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## THE INFLUENCE OF A HOME VISITATION, PARENT EDUCATION PROGRAM ON LOCUS OF CONTROL AND PARENTING BEHAVIORS OF LIMITED RESOURCE MOTHERS

By

Dawn Christine Koger

## **A DISSERTATION**

Submitted to Michigan State University in partial fulfillment of the requirements for the degree of

## **DOCTOR OF PHILOSOPHY**

**Department of Family and Child Ecology** 

### ABSTRACT

## THE INFLUENCE OF A HOME VISITATION PARENT EDUCATION PROGRAM ON LOCUS OF CONTROL AND PARENTING BEHAVIORS OF LIMITED RESOURCE WOMEN

By

## **Dawn Christine Koger**

In his model on the determinants of parenting behavior, Belsky (1984) suggests that parenting is multiply determined by characteristics of the child, contextual sources of support and stress, and the psychological resources of the parent. He argues that the most critical component to parent-child interaction is parents' psychological resources, and speculates that parents who are most capable of responding to children in sensitive, nurturing and empathic ways are mature, psychologically healthy adults. While several personality dimensions encompass the traits known collectively as psychological resources, one construct that has been connected to parenting is locus of control, or one's belief about his or her ability to influence the outcomes of life. The purpose of this study is to examine the locus of control construct within the context of parent education and parenting behaviors. It is designed to determine if mothers' locus of control orientations shift toward internality, and perceptions of parenting behaviors improve as a result of a home visitation, parent education program. In addition, the correlation between locus of control and parenting behaviors is explored.

One hundred mothers with children three and younger, living in a large, Midwest, urban city participated in the study in 1999. Fifty of the mothers were enrolled in the experimental group through the Building Strong Families, home visitation parent education program, and fifty volunteered to participate in the non-equivalent comparison group after being recruited through their participation in the Women, Infants, and Children (WIC) supplemental food and nutrition education program. Data was collected on a pretest-posttest basis using the following research instruments: The Adult Nowicki-Strickland Internal-External Control Scale (ANSIE), The Parenting Behavior Assessment (PBA) and the Family Record Form (FRF). Group differences were tested using t-tests, and correlations between key variables were tested through Pearson product moment correlation.

Results indicate that mothers who complete the BSF program are likely to experience statistically significant differences toward more internal orientations following the program, while women in the comparison group report no changes. These findings were significant at the p< .000 level. Also, mothers who complete the program experience significant increases (p< .000) in reports of positive parenting behaviors as well, when compared to a comparison group of mothers who did not receive any parent education treatment. Finally, correlations between locus of control orientation and parenting behaviors yielded inconsistent results. Correlations at pretest revealed no significant relationship, however, analysis at posttest yielded a significant negative correlation. That is, internal locus of control scores were correlated with mother's tendency to identify self with positive parenting behaviors. In general, the results of this study suggest that locus of control orientations and parenting behaviors can be influenced by a home visitation, parent education program.

Belsky, J. (1984). The determinants of parenting: A process model. Child Development, 55, 83-96.

Dedicated in loving memory of my two Dads,

Gerald Thomas Farmer and Douglas John Blanchard.

-

One gave me the gift of life; the other the discipline to do something with it.

I will be forever grateful to you both.

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# CHAPTER I INTRODUCTION

Early reports of the success associated with home visitation programs lead to an influx of resources allocated to home service interventions, resulting in thousands of programs across the United States (Gomby, Culross & Behrman, 1999). Many agree that parents need effective social support networks and suggest that home visiting programs provide a valuable resource by functioning in that capacity (Baker et. al., 1999; Daro & Harding, 1999; Wagner & Clayton, 1999). However, since home visitation describes a delivery strategy and not a program model, there is a great deal of disparity among individual programs and their primary activities. Clearly, these contextual differences lead to a host of different outcomes, variable success rates and mixed findings. Yet there is still a substantial body of work that suggests that home visitation programs can be an effective way to reach families with young children (Campbell, 1994; Olds et al., 1986; Hardy & Street, 1989). Olds et al. (1986; 1997) demonstrated positive results of home visitation using outcomes related to child maltreatment, including child abuse and injury. Hardy and Street (1989) concluded that there was a significant reduction in children's hospitalizations, a sharp reduction in suspected child abuse and neglect, and a reduction in the substantiated incidents of child abuse and neglect in a home visited group compared to a control group who did not receive the intervention. Other investigators studying a home visitation program for families with newborns at risk for poor outcomes found that mothers in the experimental group reported numerous positive outcomes including improved parenting efficacy, decreased parenting stress, and increased use of

non-punitive discipline techniques when compared to a control group not receiving services (Duggan et. al., 1999).

