking, thus making their developmental expectations for the children unrealistic as well as unreasonable. These young mothers' inappropriate and skewed perceptions actually can be harmful to their infants because they can be associated with harsh parenting and maltreatment (Casanueva et al., 2010). Increasing adolescent mothers' knowledge of child development can help increase their ability to create reasonable expectations for their children. Increased stress and lower social support also may account for the fact that adolescents may suffer from increased stress and even depression as opposed to older mothers.

Although there are devastating effects for an adolescent to be a mother, the child also will experience some negative outcomes as well. Because of the emphasis on one's self in adolescence, infants may not receive all of the attention that they require. Quite a bit of time and effort is needed to raise an infant, but, according to Erikson's theory, adolescent mothers typically need to expend it on themselves. The goal for infants in Erikson's theory is to acquire a trusting relationship (Erikson, 1963). In other words, the infant needs to know that, if they are in need, they will be cared for. If the mother helps the infant achieve this goal, she may not have time to form her own identity, but, if she is too focused on herself, her child will not acquire the trust he or she needs for this stage. This is why it is so difficult for adolescents to become parents. Unless someone steps in to assist an adolescent mother, their chances for successfully achieving their child's trust needs can be difficult.

According to research summaries by Smith, Akai, Klerman, and Keltner (2010), a mother's ability to be an accurate reporter of developmental delays is hindered by their young age, level of education, and income level because these are commonly associated attributes of mothers who lack knowledge in the area of child development. According to Whitman, Borkowski, Keogh, and Weed (2001), most children of adolescent parents appear to develop normally up until 12-months of age. It is not until the age of 3-years that developmental delays were observed by this research team. At the age of 5 years, Whitman et al. (2001) used the Stanford-Binet assessment and discovered that only 34 percent of the children scored in the Average range. This finding is not surprising given that another study in which the quality of language used by adolescent mothers was not as good as their older counterparts because the adolescent mothers used more commands, were less affectionate, and used fewer words (Culp,

Osofsky, & O'Brien, 1996). In the future, children of adolescents are also prone to low school achievement, poverty, and (for males) incarceration (CDC, 2010). In order to ensure that these children do not succumb to such outcomes, it is imperative that specialists intervene. Helping young mothers provide an appropriate atmosphere for their children's development can and has been proven to help the young mothers and their infants overcome the trials ahead.

Expected Development in Infants

Adults have a significant impact on how children develop, especially those who are closest to the child, such as the mother. By 2-months of age, an infant is accustomed to how others interact with them (Fogel, 2011). This can convey to researchers that the infants will notice alterations in their mothers' mannerisms and tone as well as other aspects of their interaction. When infants are about 6-months old, they are more receptive and will prefer to have parent-centered experiences. When the infants are about 9-months old, they prefer to take more initiative (Fogel, 2011). This is true for their verbal skills, which they will begin to initialize as they get older. Children will begin to experiment with sounds and babble while they go about their day beginning at about 6-months (Fogel, 2011).

Eight months into their development, children begin to involve themselves in social games that include but are not limited to: "peekaboo," "gonna get you," and some vocal games. Following the social play stage, 10- to 12-month old children will begin to show coordinated joint attention, better described as "sharing a focus of attention on a single object with another person" (Fogel, 2011, p. 238). This is an important milestone because it leads to the development of joint visual attention, which leads into children gazing as a means of communicating with others and not just following the movement of an object (Fogel, 2011).

Another development that will be made during this age span is that infants will begin using intentional gestures. Between 9- and 10-months, children will begin to point at objects of interest as well as develop gestures to show that they are offering, giving, or requesting an item (Fogel, 2011). When infants develop both joint attention and gesturing, it becomes much easier for adults to teach their babies as their attention will be much easier to decipher.

The emergence of an infant's first words is found between the ages of 9- and 12- months. As children continue their babbling, they will start to form words that are similar to their favorite babbling sounds (Fogel, 2011). These babbles will be very similar to the words used in that child's environment and will eventually lead into their first intelligible words. There is some debate on whether these first sounds should be considered words as they are usually idiosyncratic (Fogel, 2011). The meaning of these sounds is held in the interpretation of the caregiver, who should recognize the relationship that the utterance has with the activity of the infant (Fogel, 2011). As infants start to use words and learn new words, adults play an important role in teaching them new words and the meaning of new words (Fogel, 2011).

Home Visitation/Intervention Programs

Typically, home visitation programs aim to improve one or several aspects of the participants' lives. In the early childhood field, these programs can focus on educating parents about various topics, such as developmental milestones, health and safety issues, effective parenting skills, and childcare. The topics that are chosen for specific programs are usually topics that have been identified as important to the development of the young child and their family but can also be centered on the issues that can be prevented such as abuse or neglect.

Home visitation, as defined by Bilukha et al. (2005), should include some combination of the following:

“training of parent(s) on prenatal and infant care; training on parenting to prevent child abuse and neglect; developmental interaction with infants and toddlers; family planning assistance; development of problem solving and life skills; educational and work opportunities; and linkage with community services” (p. 11).

The study conducted by Bilkha et al. (2005) defined programs that were either voluntary or mandated as early childhood home visitation programs.

Both Bilkha et al (2005) and St. Pierre, Layzer, and Barnes (1996) are in agreement that the home visitation process is for the benefit of the child but cannot exist without assisting their adult caretakers. The two-generational program has three key features, which are seen as necessary for the success of the program: “a developmentally appropriate early childhood program, a parenting education component, and an adult education, literacy, or job skills and training component” (St. Pierre et al., 1996, p. 4-6). According to St. Pierre et al. (1996), early childhood education and parenting education directly impact infants’ cognitive development prior to enrolling into school. Improving parents’ literacy skills will improve their quality of life, thus improving the child’s quality of life. There have been positive effects, such as reduced pregnancy and delinquency as well as improving economic self-sufficiency and being an informed citizen (St. Pierre et al., 1996).

Home visitation programs differ in more ways than just their focus and curriculum. Although there are positive effects of various programs, there is still no consensus as to who should be providing home visitation services. Research articles show a wide variety of

occupational titles such as nurses, child development specialists, and social workers as well as varying paraprofessionals and peer mentors (St. Pierre et al., 1996). All of this is notable because studies with different professionals and paraprofessionals are getting positive results. However, the debate on home visitation staff continues to exist today.

One of the main supporters of early home visitation program is David Olds (Olds, 1992). He employed nurses as home visitors, and his outcome studies have been highly referenced in the home visitation literature. He and his colleagues have 15 year follow up studies that show the children randomly assigned to the home visitation program, compared to the controls, are more likely to be employed full time, less likely to have experienced jail time, and are more likely to have graduated from high school (Olds, 1997; Olds, Eckenrode, Henderson, et al., 1997; Olds et al., 1998).

Other home visitation studies employ child development specialists as home visitors (Culp, Culp, Anderson, & Carter, 2006; Culp, Culp, Hechtner-Galvin, Howell, Saathoff-Wells, & Marr, 2004). They find many positive effects when the babies are 12 months. This is the data set that I am using in this thesis.

Chapter III

Methodology

This is a qualitative study in which the home visit interaction activities of four mothers and their children are studied in depth.

Background Information

A study on the effects of home visitation services on first-time mothers and their infants was conducted by Dr. Anne McDonald Culp and colleagues at Oklahoma State University and the University of Central Florida. This data set is expansive and covers over 250 mothers involved in weekly and bi-weekly home visits. The data set is large and has been published (Culp et al., 2004; Culp et al., 2007). The program aimed to enroll pregnant women as soon after conception as possible, at or before the twenty fourth week of pregnancy. After their twenty eighth week of pregnancy, women could not enroll in the home visitation program. Enrollment was completely voluntary and was open to residents in five target counties in Oklahoma. The home visitation program accepted community referrals from both public and private sources.

The mothers were involved in lessons with home visitors that had both pre-service training as well as ongoing training and were required to follow a detailed curriculum to assist these first-time mothers. The lessons involved, but were not limited to, child development, healthy living, fetal development, well child health care, environment health and safety, and the use of community resources.

The home visitors visited the mothers weekly for the first month after the mothers enrolled in the program and made biweekly home visits during the remainder of the pregnancy. In total, they had to visit four times prenatally. However, the home visitors resumed weekly visits for the first 12 weeks after the child was born. They needed to have made 45 post natal visits. It is also important to keep in mind that they had a detailed plan of action for missed visits in order to compensate for time lost.

Data Collection

There are two levels of data collection: 1) The 12 month language data collection which includes how well the mother taught her infant during a play session; and 2) the in depth analysis of four mothers' home visits across 12 months of time.

The 12 month language data.

The research team collected data from the participants prenatally through the child's first year of life. Along with the other data that were collected, when the child was 12-months old, the researchers made a visit to the family's home and recorded the mother playing with her infant as she normally would. From these videotapes, researchers selected the best five minutes of the play session and then created a language transcript of those five minutes. Using the recorded play sessions and the language transcripts, researchers at the University of Central Florida viewed the videotapes along with the transcripts and coded the mother using teaching codes to determine the quality of language during the play sessions. In order for the mother's utterances to be considered a code, the utterances had to be under joint attention, "sharing a focus

of attention on a single object with another person” (Fogel, 2011, p. 238). Once under joint attention, the teaching utterances were coded into three categories:

- D1 codes are considered descriptive teaching. The mother describes, in concrete terms what the child is looking at or doing. This can also include yes and no questions. For example, “dog” or “Is that a dog?”
- D2 codes are commands. The mother directs the infant’s attention or behavior. For example, “Pick up the block” or “Look at the doll.”
- D3 codes involve the mother asking for the infant to do something or if the mother asks the child a question that cannot be answered with a yes or no. For example, “Would you pass me the block?” or “Where is the ball?”

In order to explain the next level of data collection, the following table of results is inserted here. See Table 1.

Table 1: All Adolescent Intervention Mothers and Their D Codes

All Adolescent Intervention Mothers and Their D Codes at the 12 month Visits					
Mother	Age at 12 Month Visit	D1 Code	D2 Code	D3 Code	Total Teach Utterances
A	17	5	12	1	18
B	15	15	4	0	19
C	19	10	17	5	32
D	17	10	24	0	34
E	17	15	14	11	40
F	17	37	7	4	48
G	19	25	12	12	49

If you refer to Table 2 you will see the mean and median scores of all of the adolescent intervention mothers in the intervention.