While home visitation programs address multiple outcomes, parent education is often a primary focus of the intervention. Parent education is aimed at the parent or parents, with the intent of providing support, information, skills, and/or referrals to community resources to improve the parent-child relationship and family system. Parent education programs report a range of goals and activities and often look to the empirical evidence to guide conceptual and programmatic models in the development and implementation of programs. For example, existing research has substantiated that parents' ability to nurture their children may be jeopardized for a variety of reasons. Living in a stressful or chaotic environment, having limited support networks, and lacking knowledge of normal child development may limit parents' capacity to foster their child's optimal development (Seitz, Rosenbaum & Apfel 1985). Therefore, one may conclude that stimulating, organized and safe home environments, supportive social networks, age appropriate developmental expectations, and positive parenting behaviors are among the significant predictors of competent parenting, and as such, a desired outcome of parent education programs.

Some go further, however, and suggest that parenting is affected by several domains of parental functioning. These domains include not only those dimensions typically associated with parental functioning such as knowledge and performance, but also parental acceptance and capacity, as well (Pecora, Fraser, Nelson, McCroskey & Meezan, 1995). The first two domains are those most often targeted by with parent education and more easily conceptualized. Parental knowledge refers to what parents

know in terms of age appropriate expectations, normal child development, and appropriate discipline strategies, while performance is the actual parenting behaviors and strategies utilized. The second two domains are important, but less often associated with parent education interventions. Parental acceptance ascribes the degree to which a parent has acknowledged the role and responsibilities of parenting and is often conceptualized in terms of the presence or absence of warmth and empathy. Finally, parental capacity is the parent's capability to provide adequate care. It is an extremely complex construct and is influenced by characteristics such as parental depression, illness, developmental disabilities, low self esteem, lack of confidence, and lack of perceived control (Pecora et al., 1995).

This concept of parents having the capacity to provide appropriate and responsive care is further supported by the process model of the determinants of parenting (Belsky, 1984). Belsky's model describes how parental psychological resources directly impact parental functioning. Like parental capacity, parental psychological resources can be a complex variable and represents numerous attributes. Belsky defines it as the product of the parent's developmental history and personality. One aspect of parental psychological resources of control refers to where individuals find the decision making factors that influence life (Swick & Graves, 1986). This concept originated in social learning theory and describes the degree to which individuals perceive reinforcement as contingent upon their own behavior. Locus of control orientations range from internal to external (Rotter, 1966). Internal locus of control is the belief that an individual can determine his/her own fate within

limits. External locus of control is the belief that he/she is controlled by powerful forces outside of him/herself (Lefcourt, 1976).

Many contextual variables have been linked to locus of control orientation in the literature. In general, limited resource audiences tend to score as externals, while individuals from middle and upper socioeconomic groups generally score as internals (Shaw & Uhl, 1971). There is also a substantial body of research which suggests that externality is a function of gender. Women tend to score in the external direction while men typically score more internally (DeBrabander & Boone, 1990). These tendencies are especially significant in relation to studies of limited resource women, and the influence that their inclination toward externality might have in other areas of their lives, such as parenting. For example, investigators have explored the locus of control construct and its relationship to parenting. Many have documented that internality is associated with positive parenting behaviors and child outcomes. Specifically, studies have linked parental locus of control to child locus of control (Barling, 1982), child personality characteristics (Ollendick, 1979), parent child interaction (Chandler, Wolf, Cook & Dugovics, 1980; Kleemeier, 1976), the incidence of child abuse (Ellis & Milner, 1981), parent perceptions of children's problems (Harris & Nathan, 1973), and parents' ability to provide stimulating environments (Stevens, 1988).

### **Statement of the Problem**

Studies support the notion that internal locus of control is related to positive behaviors (Lefcourt, 1982; Schaefer, 1983), that parental locus of control impacts the parenting process and children (Chandler et al., 1980; Stevens, 1988;), and that interventions

have been successful in influencing locus of control orientation (Tait, 1976). Furthermore evidence documents that home visitation can be an effective delivery model (Campbell, 1994) and parent education programs are effective in creating positive changes in families (Brems, Baldwin & Baxter, 1993; Gross, Fogg & Tucker, 1995). Thus far, the majority of parent education programs has concentrated upon evaluating impact on narrow measures such as children's cognitive development or parenting behaviors (Clewell, Brooks-Gunn, & Benasich, 1992). Recent research, however, has begun to seek out broader, nontraditional outcomes of parent education. Evidence suggests that parent education programs can transform mothers' thinking about themselves, their own lives, and their personal resources (First & Way, 1995).