Table 2: Mean and Median of D Codes at 12 Months for Adolescent Intervention Mothers

Mean and Median of D Codes at 12 Months for Adolescent Intervention Mothers				
	D1 Codes	D2 Codes	D3 Codes	Total Teaching
Mean	16.71	12.86	4.71	34.29
Median	15.00	12.00	4.00	34.00

From the seven mothers, I selected two mothers who did well with teaching their infant during the play session, and two mothers who did not do so well with teaching their infant through play. This took into account the quality of teaching that occurred during the play sessions. For example, if a mother used a variety of teaching utterances versus relying on just one type of utterance, she was considered at a higher level of teaching than a mother who remained at one level of teaching. Many adults who are teaching 12-month old children use a skill called scaffolding to teach the infants. The mothers who use scaffolding start out stating easy statements (D1) and then add moderately challenging directives (D2) and then finally add some requests that are definitely challenging (D3) in order to take their child beyond the child's current developmental level. A lack of scaffolding is best exemplified with Mother F. Although she scored second best when looking at the total number of teaching utterances, the reason she was not selected as one of the best was because she did not have a variety of teaching challenges in her play session.

Table 3: Mothers Selected for Study

Mothers Selected for Study					
Mother	Age at Prenatal Visit (Age at the 12 month visit)	D1	D2	D3	Total Teaching Utterances
1	17 (19)	25	12	12	49
2	16 (17)	15	14	11	40
3	14 (15)	15	4	0	19
4	15 (17)	5	12	1	18

In summary, I selected four mothers from the 12month language data collection to study their home visitation files. Table 3 displays the four mothers selected for this study: two mothers who scored higher than the mean, and two mothers who scored lowest.

Home visitation records data collection (Culp et al., 2004)

I reviewed the four mothers' home visitation files by reading the information given by the primary researchers (forms and measures) and by reading the information given by the home visitors (home visit record sheets). The amount of detail I garnered is reflected in the Case Studies under the Results sections.

Measures collected by researchers.

Mother demographics (Culp et al., 2004).

The researchers collected data on the mother's age, race, marital status, birth place, education, employment, and household. It also includes whether or not the mother had a boyfriend or if she knew who the father of the infant was.

Father demographics (Culp et al., 2004).

This form is similar to the mother's form. It includes data on the father's age, race, birth place, marital status, education, and employment. This form is only used in the prenatal visit.

Perceived Maternal social support

The mothers' support was measured using the Maternal Social Support Index (MSSI; Pascoe, Ialongo, Horn, Reinhart, & Perradato, 1988). It assesses the mothers' perceived social

support both quantitatively and qualitatively. Two questions were of high interest to this study:

1) How many people can you count on to help you? and 2) Do you feel this is enough?

Infant file (Culp et al., 2004).

This form contains information about the birth of the infant.

Infant health care and development.

This contains information about the child's health, doctor's visits, and emergency visits (Culp et al., 2004). When the infants were 12-months of age, the Denver II (Frankenburg & Dodds, 1998) developmental screening test was included.

Community services (Culp et al., 2004).

The number of community resources were studied and counted. The researchers visited the mother prenatally, when the child was 6-months old, and when the child was 12-months old. During the three researcher visits, data was collected regarding services that were being utilized by the mother, services she used in the past, services of interest, and services that were not of interest to the mother. For this study, the number of services being utilized was of interest.

Income (Culp et al., 2004).

All the mothers in this study were at or below poverty levels for the state of Oklahoma for most of the study's duration. It is possible that they started out in their parent's homes with higher incomes, but all the families were close to poverty.

Home visitor data collection.

Home visitation record forms (Culp et al., 2004).

The Home Visitation Records are forms that the child development specialists completed. The information reflected what occurred during each home visit from the 6-month visits to the 12-month visits. These forms included data on what topics were covered, how much time was spent on the visit and on each topic, the level of the mother's distraction, time spent on treatment, and additional information the home visitor noted on the form. This form was not filled out in front of the participant but immediately after the home visit. For this study, I collected the topics that were discussed and how much time was spent on each topic. I collected data on the time spent on child development lessons, maternal role lessons, and also time spent on life course and crisis management.

Data Analysis

As indicated previously, I selected the following four research questions which reflect my interests in understanding why the four mothers who went through the same intervention had different teaching levels at the 12 month play interaction:

- 1) How many minutes did the home visitor teach child development and maternal role?
- 2) Did the mother perceive that she had enough social support during this time?
- 3) How many community resources did the mother use?
- 4) Was the infant healthy and within normal developmental range?

In order to answer these questions, I engaged in the following data analysis:

For the first research question, I looked at the home visitation forms that the child development specialists had to fill out after each visit, and took the percentages from each visit and converted them into minutes spent with the home visitor. I then added the total number of minutes, per mother, to calculate the mothers' total time spent on each topic and total time spent with home visitor. I noticed that Mother 3 had much more time spent with her home visitor. In order to compare her with the other mothers, I decided to calculate the overall percentages of time spent per topic. From these numbers I was able to see which topics mothers spent the most or the least amount of time on.

For the second research question, which focuses on the mother's perception of her social support, I decided to include information from the Maternal Social Support Index. Within this form was the mothers' satisfaction with the adults they shared regular conversations with, their perceptions on the number of family members seen on a weekly basis, who she felt supported her most, and the mothers' opinion on her own mother's level of support.

The third research question involves the number of community resources that the mothers utilized from their prenatal visit through their infants' first birthdays. I provide a total number of resources utilized, as well as the number used at each visit.

In order to answer the fourth research question I looked through the forms that involved the infants' health and development. From these forms I determined if the infant was healthy and if the infant was developing normally according to the Denver II screening tool.

Chapter IV

Results

Case Study Mother #1 and Case Study Mother #2 are the mothers who exhibited the highest quality of teaching utterances among the adolescent intervention group. Case Study Mother #3 and Case Study Mother #4 are the mothers who exhibited the lowest quality of teaching utterances a month the adolescent mothers.

Case #1

Prenatal through infant's birth.

Mother demographics and household.

Mother 1 was 17-years old when she began the home visitation program. Her marital status was single, although she was dating the father of her child, who was 24-years old at the time. She was born in the United States and is Caucasian. During the prenatal period, Mother 1 lived in a household that consisted of her mother, her friend, her brother, and her sister. In this household, there were five rooms and five individuals. Mother 1 communicated that she wanted to be pregnant later in life and planned on using birth control pills to prevent future pregnancies.

She had completed 12 years of education, and she was enrolled in an educational program. She had planned to continue her education when her infant was born. Mother 1 had been employed for a year and half during the prenatal visit and had not stopped working because of her pregnancy. Mother 1 predicted that she would be somewhat likely to reenter the workforce after the birth of her child.

Father demographics.

According to Mother 1, Father 1 was 24-years old and had 17 years of education. He was not enrolled in an educational program; however, he was working in a full-time job. Mother 1 saw or spoke to Father 1 daily.

Perceived maternal social support.

In this household, Mother 1 stated that generally someone else prepared meals, went grocery shopping, fixed things around the house, and took care of any car trouble. She shared the responsibility of working outside of the home and paying the bills, and she was responsible for cleaning inside the home, letting her future child know right from wrong, taking him to the doctor, and putting him to bed.

Mother 1 saw approximately five relatives a week, which she felt was not enough. She would have liked to see her relatives more often. In a time of need, Mother 1 could count on ten or more people. If she needed to have someone care for her child for several hours, she reported that she could call on five people. Some of these people she relied on resided within her neighborhood.

There were other adults besides her boyfriend that she was able to have regular talks with and she was satisfied with the conversations they shared. However, she was very dissatisfied with the talks that she shared with her boyfriend. She did not belong to a religious group or social group, but she attended an educational group more than once a month and a political group about once a month

Community services.

Mother 1 was using five community resources. These included medical services for her and the child, as well as services that included nutrition information, WIC, housing assistance, and childbirth or prenatal classes. She did not know about Indian health services, public health services, TANF, child care, emergency child care, Head Start, Vocational Rehabilitation, or disability benefits. She also did not know about community resources for food, clothing, toys, or furnishings. She mentioned that in the past she used some sort of counseling or support group and transportation assistance. She was interested in parenting or child care classes, parent support groups, Medicaid, adult education programs, counseling or support group, and financial assistance. Mother 1 showed no interest in employment programs, violence programs, drug and alcohol programs, Sooner Start, legal aid or services, and child protective services.

Infant file.

Mother 1 gave birth to a male infant who weighed 6 pounds 15 ounces and had a gestational period of 39 weeks. The infant was born with no defects, but the mother and infant both required oxygen. Mother 1 had a decreased heart rate, and the infant had an increased heart rate.

Six month update.

Mother update.

Mother 1's marital status was still single, and she no longer had a boyfriend. Mother 1 moved out of her parents' home; she reported only two people living in her four room household, herself and the infant. She claimed to have 11 years of education (12 years of education were

claimed prenatally). She did not have a high school diploma or GED, but she was enrolled in an educational program. She planned on continuing her education. Mother 1 was unemployed and not looking for work but reported that she was very likely to return to work within the next six months.

Father update.

Mother 1 and Father 1 no longer saw or spoke to each other daily but continued to see or speak to each other once a week. According to an OSU staff member, “MOB and FOB share custody of child. FOB has him 4 days of each week.” The staff member also noted that: “Baby is at daycare or with FOB when MOB is at school.”

Perceived maternal social support.

In the previous household, Mother 1 shared many tasks or had many tasks done for her. In her new household with her infant, she was responsible for almost everything. She was responsible for fixing meals, going to the grocery store, fixing things around the home, cleaning inside the home, and paying the bills. She had all of those tasks on top of letting the child know right from wrong, taking the child to the doctor, and putting the child to bed. She mentioned that no one worked outside the home.

Mother 1 reported that she saw six relatives once a week, which she felt was about right. In a time of need, she stated that she could count on help from ten or more people. However, only two people would be able to care for the child for several hours if needed. All of these reliable people resided within her neighborhood. Mother 1 no longer had a boyfriend, but she

had another adult to talk to and she was very satisfied with the regular talks that she had with them.