Nonetheless, not enough is known about mothers' changes in self as a result of parent education. Some evidence suggests that a parent class may alter mothers' perceptions of self (First & Way, 1995). Yet, little data exists which documents non-traditional outcomes of parenting education, and few programs have examined the effect that the intervention has upon locus of control orientation. Even fewer yet attempt to influence locus of control orientations toward internality, in spite of what is known regarding the impact of locus of control on parenting and child development. While maternal locus of control orientation may be influenced as a result of a parent education program. Also, more information is needed to further explore the relationship between maternal locus of control orientation and parenting behaviors, and how this construct influences ways in which limited resource mothers interact with and respond to their children. Therefore, there is a need to better understand if a home visitation, parent

education program can be an effective way to transform mothers' thoughts of self and personal power, and influence parenting behaviors of limited resource mothers.

#### **Purpose of Study**

The purpose of this study is to examine the locus of control construct within the context of parent education and parenting behaviors. Specifically, this study will determine if limited resource mothers' locus of control orientations shift towards internality, and perceptions of parenting behaviors improve, as a result of a home visitation, parent education program. Also the correlation between maternal locus of control and parenting behaviors will be explored.

The materials used in the course of the program were designed specifically for the limited resource audience and include a personal development component for the mothers which is believed to influence the degree to which they perceive reinforcement as contingent upon their own behavior. Also, the program's curricula focuses upon providing mothers with knowledge and skills to understand and respond to their children in developmentally appropriate ways. Finally, the program utilizes a paraprofessional, home visitation model that is thought to influence and enhance the ways in which mothers perceive themselves and their sense of control and power. For these reasons, it is believed that locus of control orientation and parenting behaviors of limited resource mothers should be influenced by the intervention.

### Significance of the Study

Findings of this study will be helpful in furthering the understanding of and changes in locus of control and its relationship to parenting. Also, the information gleaned will have direct implications for parent education program development, implementation, and evaluation for limited resource audiences. Thus far, the focus of most parent education programs has been on the dissemination of behavioral or technical information (First & Way, 1995). However, if findings suggest that a home visitation, parent education program is an experience that transforms mothers' thoughts about self and personal power, then program planners should consider models which facilitate and encourage parental personal growth. Encouraging mothers to develop new ways of thinking could have significant impact on their ability to effectively parent, their relationship with their child and the child's development, and ultimately upon improvements in other areas of maternal life course as well.

### **Theoretical Framework**

Two theoretical models are the foundation for this research, social learning theory and the process model of the determinants of parenting. This next section describes both of these theories independently and then integrated within the context of this study.

### Social learning theory

The first model is Rotter's social learning theory (1954) and provides a foundation for understanding personality and behavior. The basic assumption of social learning theory is that personality is the result of the interaction between the individual and his environment, as opposed to fixed internal traits with no capacity to be molded or shaped. Thus, personality represents learned behavior, meaning present behavior is shaped by past experiences.

Rotter's social learning theory depicts four elements that are utilized to predict behavior and describe personality. The first variable is behavior potential, or the likelihood for a given behavior to occur in a particular situation, in relation to a single reinforcement. The second major variable is the expectancy value, or the degree to which one believes that a particular reinforcement will occur as a result of a specific behavior. Reinforcement is the third variable and describes the level of preference for any particular reinforcement to occur if the possibilities of all occurring were equal. The final variable is the situation to which the individual is responding. Rotter (1954) hypothesized that using these four variables, there is a formula which can predict behavior. That formula is, the behavior potential for a given situation and a particular reinforcement is a function of the expectancy value and reinforcement value. In other words, how one behaves in a given situation is a result of the degree one expects a particular reinforcement to occur as a consequence of a specific behavior, and the value for that particular reinforcement, within the context of the environment and past experiences. Figure 1 is a visual representation of the formula. The elements of Rotter's theory, which are particularly relevant to this study, are bolded in Figures 1.

## Figure 1: Rotter's Social Learning Theory (1954)

## **Predicting Behavior**



Note. Adapted from Rotter, J. (1954). Social learning and clinical psychology. New York: Prentice Hall.