She was now involved in a religious group and met with them about once a month. Her educational and social groups met more than once a month.

Community services.

At the six month mark, Mother 1 was using eleven community services. These resources included medical services for her and the child, public health services, nutrition information services, parenting or childcare classes, WIC, Medicaid, housing assistance, an adult education program, child care, disability benefits, and financial assistance. Mother 1 reported that she had used emergency childcare and legal aid in the past. She showed interest in Head Start and was not interested in Indian health services, parent support groups, TANF, employment programs, domestic violence programs, drug/alcohol treatment, counseling, transportation assistance, Head Start, child protective services, and vocational rehabilitation.

Infant health care.

Mother 1 was very confident in her ability to take her infant to his appointments at the doctor's office when he was not sick. She felt that people somewhat helped her with taking her child to his regular check-ups. She somewhat agreed with taking the child to the doctor when he was not sick to prevent future problems and that she would be very likely to take the baby in for his regular check-ups. No one close to Mother 1 would interfere with or discourage her from taking her child in for his check-ups.

The mother reported to have taken the child twice to the hospital emergency room. The first time she took him was during the month he was born because he stopped breathing. The second time she took him, the child had a fever of 104.9.

Twelve month update.

Mother teaching quality.

Mother 1 scored high on teaching her infant during a free play session. She had a total of 49 teaching utterances and combined all levels of teaching, 25 D1's, 12, D2's, and 12 D3's.

Mother update.

Mother 1 married in the last 6 months and had recently separated from her husband, who was not Father 1. At the twelve month visit, she was living with a friend in a three room home. She was claiming 15 years of education. Mother 1 had received her GED, but was no longer enrolled in an educational program. She planned on continuing her education and had not worked since the birth of her infant and was seeking employment. Mother 1 was pregnant with her second child.

Father update.

Mother 1 reported talking to Father 1 at least once a week. According to notes taken by an OSU staff member, Mother 1 continued to share custody with him. Their arrangement was for Mother 1 to have the infant during the day and Father 1 to have the infant at night.

Perceived maternal social support.

At this point, generally, the mother fixed meals, purchased groceries, taught her child right and wrong, repaired things around the house, cleaned inside of the home, put the child to bed, and took care of car trouble. Generally, another individual worked outside of the home. Someone else and Mother 1 shared the responsibilities of paying bills and taking the child to the doctor when he was sick

Mother 1 saw six relatives per week and stated that she wanted to see them more often. In a time of need, she could count on five people, and there were three people that she could entrust with caring for her infant for several hours, if needed. None of these people resided within her neighborhood.

Mother 1 had married another man, who was not Father 1, between the six and twelve month visits and was still legally married to her husband; however, she was in the process of divorcing him. She was very dissatisfied with the conversations they shared; however, she had another adult, with whom she had regular talks and with whom she was very satisfied. She also belonged to a religious group and an educational group that both met more than once a month. Her mother had provided the most social support this last year. She said her mother had done a lot, but that her mother's support was not enough.

Community services.

Mother 1 reported using medical services for herself and her infant, Indian health services, public health services, nutrition information services, parenting or childcare classes, and childcare. In the past she had utilized a parent support group, TANF, Medicaid and Head Start. She showed interest in housing assistance, a domestic violence program, Sooner Start, and

vocational rehabilitation. She was not interested in adult education programs, employment programs, drug/alcohol treatment, counseling, transportation assistance, community resources for food, clothing, toys, or furnishings, emergency childcare, legal aid, child protective services, childbirth or prenatal classes, disability benefits, or financial assistance.

Infant health care and development.

The infant had two trips to the emergency room during this period. The first visit was made because the infant was experiencing a high fever and a respiratory infection. The second visit was due to a high fever accompanied by a rash. The child also had ear infections during this time. According to the Denver II screening tool, this infant was within normal range.

Additional information.

A quote from OSU staff member stated that, “This was the fourth attempt to interview participant. She no-showed at designated interview location, but tracked her down to a residence where she was babysitting. MOB has recently left husband due to extremely abusive relationship. MOB living with a friend and child living with FOB b/c of abuse of MOB’s current husband. At the 12 month update mark MOB just separated and has filed for divorce.”

Case #1 summary.

Number of minutes spent by home visitor with the mother:

The home visitor spent a total of 432.5 minutes with the mother between the six and twelve month marks on the four issues of interest (child development, maternal role, life course, and crisis management). She covered child development for 54.33% of the time that she spent with Mother 1 and spent 6.94% on teaching the mother about her maternal role. Aside from

these two areas, the home visitor also spent time with the mother teaching her about her life course and assisting Mother 1 to manage her crises. Mother 1 spent 21.39% of her time managing crises with the home visitor and 10.34% receiving assistance planning her life course.

Perceived maternal social support variable across time.

Mother 1 had a moderate level of support but could have used more based on the crises that she faced. When researchers asked Mother 1 how many relatives whom she saw weekly, she answered five prenatally and six for the six and twelve month visits. However, during the prenatal and twelve month visits she felt like she wanted to see them more often and felt it was about right during the six month visit. Mother 1 seemed to require more support to help her through her divorce and abusive relationship she was dealing with during the twelve month visit.

Community services.

Mother 1 utilized between five to 11 services, at one time, across the span of the home visitation program. In total, Mother 1 utilized 13 community services. Prenatally, she began with five community services and by the six month visit she had eleven services that she utilized. At the twelve-month visit her number of services utilized dropped back down to six community services utilized. These services ranged from medical services, parenting classes, and WIC.

Infant's health care and developmental age.

This infant was healthy and within normal development range. Mother 1's infant was born without complications and had made some visits to the emergency room. The causes for his visits seem to be isolated incidences and not related to health concerns for the infant.

Case #2

Prenatal through infant's birth.

Mother demographics and household.

When Mother 2 began the intervention program she was 16-years old. She was a Caucasian woman who was born in the United States and who had never been married. Although her marital status was single, she was dating Father 2 at the time of the prenatal visit. During the prenatal period, Mother 2 lived within a household of five members, which included herself, her brothers, her mother, and her stepfather. She lived in a house with seven rooms and had parents with a modest income. She noted that she wanted to be pregnant later in her life and planned on using birth control pills to prevent future pregnancies.

At this point, she had completed eleven years of education and was enrolled in an educational program. She planned on continuing her education after the birth of her infant. She also had a job, which she was not working during the prenatal visit. She had worked for about three months at minimum wage. She reported that her pregnancy was not the reason that she stopped working and that she was not currently looking for a job. She also said that she would be somewhat likely to return to work six months after the birth of her infant.

Father demographics.

Father 2 was 17-years old at the prenatal visit and had no other children. He was a Native American who was born in the United States. He was unemployed but was enrolled in some type educational program. He had completed 12 years of education. Mother 2 reported that she saw or spoke to the Father 2 daily and that they are dating.

Perceived maternal social support.

Mother 2 noted that she generally had meals prepared for her by another individual and that they generally took care of grocery shopping. She planned on letting her child know right from wrong and planned on sharing the responsibility of cleaning inside, taking the child to the doctor's office, or putting the child to bed with someone else. Other than cleaning the home, she did not have other responsibilities since her infant was not born yet. Typically, someone else would take care of the bills, work outside of the home, and take care of car problems.

Mother 2 stated that she would see ten or more relatives once a week. She also communicated that she thought that number was about right, and she said six people would be willing to help her in a time of need; four of those six would care for the child for several hours, if needed. Most of these individuals were in her neighborhood. There was an adult, aside from her boyfriend, with whom she could talk, and she was satisfied with the conversations that they shared.

Mother 2 met more than once a month with a religious group and with student groups at school. She did not belong to any social or political groups, but she was attending birth classes more than once a month. Overall, Mother 2 seemed to have numerous people in her life with whom she was able to interact at the prenatal stage, and she perceived this as enough social support.

Community services.

Mother 2 was utilizing five community services, medical services for her, Indian health services, nutrition information services, parenting classes, and childbirth or prenatal classes. She reported that there were no services with which she was unfamiliar and that she was had not

utilized any services in the past that she was not using at the time. She showed interest in WIC and Sooner Start. Mother 2 showed no interest in public health services, parent support groups, TANF, Medicaid, housing assistance, adult education programs, employment programs, domestic violence programs, drug/alcohol treatment, counseling, transportation assistance, community resources for food, clothing, toys, or furnishings, emergency childcare, childcare, Head Start, legal aid, child protective services, vocational rehabilitation, disability benefits, or financial assistance.

Infant file.

Mother 2 gave birth to a female infant who weighed 6 pounds 2 ounces. This child had a gestational period of 38 weeks. The infant was born with no defects. Mother 2 reported no birthing complications; however, she said that the child was born with her “face upside down.”

Six month update.

Mother update.

In the past six months, Mother 2 married and moved in with her husband, Father 2, and her infant. The three individuals shared a four room home, about which a researcher commented that it was “very clean.” Mother 2 had eleven years of education and had not yet received her GED or high school diploma. However, she planned to continue her education and was enrolled in an educational program. She was not employed during the six month visit and was not searching for employment. She reported being not at all likely to return to work in the next six months.

Father update.

Father 2 had moved in with Mother 2 and their infant and, they saw or talked to each other daily.

Perceived maternal social support.

Mother 2 seemed to have divided her tasks with another individual. For instance, she typically took care of letting the child know right from wrong, cleaning the inside of the house, taking the child to the doctor, and putting the child to bed. Another individual generally fixed meals, shopped for food, fixed things around the house, worked outside of the home, paid the bills, and took care of car problems. She saw about five relatives once a week, which she still felt was about right. In times of need, ten or more people would be reliable sources for her, and she now had four people she could entrust to care for her child for several hours if she needed. Only some of her reliable people, as compared to most prenatally, resided within her neighborhood.

Mother 2 was still satisfied with her conversations with her boyfriend, and she still had another adult, aside from him, with whom she could have regular talks and still felt satisfied with the conversations that they shared. She took part in a religious group about once a month and was a part of an educational group that met more than once a month. She no longer attended birthing classes. The mother perceived her social support as enough.

Community services.

Mother 2 was utilizing seven community services, Indian health services, nutrition information services, parenting or childcare classes, a parent support group, WIC, housing

assistance, and an adult education program. There were no services with which she was unfamiliar and showed interest in medical services for her and her child, public health services, Medicaid, community resources for food, clothing, toys, or furnishings, emergency childcare, childcare, Head Start, and Sooner Start. Mother 2 had not utilized any services that she was currently not using at the six month visit, and she showed no interest in TANF, employment programs, domestic violence programs, drug/alcohol treatment, counseling, transportation assistance, legal aid, child protective services, childbirth or prenatal classes, vocational rehabilitation, disability benefits, or financial aid.

Infant health care.

Mother 2 reported being very confident in her ability to take her infant to the doctor's office when she was not sick and when the infant needed to go in for her check-ups. She also communicated that she had lots of help from other people with getting her child to the doctor's office. Mother 2 had no one who would interfere with or discourage her from taking the infant in for her check-ups. When asked if she agreed or disagreed, Mother 2 strongly agreed that taking an infant to the doctor or nurse for appointments when they were not sick to help prevent future problems was important.

During the first six months, the infant was taken to the emergency room once. When she was about 3-months old, the infant had both a sinus and ear infections. When asked if the child was taken anywhere else not already mentioned in the survey, the mother said that she had taken her in for seizures sometime during the first six months.

Additional Information.

“MOB & FOB very good with baby. House was very clean. Infant didn’t say much but motor skills were very good.” – OSU Staff

Twelve month update.

Mother teaching quality.

Mother 2 scored high on teaching her infant during a free play session. She had a total of 40 teaching utterances, and she combined all levels of teaching, 15 D1’s, 14 D2’s, and 11 D3’s.

Mother update.

Mother 2 was still married and living with Father 2, although on the same visit she reported not having a boyfriend or husband on her maternal support index form. The family was still living in a four room house with the same occupants as the six month update, Mother 2, child, and Father 2. Mother 2 was enrolled in an educational program but did not have a GED or High School Diploma. According to an OSU staff member, “The mother of the baby will graduate from High School in May”, which was two months away from the day of the quote from the OSU staff member. Mother 2 had returned to work for three months at \$5.25 per hour, but “is currently not working, with school and work she felt like she didn’t spend enough time with baby.” She reported that she was very likely to return to work within the next six months, but was not searching currently for employment. The mother was using birth control now and was not pregnant nor had she been pregnant since the birth of her first child.

Father update.

Mother 2 reported that she was still married and that her husband was the father of her child when she filled out the demographics form, but when she filled out the social support form, she claimed to have no husband or boyfriend and that she was dissatisfied with the talks that they had. Both forms were filled out on the same day, so the data conflicts. She saw or talked to Father 2 daily at the twelve month mark.

Perceived maternal social support.

There also had been a slight shift in the distribution of responsibilities within the household. The mother shared the tasks of fixing meals, shopping for groceries, letting the child know right from wrong, and putting the child to bed with another individual. Another individual typically took care of car trouble, the payment of bills, worked outside of the home, and repaired things around the home. Finally, Mother 2 generally took the infant to the doctor and cleaned inside of the home.

She was now seeing nine relatives once a week and she felt that she would like to see them less often. In times of need, Mother 2 felt like she could count on ten or more people, six of those people would be able to care for the child for several hours if needed. She still reported that some of these reliable individuals live within the neighborhood. At this time, Mother 2 felt dissatisfied with the conversations with her husband or ex-husband, because there was some conflicting data. Mother 2 had other adults with whom she could talk and felt satisfied with the person she talked to most.

Mother 2 was meeting with a religious group as well as an educational group more than once a month. She had joined a social group with which she met about once a month. Mother

2's mother-in-law provided the most support for her in the last year, but her own mother still provided quite a bit of support, according to the Mother 2. In fact, Mother 2 felt that her mother's support was too much.

Community services.

Mother 2 was utilizing six community services, medical services for her and her child, Indian health services, nutrition information services, parenting or childcare classes, WIC, and an adult education program. She showed interested in parent support groups, Head Start, and Sooner Start. She no longer used housing assistance or childcare. She showed no interest in TANF, Medicaid, employment programs, domestic violence programs, drug/alcohol treatment, counseling, transportation assistance, community resources for food, clothing, toys, or furnishings, emergency childcare, legal aid, child protective services, child birth or prenatal classes, vocational rehabilitation, disability benefits, or financial assistance. She did lose interest in some services, but most of the services she was not interested in remained about the same throughout.

Infant health care and development.

Mother 2 usually took her infant to the health department or a community clinic for her routine checkups. Within the last six months, the infant has experienced asthma and croup/bronchitis. The mother reported that, in the last six months, she was worried about her child's ear infections and breathing. The mother stated that, in the last six months, a health care provider had communicated to her that her child was not gaining weight adequately.

Mother 2 had also taken her child to the hospital, four times in the last six months. The first time she took her infant to the hospital she took her in for an ear infection. Two months later the child went in two separate times, which were only a month apart, for a stomach virus. Then a month later the child was brought to the hospital for a sinus infection. According to the Denver II screening tool, this infant was within normal range.

Case #2 summary.

Number of minutes spent by home visitor with mother:

The home visitor spent a total of 472.5 minutes with the mother between the six and twelve month marks on the four issues of interest (child development, maternal role, life course, and crisis management). She covered child development for 50% of the time that she spent with Mother 2 and spent 15.08% on teaching the mother about her maternal role. Aside from these two areas, the home visitor also spent time with the mother teaching her about her life course and assisting Mother 2 to manage her crises. Mother 2 spent 3.17% of her time managing crises with the home visitor and 31.75% receiving assistance planning her life course.

Perceived maternal social support variable across time.

Mother 2 had a high level of support and may have felt it was more than necessary. Prenatally, Mother 2 reported that she would see about ten or more relatives per week and stated that it felt about right. During the six month visit, she reported seeing five relatives per week, which she felt was about right. Finally, at the twelve month visit, she reported seeing nine relatives per week, and she felt like she would like to see them less often. Mother 2 never

seemed to think she needed to see any more family members; she remained at “about right” or “less often” on this scale.

Community services.

Mother 2 utilized between five to seven services, at one time, across the span of the home visitation program. In total, Mother 2 utilized ten community services. Prenatally, she began with five community services and by the six month visit she had seven services that she utilized. At the twelve-month visit her number of services stayed at seven community services utilized. These services ranged from medical services, a parent support group, and WIC.

Infant’s health care and developmental age.

Mother 2’s infant had some health concerns the first year of life but was developing normally according to the Denver II screening tool. Mother 2’s infant was born with no complications, had a few visits to the emergency room, and had some health concerns.

Case #3.

Prenatal through infant’s birth.

Mother demographics and household.

When Mother 3 began the home visitation program she was 14-years old. She was a Caucasian woman born in the United States and had never been married. She was not dating anyone during the researcher’s visit, but she knew her past boyfriend was the father of her child. In her household, Mother 3 lived with six people, which included her mother, sisters, grandmother, and grandfather. There were a total of four rooms in the household. When asked

about her feelings towards the pregnancy, she answered that she wanted to be pregnant later in life. She planned on using abstinence and the depo provera shot to prevent future pregnancies.

At this point Mother 3 had completed seven years of education and was enrolled in an educational program. She planned on continuing school after the her infant was born and had not been employed, most likely because she was only 14-years old at the time. Mother 3 is not looking for a job, but she said she was somewhat likely to find work within six months of the infant's birth.

Father demographics.

Father 3 was 15-years old at the time of the prenatal visit. He was a Caucasian male who was born in the United States. At the prenatal visit, he was single and had no other children. He had completed eight years of education and was enrolled in an education program. Like Mother 3, he also was unemployed.

Perceived maternal social support.

Mother 3 did not have any responsibilities that were generally hers to do. However, she shared the responsibility of fixing meals. Generally, another individual shopped for groceries, repaired things around the house, cleaned inside of the house, worked outside of the home, paid the bills, and took care of car trouble. Mother 3 was the first mother to check “no one” during the prenatal period for responsibilities that involve the child, which made sense because the child was not born yet.

Mother 3 reported to see seven relatives once a week or more often. She felt that she would have liked to see her relatives less often. She could count on three people in a time of

need and one of those people would be able to care for the child for several hours if needed. All of the people that she could count on were living within her neighborhood. Although she had separated from Father 3, Mother 3 had regular talks with another adult and was satisfied with the regular conversations they had. Mother 3 was part of a religious group, educational club, a social group, and a political group all of which she met with less than once a month.

Community services.

The only service that Mother 3 utilized was WIC, and she had used medical services for herself in the past. She had shown interest in nutrition information services, Medicaid, emergency childcare, Head Start, child birthing or prenatal classes, and financial assistance. She did not know about public health services, community resources for food, clothing, toys, or furnishings, Sooner Start, child protective services, or vocational rehabilitation. She showed no interest in Indian health services, parenting or childcare classes, parent support groups, TANF, housing assistance, adult education programs, employment programs, domestic violence programs, drug/alcohol treatment, counseling, transportation assistance, childcare, legal aid, or disability benefits.

Infant file.

Mother 3 gave birth to a male baby who weighed 5pounds 9ounces. The infant had a gestational period of 36 weeks. He was four weeks premature so he required supplemental oxygen and had poor nipping. At first, the infant had medical trouble due to swallowing some amniotic fluid. He stayed in the hospital on antibiotics and had difficulty breathing. The file does not say how many days the infant stayed in the hospital.

Six month update.

Mother update.

Mother 3, at the six month update mark, was still single and without a boyfriend. Mother 3's household consisted of four people, which included herself, her mother, and her stepfather, as well as her infant. They shared a two room household. The child's mother had now completed eight years of education and was not currently enrolled in an educational program, although she planned on continuing her education. Mother 3 had not worked and did not plan on working or searching for a job at the time of the six month visit. However, she was planning on finding work within the next six months.

Father update.

She still saw or talked to Father 3 at least once a week, but not daily.

Perceived maternal social support.

The mother had taken on some new responsibilities since the prenatal update. She cleaned the inside of the home, took the child to the doctor, and put the child to bed. She shared the responsibilities of fixing meals and fixing things around the house with another individual. Generally, someone else shopped for groceries, worked outside of the home, paid the bills, and took care of car trouble. What was most interesting was that she noted that no one let the child know right from wrong.

Mother 3 saw about five relatives once a week or more often. She felt that this was about right. She could count on ten or more people in a time of need and two of those people would be able to care for her child for several hours if needed. Unfortunately, none of these people were

in her neighborhood. Mother 3 reported that she had no significant other and did not have an adult to have regular talks with at the six month visit. She was involved in a religious group that she met with less than once a week.

Community services.

Mother 3 reported that none of the services were unfamiliar to her and that she had not used any services that she was not still using. During the six month visit, Mother 3 was utilizing three community services, public health services, nutrition information services, and WIC. She was showing interest in medical services for herself and the child and adult education programs. She showed no interest in Indian health services, parenting or childcare classes, parent support groups, TANF, Medicaid, housing assistance, employment programs, domestic violence programs, drug/alcohol treatment, counseling, transportation assistance, community resources for food, clothing, toys, or furnishings, emergency child care, childcare, Head Start, Sooner Start, legal aid, child protective services, child birth or prenatal classes, vocational rehabilitation, disability benefits, or financial assistance.

Infant health care.

Mother 3 was confident that she could take her infant to the doctor when needed and for regular checkups. She received a lot of help taking her child to his appointments at the doctor's office, and she strongly agreed with taking the child to his regular check-ups even if he was not sick because it would prevent future problems. Mother 3 reported being very likely to take the infant to the doctor's office even if he was not sick. No one close to Mother 3 would discourage her from taking her baby to the doctor's office for his regular check-ups.

Since the birth of the child, Mother 3 had taken the infant to the hospital emergency room twice. The first time was when the child was about 1-month old. The infant had turned blue because of poor circulation. The second time the infant was taken to the emergency room he was about 5-months old, and he had fallen off the bed. Mother 3 communicated to the researcher that he was alright. At about 5-months, the child was admitted to the hospital and had to stay at least one night because he had pneumonia and there was mucous in his lungs. Mother 3 also had reported that his lungs were not developed.

Additional information.

“She spends 90% of her time at her friend’s house. I would consider her friend’s house safe while he’s only 6 months, but by 1 year could be unsafe. There are massive holes in some of the walls which he could crawl into. Many animals – cats, dogs, mice, gerbils – roaming about – unsanitary. But she really wouldn’t talk much about her actual home. For whatever reason, she doesn’t like to be at home. She wouldn’t specify.” – OSU Staff Member

Twelve month update.

Mother teaching quality.

Mother 3 scored low on teaching her infant during a free play session. She had a total of 19 teaching utterances. Mother 3 did not utilize all the levels of teaching and did not show much variation. She had 15 D1’s, 4 D2’s, and 0 D3’s. The majority of her teaching utterances were descriptive utterances.

Mother update.

Mother 3 was still single and without a boyfriend at the time of the twelve month visit. She lived in a household that housed six individuals, herself, her mother, stepfather, sisters, and infant. There were seven rooms within this household. Mother 3 had eight years of education and was not enrolled in any type of educational program, although she still planned on continuing her education. Mother 3 had found a job and had been working full time for about a month making minimum wage. She was using birth control pills to prevent another pregnancy and had not been pregnant since her first child.

Father update.

Mother 3 only saw or spoke to Father 3 less than once per week.

Perceived maternal social support.

Mother 3 shared the responsibility of fixing meals, grocery shopping, cleaning inside the house, fixing things around the house, working outside of the home, and paying the bills with someone else. She let the child know what was right and wrong, and took the child to the doctor. Generally, another individual put the child to bed and took care of car trouble. Mother 3 now saw ten or more relatives once a week or more often and felt like she would like to see them less often. She could count on seven people in a time of need, and two would be able to care for the child for several hours if needed. All of these people resided within her neighborhood.

Although she did not have a significant other at the twelve month visit, Mother 3 had an adult with whom she could have regular conversations and was satisfied with their talks. She was no longer involved in any groups. Mother 3 reported that, over the past year, her own

mother had provided the most support to her. She felt that it was quite a bit of support, and that it was about right.

Community services.

At this point, Mother 3 had used parenting or childcare classes and WIC and was utilizing four community services, medical services for her and the child, public health services, nutrition information services, and Medicaid at the time of the 12 month visit. There were no services with which she did not know. Mother 3 had shown interest in adult education programs, Head Start, and Sooner Start, and she had reported that she was not interested in the remaining services, Indian health services, parent support groups, TANF, housing assistance, employment programs, domestic violence programs, drug/alcohol treatment, counseling, transportation assistance, community resources for food, clothing, toys, or furnishings, emergency child care, childcare, legal aid, child protective services, child birth or prenatal classes, vocational rehabilitation, disability benefits, or financial assistance.

Infant health care and development.

The infant was taken to the health department or a community clinic for checkups. He had experienced asthma in the last six months. The infant had not been to the emergency room in the last six months. The Denver II score was within normal range.

Additional information.

Infant was watched by his grandmother and great grandmother. (Childcare Arrangement)
“House was very dirty and smelled like animals. On the front porch they had a fowl pen with chickens or something in it. Insects in the house – gnats, flies, fleas. Family plans to move soon.

MOB was frustrated during video that child ‘he doesn’t want to play with me.’ She responded by taking his toys away. MOB pays some attention to the child but as the video shows, often she is watching T.V. rather than him. MOB calls the child names – perhaps in fun. She calls him a meanie and other things. When he pulls her hair, she pulls his in an attempt to make him stop. FOB was recently put in prison but writes occasional letters.”

Case #3 summary.

Number of minutes spent by home visitor with the mother:

The home visitor spent a total of 1,313.8 minutes with the mother between the six and twelve month marks on the four issues of interest (child development, maternal role, life course, and crisis management). She covered child development for 41.37% of the time that she spent with Mother 3 and spent 38.90% on teaching the mother about her maternal role. Aside from these two areas, the home visitor also spent time with the mother teaching her about her life course and assisting Mother 3 to manage her crises. Mother 3 spent 4.41% of her time managing crises with the home visitor and 15.32% receiving assistance planning her life course.

Perceived maternal social support variable across time.

Mother 3 wanted to see people less often than she did during the first year of life; however, 12 months, she felt satisfied. Prenatally, Mother 3 saw seven relatives per week and felt that she would like to see them less often. At the six month visit, Mother 3 saw about five relatives per week and felt that it was about right. At the 12 month mark, Mother 3 saw about ten or more relatives per week and felt like she would have liked to see them less often. This mother did not seem to require any more support than what she had.

Community services.

Mother 3 utilized between one to three services, at one time, across the span of the home visitation program. In total, Mother 3 utilized 5 community services. Prenatally, she began with one community services and by the six month visit she had three community services that she utilized. At the twelve month, Mother 3 gained an additional service putting her at four community services utilized. These services ranged from medical services, nutrition information services, and WIC.

Infant's health care and developmental age.

Mother 3's infant was not healthy during the first year of life and somewhat healthy at 12 months. According to the Denver II screening tool, this infant was developing normally at 12 months. This infant had many complications and health concerns at birth and continued to have health concerns through his first year of life. He had stayed in the hospital after birth, made numerous trips to the emergency room, and was admitted to the hospital once over the span of the home visits.

Case #4

Prenatal through baby's birth.

Mother demographics and household.

Mother 4 was 15-years old at the time of the first home visit. She was a single, Caucasian woman who was born in the United States. Her marital status was single, though she was dating Father 4. Mother 4 lived in a six room house with four individuals, including herself, with her two foster parents, and one child. Mother 4 also stated that she did not want to be

pregnant then or anytime in the future and planned to use birth control pills to prevent future pregnancies.

Mother 4 had seven years of education and was enrolled in an educational program. She planned on continuing her education after the birth of her infant. Mother 4 was unemployed at the time that the program started and reported being somewhat likely to find work once the baby was born. She had been employed for three months and stated that she did not quit because of the pregnancy.

Father demographics.

Mother 4 had a boyfriend at the time, and he was the biological father of the baby. Father 4 was also 15-years old and was a Caucasian born in the United States. He had no other children. The parents of the infant would see or talk to each other less than once a week. He had eight years of education at the time of the prenatal visit. He was enrolled in an educational program and was working.

Perceived maternal social support.

In her household, Mother 4 reported that she was going to be responsible for letting her infant know right from wrong and putting him to bed. Generally, another individual typically, prepared meals, shopped for groceries, worked outside of the home, and paid the bills. Mother 4 shared the responsibilities of fixing things around the house, cleaning the inside of the house, and planned on sharing the responsibility of taking the child to the doctor when he was sick.

With the exception of the relatives with whom she lived, Mother 4 did not see any relatives during the week. She stated that she would like to see other relatives more often. She

could count on ten or more people in a time of need. Four of those ten people would be able to care for the child for several hours if needed. Some of the people she could count on resided within her neighborhood. However, Mother 4 reported having no access to a car if she were to need one.

Mother 4 was satisfied with the conversations she was having with her boyfriend. She did have regular talks with another adult besides her boyfriend, with which she was also satisfied. Mother 4 also met with an educational club or group more than once a month. She was not a part of any other group.

Community services.

At the prenatal mark, Mother 4 used eight community services, medical services for her and the child, public health services, nutrition information services, parenting or childcare classes, WIC, Medicaid, counseling, and child protective services. In the past, she had utilized legal aid. She did not know about domestic violence services and showed interest in parent support groups, TANF, housing assistance, employment programs, community resources for food, clothing, toys, or furnishings, emergency childcare, Sooner Start, child birth or prenatal classes, and financial assistance. She did not show interest in Indian health services, adult education programs, drug/alcohol treatment, transportation assistance, childcare, Head Start, vocational rehabilitation, or financial assistance.

Infant file.

Mother 4 had a male infant that weighed 7 pounds. This infant had a gestational period of forty weeks. The baby had no defects or complications. After the birth of the infant, Mother 4 reported that she planned on using birth control pills to prevent future pregnancies.

Six month update.

Mother update.

At the six month update, Mother 4 had separated from Father 4, and her marital status remained single. She lived in a five room house and indicated that she was no longer in foster care. Within her household resided her four other individuals, her mother and sisters. In this household she lived in poverty. Mother 4 had eight years of education completed and was taking GED classes. She planned on continuing her education. She had not worked since the birth of the infant and was unemployed. She was somewhat likely to return to work in six months.

Father update.

Father was no longer dating Mother 4, but she saw or spoke to her at least once a week, but not daily.

Perceived maternal social support.

At the six month update, Mother 4 shared the responsibilities of fixing meals, grocery shopping, letting the child know right from wrong, cleaning inside the home, taking the child to the doctor, and putting the child to bed. Someone else repaired things around the home, worked outside the home, and paid the bills. They still did not have a car but could get one in a few hours if needed.

She saw seven relatives on a weekly basis and felt that it was about right. In a time of need, Mother 4 could count on ten or more individuals. Six of these people would be able to care for her infant, if needed, for a few hours. All of these people that she could rely on lived within her neighborhood. Although she no longer had a boyfriend with whom she could have regular talks, Mother 4 was still having regular conversations with another adult and was satisfied with them. She was no longer involved in any groups.

Community services.

The mother was familiar with all of the services on the sheet and reported that she had not used any in the past that she was not utilizing at this point. During the six month visit Mother 4 reported that she was utilizing nine community services, medical services for her and the child, public health services, nutrition information services, parenting or childcare classes, TANF, WIC, Medicaid, housing assistance, and adult education. She showed interest in counseling, Head Start, and Sooner Start and showed no interest in Indian health services, parent support groups, employment programs, domestic violence programs, drug/alcohol treatment, transportation assistance, community resources for food, clothing, toys, or furnishings, emergency childcare, childcare, legal aid, child protective services, childbirth or prenatal classes, vocational rehabilitation, disability benefits, or financial aid.

Infant health care.

Mother 4 was very confident in her ability to take her child to all of his doctor's appointments, even if he was not sick. She received a lot of assistance from others to take her child to the doctor's office for his regular check-ups and reported that no one would discourage

her or interfere with her taking her child to the doctor's office for his check-ups. She said that she strongly believed in taking the child to the doctor's even if he was not sick because it could prevent future problems, but she somewhat agreed with the statement: "Taking children to a doctor or nurse for regular check-ups doesn't really help children as long as they show no signs of illness."

Mother 4 had not taken her baby to the hospital or the emergency room in the last six months. She had taken her baby for his check-ups and to a clinic or doctor's office

Additional notes.

"Very Happy baby." – OSU Staff

Twelve month update.

Mother teaching quality.

Mother 4 scored low on teaching her infant during a free play session. She had a total of 18 teaching utterances. Although she utilized each level of teaching at least once, she did not vary the levels of teaching. She had 5 D1's, 12 D2's, and 1 D3. According to these scores, most of her teaching utterances were commands.

Mother update.

Mother was still single but had a new boyfriend, who was not the Father 4. She had eight years of education at the time of the twelve month visit and did not have a high school diploma or GED. She was no longer enrolled in an educational program; however, she did plan on going back to school. Mother 4 was still unemployed, although she was still looking for a job. She felt she was somewhat likely to return to work within the next six months. Mother 4

lived in poverty in a house with five rooms and six individuals, herself, her infant, her mother, sisters, and another relative. The mother was sticking with abstinence as her method of preventing pregnancy but had already given birth to her second child by the time of the twelve month visit. She was not pregnant during the twelve month visit.

Father update.

She did not see or talk to the baby's father at all by the time of the twelve month visit.

Perceived maternal social support.

Mother 4 shared the responsibilities of teaching her child right from wrong, fixing things around the home, cleaning inside the home, taking the child to the doctor, and putting the child to bed. No one was responsible for working outside the home, and someone else prepared meals, shopped for groceries, paid the bills, and took care of car trouble.

Mother 4 saw about five relatives once a week or more often, and she felt that she would prefer it be less often. She could count on eight people in a time of need, and four of them would be able to care for the child for several hours if needed. All of these people resided within the neighborhood.

Mother 4 was satisfied with the regular talks she had with her current boyfriend. She talked with another adult other than her boyfriend, and she was very satisfied with the regular conversations they shared. She did not belong to any groups at the time of the twelve month visit. Her friend had provided the most support during the last year. Mother 4 informed researchers that her mother had provided quite a bit of support and that she felt the level of support was about right.

Community services.

At the twelve month visit, Mother 4 reported that she did not know about emergency childcare and was not showing interest in receiving any additional services. She was utilizing seven community services, medical services for her and the child, nutrition information services, WIC, Medicaid, an adult education program, legal aid, and financial assistance. In the past, she had used TANF, housing assistance, counseling, and community resources. She did not show interest in Indian health services, public health services, parent or childcare classes, parent support groups, employment programs, domestic violence programs, drug/alcohol treatment, transportation assistance, childcare, Head Start, Sooner Start, legal aid, child protective services, childbirth or prenatal classes, vocational rehabilitation, or disability benefits.

Infant health care and development.

Mother 4 took her infant to a private doctor's office for routine check-ups. In the past six months he had been to the emergency once for a fever of 103 degrees. The Denver II score showed developmental concerns in language and social/emotional development.

Case #4 summary.

Number of minutes spent by home visitor with the mother:

The home visitor spent a total of 516.4 minutes with the mother between the six and twelve month marks on the four issues of interest (child development, maternal role, life course, and crisis management. She covered child development for 41.91% of the time she spent with Mother 4 and spent none of that time on teaching the mother about her maternal role. Aside from these two areas, the home visitor also spent time with the mother teaching her about her life

course and assisting Mother 4 to manage her crises. Mother 4 spent 56.93% of her time managing crises with the home visitor and 1.16% receiving assistance planning her life course.

Perceived maternal social support variable across time.

Mother 4's perceived level of support was mostly satisfied; at some points during the first year, she wished to see people less often. Prenatally, Mother 4 reported that she would not see any relatives on a weekly basis and felt that she wanted to see them more often. When the infant was six months old, Mother 4 reported seeing seven relatives per week and she felt that it was about right. During the twelve month visit, Mother 4 saw five relatives on a weekly basis and felt like she would like to see them less often. Her level of support seemed to be about right for her.

Community services.

Mother 4 utilized between seven to eight services, at one time, across the span of the home visitation program. In total, Mother 4 utilized 13 community services. Prenatally, she began with eight community services and by the six month visit she had nine community services that she utilized. At the twelve-month visit her number of services utilized dropped slightly down to seven community services utilized. These services ranged from medical services, parenting classes, and WIC.

Infant's health care and developmental age.

Mother 4's infant was healthy, yet had the infant had some concerning developmental delays in language and social emotional development according to the Denver II screening tool.

This infant was born with no complications and had one visit to the emergency room in his first year of life.

Comparison of Mothers with Higher and Lower Scores

Research Question 1: How many minutes did the home visitor teach child development and maternal role?

Time spent by home visitors with the mothers.

Table 4: Time Spent per Topic (in minutes)

Time Spent per Topic (in minutes)					
Mother	Total Time	Child Development	Maternal Role	Life Course	Crisis Management
1	432.5	235	30	75	92.5
2	472.5	236.25	71.25	150	15
3	1,313.8	543.5	511	201.3	58
4	516.4	216.4	0	6	294

If you refer above to Table 4, you will see the numerical values in minutes of the time each of the mothers spent with their home visitor as well as the time spent per topic. Because Mother 3 spent a significantly longer amount of time with her home visitor, Table 5 displays the percent of time spent on each topic so that we can compare the mothers.

Table 5: Percentage of Time Spent per Topic

Percentage of Time Spent per Topic				
Mother	Child Development	Maternal Role	Life Course	Crisis Management
1	54.33%	6.94%	17.34%	21.39%
2	50%	15.08%	31.75%	3.17%
3	41.37%	38.90%	15.32%	4.41%
4	41.91%	0%	1.16%	56.93%

Mothers 1 and 2 spent at least 50 percent of their time learning about child development from their home visitor, as seen on Table 5. On the other hand, Mothers 3 and 4 spent about 40 percent of their time learning about child development. There was only about a 10 percent difference between the mothers when comparing this variable between the mother who scored high with teaching and the mothers who scored lower. However, when comparing maternal role, the results were not as easy to place into either group. Mothers 1 and 4 had the lowest percentages, and Mothers 2 and 3 were the highest. Mother 1 who had one of the higher teaching scores only spent about 7% of her time on maternal role, and Mother 3 who scored one of the lowest on teaching spent about 39% on maternal role.

Life course was another portion of the curriculum that was included in order to provide the mothers with some time to set goals and priorities to organize their lives. This included goals such as going back to school, seeking employment, and completing GED and high school requirements. Mothers 1 and 2 received the two highest percentages for life course, the lowest percentage being 17.34% and the highest being 31.75%. Mothers 3 and 4 had the two lowest percentages, the highest being 15.32% and the lowest being 1.16%.

While the mothers experienced intervention, there were some times when the home visitors had to spend time to help them overcome crises in their lives. Crisis management encompassed just that. As far as crisis management was concerned, Mothers 1 and 4 had the highest percentages out of all of the mothers. In fact, Mother 4 spent about 57% of her time with the home visitor just on crisis management. Mothers 2 and 3 did not spend much time on crisis management; they remained under 5% of their time with the home visitor.

Research Question 2: Did the mother perceive that she had enough social support during this time?

Perceived maternal social support variable across time.

To make maternal social support easier to analyze, I broke it down into six different portions. First, how many relatives would the mother see on a weekly basis and how did she feel about the frequency of their visits? Second, how many individuals could the mother count on in a time of need? Next, I studied the mothers' satisfaction with the regular talks she was having and how many responsibilities the mother had shared. Then I looked at the number of groups with which mothers were involved. Finally, I looked at who supported the mothers most during the home visits and how they rated and felt about the support they received from their mothers.

Table 6: Relatives Mother Saw on a Weekly Basis

Relatives Mothers Saw on a Weekly Basis						
Mother	Prenatal – Birth		Birth - Six Months		Six – Twelve Months	
	Weekly Number of Relatives	How Mother Felt About Frequency	Weekly Number of Relatives	Mother would like to see them:	Weekly Number of Relatives	Mother would like to see them:
1	5	More Often	6	About Right	6	More Often
2	10+	About right	5	About Right	9	Less Often
3	7	Less Often	5	About Right	10+	Less Often
4	0	More Often	7	About Right	5	Less Often

If one looks exclusively at the number of relatives a mother would see on a weekly basis in Table 6, you would notice that Mothers 2 and 3 were the only mothers to reach the 10+ relatives per week. However, their numbers were not as high as the other mothers during the six month visits. Aside from Mother 4 who did not see any relatives on a weekly basis during the prenatal visit, numerically, these mothers did not really differ from each other.

However, their feelings towards the frequency of relative visits were of interest because they were not in agreement with a certain number of relatives. For instance, Mother 4 saw five relatives per week at the twelve month visit and reported that she would have like to see them less often, whereas Mothers 2 and 3 felt it was about right, and Mother 1 felt she would like to see her relatives more often. Even the same mother had differing opinions over the duration of the home visits. Mother 2 saw 10+ relative per week during the prenatal visit and felt it was about right, but during the twelve month visit, she reported that she felt she wanted to see her relatives less often when she was seeing nine.

Table 7: Number of Individuals Mothers Could Count on in a Time of Need

Number of Individuals Mothers Could Count on in a Time of Need			
Mother	Number of Reliable Individuals Prenatal – Birth	Number of Reliable Individuals Birth – Six Months	Number of Reliable Individuals Six – Twelve Months
1	10+	10+	5
2	6	10+	10+
3	3	10+	7
4	10+	10+	8

Based on the numerical values indicated on Table 7, all of the mothers had at least five people they could rely on, with the exception of Mother 3 at the prenatal visit. The numbers do not show any significance between the mothers who scored high with teaching and the mothers who scored low with teaching.

Table 8: Mothers' Satisfaction with Regular Talks Across Time

Mothers' Satisfaction with Regular Talks Across Time				
Mother	Individual who mother shared regular talks with	Prenatal – Birth	Birth – Six Months	Six - Twelve Months
1	Boyfriend/Husband	Very Dissatisfied	No Significant Other	Very Dissatisfied
	Other Adult	Satisfied	Very Satisfied	Very Satisfied
2	Boyfriend/Husband	Very Satisfied	Satisfied	Dissatisfied
	Other Adult	Satisfied	Satisfied	Satisfied
3	Boyfriend/Husband	No Significant Other	No Significant Other	No Significant Other
	Other Adult	Satisfied	No Adult	Satisfied
4	Boyfriend/Husband	Satisfied	No Significant Other	Satisfied
	Other Adult	Satisfied	Satisfied	Very Satisfied

When looking at the mothers' levels of social support based on their satisfaction with their regular talks with their significant others and other adults in Table 8, there was not anything that could be assigned to either the mothers who scored high with teaching or the mothers who scored low with teaching. They all seemed to be either satisfied or very satisfied with their other adult and both groups have at least one instance of no significant other or dissatisfaction with a significant other.

Table 9: Mothers' Number of Responsibilities

Mothers' Number of Responsibilities				
Mother	Who is Responsible	Prenatal – Birth	Birth – Six Months	Six - Twelve Months
1	Solely Mother	1	8	7
	Shared Responsibilities	2	?	2
2	Solely Mother	0	4	2
	Shared Responsibilities	1	0	4
3	Solely Mother	0	3	2
	Shared Responsibilities	1	2	7
4	Solely Mother	0	0	0
	Shared Responsibilities	2	6	5

If you refer to Table 9, you will notice that the mothers all began the home visitation program with a fairly low number of responsibilities that were solely theirs, between none and two out of a possible ten. Once the infant was born, all of the mothers saw an increase in their responsibilities, with the exception of Mother 4, who did not have any responsibilities that were solely hers. Most of these mothers shared responsibilities. Mothers 1 had the greatest number of

responsibilities, followed by Mother 2 who did not have too many more than the other two mothers. Other than that, there was nothing significantly different when talking about the number of responsibilities.

Table 10: Number of Groups Mothers Were Involved in Over the Last Year

Number of Groups Mothers Were Involved in Over the Last Year			
Mother	Number of Groups	Number of Groups	Number of Groups
1	2	3	2
2	2	2	3
3	3	1	0
4	1	0	0

Although the Mothers that scored higher with teaching their children through play did not have a significant difference from Mother 3 at the prenatal visit, they do begin showing a difference by the six and twelve month visits. See Table 10. As opposed to the mothers who did not do so well with teaching, the mothers who did better with teaching their infants kept up with their number of groups. Mother 3 and 4's number of groups declined and reached zero by the time of their respective twelve month visits.

Table 11: Support Over the Last Year

Support Over the Last Year			
Mother	Who Provided Most Support?	How Much Did Mother's own Mother Help?	How Did Mother Feel About Mother's Support?
1	Mother	A Lot	Not Enough
2	Mother-in-Law	Quite a Bit	Too Much
3	Mother	Quite a Bit	About Right
4	Friend	Quite a Bit	About Right

The main fact that I gathered from Table 11 was that the mothers who scored lower with their teaching scores were satisfied with the level of support from their own mothers, whereas the mothers who scored higher with their teaching scores were not satisfied with the support from their own mothers. Mother 1 communicated that her mother's support was not enough, and Mother 2 reported that her mother's support was too much. Also, although not all of the mothers provided the most support to their daughters, they all provided at least moderate support.

Research Question 3: How many community resources did the mother use?

Community services utilized over time.

When looking at the number of home community services the mothers utilized per visit and the total number of community services they utilized throughout the home visits, Mothers 1, 2, and 4 were very similar in the number of resources they utilized, as seen in Table 12. They all seemed well supported based on the number of resources they made use of throughout the

duration of the home visitation program. On the other hand, Mother 3 used a significantly smaller number of community services. Even though the total number does show that she received five different services, she was still much lower in her number of services utilized.

Table 12: Community Services Utilized

Community Services Utilized				
Mother	Prenatal – Birth	Birth - Six Months	Six – Twelve Months	Total Number of Services Over Time
1	5	11	6	13
2	5	7	7	10
3	1	3	4	5
4	8	9	7	13

Research Question 4: Was the infant health and within normal developmental range?

Infant health across time.

Mothers 1 and 2 had relatively healthy infants throughout the duration of the home visits, as seen in Table 13, and experienced a few visits to the emergency room. Mothers 1 and 2 also had typically developing infants, according to the Denver II screening tool’s results from the twelve month visit. As for the mothers who scored low with teaching their child through play, they had a few dissimilarities from the mothers who scored higher with teaching their infants, also visible on Table 13. For instance, Mother 3 had an infant that had some health concerns unlike Mothers 1 and 2’s multiple emergency visits, and Mother 4 had a healthy infant, but he was showing developmental concerns in language and social emotional development.

Table 13: Infant Health and Development

Infant's Health Over Time and 12 Month Denver Screening Results		
Mother	Infant's Health Over Time	12 Month Denver II Screening
1	Healthy	Typically Developing Infant
2	Healthy	Typically Developing Infant
3	Health Concerns Through First Year of Life	Typically Developing Infant
4	Healthy	Showed developmental concern for language and social/emotional delay

Additional Information

Although life course took time from the overall focus of child development, Mother 1 earned her GED, and Mother 2 was two months away from earning her high school diploma at the time of their twelve month visits. These two mothers spent a higher percentage of time with their home visitor on life course than the Mothers 3 and 4 who ended up dropping their educational programs, as seen on Table 14.

Table 14: Mothers' Education Over Time

Mother's Level of Education			
Mother	Prenatal – Birth	Birth – 6 Months	6 Months – 12 Months
1	Mother 1 has 12 years of education and is enrolled in an education program.	Mother 1 is now claiming 11 years of education and is enrolled in an education program.	Mother 1 has 12 years of education and has received her GED. She is no longer enrolled in an education program, but plans to continue her education.
2	Mother 2 has 11 years of education and is currently enrolled in an education program	Mother 2 has 11 years of education and is enrolled in an education program	Mother 2 has 11 years of education and is enrolled in an education program. She will graduate from high school in 2 months.
3	Mother 3 has 7 years of education and is enrolled in an education program.	Mother 3 has 8 years of education and is no longer enrolled in an education program.	Mother 3 has 8 years of education and was no longer enrolled in an education program.
4	Mother 4 has 7 years of education and is enrolled in an education program.	Mother 4 has 8 years of education and is enrolled in an education program.	Mother 4 has 8 years of education and is no longer enrolled in an education program. No GED or diploma.

Chapter V

Discussion and Implications

Discussion

The four mothers in this study were adolescent mothers experiencing their first child. When their infants were 12-months of age, two of the mothers did a good job of teaching their infants vocabulary within a play session. The other two mothers did not do well teaching their 12-month old infants.

I have learned by studying their home visitation records in depth that the mothers who did well on teaching compared to the mothers who scored low on teaching, had relatively good support from their families, maintained their number of support groups with whom they met, had slightly more responsibilities that were solely theirs, and had typically developing and healthy infants. In addition the high teaching mothers, utilized a relatively high numbers of community resources, were taught child development lessons from their home visitors for a significant percentage of their time (at least 50%) and were older than the mothers who scored lower with teaching.

On the other hand, the two mothers who scored low on teaching their infants at 12-months still had relatively good family support systems, with a few minor exceptions, such as not seeing relatives during a prenatal visit and not having an adult to have regular talks with for a six month visit. These two incidences seemed to be isolated in that they occurred in one visit but were taken care of by the next visit. The mothers who scored low on teaching spent less than 42% of their time learning about child development from their home visitor, were younger than the mothers who scored higher, had slightly fewer responsibilities than the other two mothers

since the birth of their infants, and did not maintain the number of groups with which they met. These mothers also had infants with concerns of their own: Mother 3 had an infant who had some medical concerns through the first year of his life and Mother 4 had an infant who was showing concerns for developmental delay in language and social/emotional development. The use of community services with these two mothers were at extremes, one used many services and the other only used up to three services.

Looking across four adolescent mothers' lives in depth, was an eye opening experience and one in which not one of the four variables I studied stood out for each of them individually to specifically relate to their teaching levels. Each one of the mothers seemed to have reasons for either doing well with their teaching (mothers 1 and 2) or not well with their teaching (mothers 3 and 4). The four variables were not consistent across the four mothers in my attempt to understand why some mothers did well and some mothers did not do well.

Implications

The implications of this study are for home visitors to realize that mothers are all at different levels of support and crises. For instance, Mothers 1 and 4 had the highest percentages of time spent on crisis management. These two mothers required additional support that would not be necessary for the other two mothers. Although Mother 1 had high levels of support, she reported not receiving enough and wanting to see family more often. While Mother 4 reported seeing her family much less often than Mother 1 and still wanting to see them less often. Sometimes, it is not possible to spend time on child development or maternal roles because the mothers are preoccupied with their disorganized and sometimes chaotic lives. Until the mother

perceives her life to be in order, she will not be ready to be attentive during the lessons the home visitor is providing.

It is clear after studying the four mothers' lives and their teaching ability that the variables I chose to study were clearly different for each of the mothers, and not one of the four variables stood out as making a large difference in their teaching ability. While age of mother was not a variable of interest, it deserves a closer look. The mothers who were low in their teaching ability were younger and less educated than the mothers with high teaching ability.

Notably, after reading and studying in depth the lives of these four mothers, I would recommend to any adolescent woman not to get pregnant. Adolescence is a time in life that is intended for individuals to experience the world and be free from a dependent child who critically needs their attention. An infant's need for a consistent and responsive adult in order to successfully complete their Eriksonian stage puts them in direct opposition with their mother's need to spend time developing herself and her relationships. An adolescent has so much self-discovery to experience in order to build an identity and successfully complete their Eriksonian that it is near impossible for an adolescent parent to do so, unless there is a high level of support from other individuals. Because both the adolescent mothers and their infants require attention during these two critical stages, they can literally hinder each other's development. Because an adolescent mother will be trying to manage two conflicting roles, I would encourage her parents to support her as needed.

Another recommendation I would offer would be for home visitors to realize that their services to adolescent mothers is not a one size fits all treatment. They should be responsive to the needs of the families that they serve. Because of their varying levels of support and crisis,

not all adolescents are going to need the same information or support from their home visitor. As you can see from the percentage of time on topic, the home visitors in this study did indeed vary the curriculum for each of the mothers. The adolescents in this study also showed varying ideas on how much support they felt was sufficient throughout the home visits. For example, at the twelve month visit, Mother 1 had a moderate amount of support and felt it was not enough and Mother 4 saw her family less often than Mother 1 and wanted to see them less often. With added flexibility to the curriculums utilized by home visitors, they will be able to accommodate to their clients' needs, thus reducing the amount of time spent on topics that the adolescents are already familiar with or not prepared to attend to.

For my future work with adolescent mothers, I would spend time finding funding to prevent adolescent pregnancy. Also I would find funding to support home visitation programs which do allow flexibility in the curriculum (as this one did for the four mothers who were all adolescent but were divergent in many ways.). This is important for home visitation programs so that all the mothers can receive the intervention and parenting education that matches their needs.

Appendix: IRB Approval Documents



University of Central Florida Institutional Review Board
Office of Research & Commercialization
12201 Research Parkway, Suite 501
Orlando, Florida 32826-3246
Telephone: 407-823-2901 or 407-882-2276
www.research.ucf.edu/compliance/irb.html

Approval of Human Research

From: **UCF Institutional Review Board #1**
FWA00000351, IRB00001138

To: **Anne McDonald Culp and Co-PI: Rex E Culp**

Date: **May 23, 2012**

Dear Researcher:

On 5/23/2012, the IRB approved the following modifications / human participant research until 5/22/2013 inclusive:

Type of Review: IRB Continuing Review Application Form
Project Title: Parental distraction in parent-infant dyads: Tuning in and tuning out
Investigator: Anne McDonald Culp
IRB Number: SBE-11-07588
Funding Agency:
Grant Title:
Research ID: N/A

The Continuing Review Application must be submitted 30 days prior to the expiration date for studies that were previously expedited, and 60 days prior to the expiration date for research that was previously reviewed at a convened meeting. Do not make changes to the study (i.e., protocol, methodology, consent form, personnel, site, etc.) before obtaining IRB approval. A Modification Form cannot be used to extend the approval period of a study. All forms may be completed and submitted online at <https://iris.research.ucf.edu>.

If continuing review approval is not granted before the expiration date of 5/22/2013, approval of this research expires on that date. When you have completed your research, please submit a Study Closure request in iRIS so that IRB records will be accurate.

In the conduct of this research, you are responsible to follow the requirements of the Investigator Manual.

On behalf of Sophia Dziegielewski, Ph.D., L.C.S.W., CF IRB Chair, this letter is signed by:

Signature applied by Joanne Muratori on 05/23/2012 10:17:21 AM EDT

IRB Coordinator

1.0 General Information

1.1 *Please enter the full title of your study:

Parental distraction in parent-infant dyads: Tuning In and tuning out

1.2 *Please enter the Research ID Number. If not applicable, please put N/A.

N/A

2.0 Add Department(s)

2.1 List of Departments associated with this study:

Primary Dept?	Department Name
<input checked="" type="checkbox"/>	UCF - Child, Family and Community Sciences

3.0 Assign key study personnel(KSP) access to the study

3.1 *Please add a Principal Investigator for the study:

Culp, Anne Mcdonald

Select if applicable

- Student Department Chair
 Resident
 Fellow

3.2 If applicable, please select the Protocol Staff personnel:

A) Additional Investigators

Culp, Rex E, Ph.D., JD
Co-Investigator

B) Research Staff

Furgione, Brian - Research Associate

3.3 *Please add a Study Contact:

1. Culp, Anne McDonald
2. Culp, Rex E, Ph.D., JD

The Study Contact(s) will receive all important system notifications along with the Principal Investigator. (e.g. The study contact(s) are typically either the Study Coordinator or the Principal Investigator themselves).

3.4 If applicable, please add a Faculty Advisor:

No Faculty Advisors have been added.

4.0 APPLICATION FOR HUMAN RESEARCH

4.1 Check whether the research involves any of the following:

For guidance on when it is appropriate to check each box, consult the [ucf Investigator Manual](#).

- Individuals who are under legal age
- Cognitively impaired adults
- Pregnant women
- Prisoners
- Radiation being used for reasons other than clinical care
- The use of any biohazards
- Investigational Drugs
- Investigational Devices
- VA facilities or personnel
- Department of the Navy Research
- Department of Defense

Humanitarian Use Device (HUD) (If you are evaluating the safety or effectiveness of a HUD, complete this application. If not, complete "FORM: Application for HDE")

4.2 Research Personnel Involved in Submission

Principal Investigator must be included in list below.

Names of all research personnel involved in the design, conduct, or reporting of the research	Role in the research	Contact or communication with participants or access to private identifiable data?	Involved in the consent process?	Does this person have a financial interest related to the research?
Antonia Sheel	Graduate Research Associate	<input type="radio"/> Yes <input checked="" type="radio"/> No	<input type="radio"/> Yes <input checked="" type="radio"/> No	<input type="radio"/> Yes <input checked="" type="radio"/> No

Lap Nguyen	Graduate Research Associate	<input type="radio"/> Yes <input checked="" type="radio"/> No	<input type="radio"/> Yes <input checked="" type="radio"/> No	<input type="radio"/> Yes <input checked="" type="radio"/> No
Janisse Guzman	Undergraduate Reseach Associate	<input type="radio"/> Yes <input checked="" type="radio"/> No	<input type="radio"/> Yes <input checked="" type="radio"/> No	<input type="radio"/> Yes <input checked="" type="radio"/> No
Kristen Kestner	Undergraduate Reseach Associate	<input type="radio"/> Yes <input checked="" type="radio"/> No	<input type="radio"/> Yes <input checked="" type="radio"/> No	<input type="radio"/> Yes <input checked="" type="radio"/> No
Brian Furgione	Graduate Research Associate	<input type="radio"/> Yes <input checked="" type="radio"/> No	<input type="radio"/> Yes <input checked="" type="radio"/> No	<input type="radio"/> Yes <input checked="" type="radio"/> No

“Financial Interest Related to the Research” means any of the following interests in the sponsor, product or service being tested, or competitor of the sponsor held by the individual or the individual’s immediate family:

- o Ownership interest of any value including, but not limited to stocks and options.
 - o Compensation of any amount including, but not limited to honoraria, consultant fees, royalties, or other income.
 - o Proprietary interest of any value including, but not limited to, a patents, trademarks, copyrights, and licensing agreements.
 - o Board or executive relationship, regardless of compensation.
- “Immediate Family” means spouse, domestic partner, children, and dependents.

4.3 Additional UCF Resources

If applicable, list any internal departments (excluding your own department) from which you will require resources (such as equipment, facilities, or personnel) in order to conduct your research.

Department	Name	Title	Have you secured permission to use these resources?
No records have been added			

4.4 External Collaborators and Institutions

If applicable, list any non-UCF study sites/facilities in which human research activities will be conducted, and list any non-UCF personnel serving as collaborators.

Name of site	Contact name	Contact phone or email	Has the site granted permission for you to conduct the research? (1)	Does the site have an IRB?	If the site as an IRB, select one:
					<input type="radio"/> The IRB will review the research

Central Michigan University

Tara Saathoff-Wells

Yes No

Yes No

The organization will rely on our IRB (2)
 Will rely on Both IRB's

- (1) If yes, submit a written approval
- (2) Not Allowed for VA research

5.0 PROJECT INFORMATION

5.1 *Select the type(s) of research:

Check all that apply

- Undergraduate class project
- Undergraduate Honors thesis
- Master's class/other project
- Master's thesis
- Doctoral dissertation
- Doctoral class/other project
- Research - UCF faculty
- Research - UCF research assoc-staff
- Other:

If Other, please describe:

5.2 *Provide below a very brief description (3 sentences max) of your study in everyday language.

You will explain this in more depth in the procedures/methodology section of the protocol.

This study focuses on secondary data analysis using a computer based data set and coding verbal utterances from previously filmed home visitation sessions with first-time parents. The data were collected following IRB approved protocols (IRB Oklahoma State University and IRB University of Alabama).

6.0 FUNDING INFORMATION

6.1 *Provide project funding information:

If personal funds are being used, such as a graduate student paying for postage, check unfunded

- Unfunded
- Funded
- Funding application in process
- Funding source requires IRB approval

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