The inclusion of the concept of expectancy values, or probability of reinforcement, is what sets Rotter's theory aside from other social learning theories. Eventually Rotter (1966) refined this idea further and developed the locus of control construct which described generalized expectancy in terms of internal or external reinforcements. Rotter suggests that people will behave differently if they feel that what happens to them is a result of their own behavior rather than controlled by chance, luck, fate, or powerful others. Figure 2 illustrates Rotter's social learning theory. Elements particularly relevant to this study are bolded in Figure 2.





Note. Adapted from Rotter, J. (1954). Social learning and clinical psychology. New York: Prentice Hall.

Rotter's theory establishes a framework that describes personality and behavior within the context of the environment and experience. In this study, social learning theory serves as a means to better understand how experiences influence the locus of control construct, and ways in which locus of control influences behavior. This model describes the range of human behavior, including behavior within the context of parenting. For example, according to Rotter's theory, mothers perceptions of the influence of their behavior on any given outcome is a result of their experiences and attitudes. Their behavior is formed by how they view the world and their past experiences. This model offers a useful framework in determining how mothers make behavioral decisions that shape their lives and the lives of their children.

## The process model of the determinants of parenting

The second theoretical model for this study is the process model of the determinants of parenting (Belsky, 1984). It is based upon an integration of the profusion of literature

regarding children and parenting rather than an empirically demonstrated model, although it is a widely accepted theoretical framework. This model originated in the literature of child maltreatment and is an ecological model of parental functioning. Ecological theory emphasizes that human development is influenced by the context within which individuals live. For instance, children's development is influenced by how parents and other significant people care for them, and how others care for them is influenced by the characteristics of, and the interactions among, families, social networks, neighborhoods, and communities (Olds et al., 1999).

Figure 3 shows Belsky's process model of the determinants of parenting. In the model, Belsky suggests that parenting is multiply determined through the interaction of forces within the parent, forces within the child, and forces within the social context in which the parent-child relationship is embedded. According to his model, forces from within the parent include the elements of the parent's developmental history and personality. Child characteristics such as developmental stage, temperament, behavior, as well as the "fit" between those characteristics and the parent, describe examples of the forces within the child. Those forces from within the social context represented in the model are the parents' marital relationship, work, and social networks. The model assumes that parent's personality is influenced by marital relations, work and social networks, that the child along with the parent's developmental history, marital relations, work, and social networks to this study are bolded in Figure 3.





Figure 3: A process model of the determinants of parenting

Belsky's model on the determinants of parenting is reflective of the ecological theory, which emphasizes that human development is a result of the interaction between the individual and the environment. Belsky's model has multiple layers, each nested within a larger system, which impacts human development. Belsky acknowledges the importance of individual characteristics and contributions to development as evidenced by his inclusion of elements such as the temperament of the child and the developmental history and personality of the parent. Consistent with ecological theory, the model explicitly states, however, that child development does not occur in isolation, and that the family is also a critical component of human development. Yet, while family is a significant setting in which human development occurs, ecological theory emphasizes that development occurs in multiple settings simultaneously (Bronfenbrenner, 1986). Belsky's model reflects the belief that not only is development affected by the various systems and multiple environments in which children live, but also the multiple settings in which their parents live, and then the interaction among them. This assumption is reflected in the inclusion of multiple domains, such as the parent and child, and multiple settings such as social networks, marital relationship, school, and work.

### Integration of Rotter's and Belsky's Theories

Figure 4 is the conceptual framework created to depict this study and represents an integration of Rotter's social learning theory and Belsky's process model of the determinants of parenting. The following section will describe the elements selected from both models which are meaningful within the context of this research.

Figure 4: A conceptual framework integrating Rotter's social learning theory and Belsky's process model of the determinants of parenting



Note: From Belsky, J. (1984). The determinants of parenting: A process model. Child Development, 55, 83-96, and from Rotter, J. (1966). Generalized expectancies for internal versus external control of reinforcement. Psychological Monographs. 80.

Belsky's model is reflected in the five elements of social network, developmental history, personality, parenting, and child characteristics, and describe forces from within the parent, within the child, and within the social context which contribute to, or influence. parenting. The first two elements "Developmental History" and "Personality" are the constructs that Belsky refers to as parental psychological resources. Together, these elements describe the forces from within the parent that contribute to parental functioning. One's history and developmental processes contribute significantly to the adult he or she becomes, shaping personality and psychological well being. Belsky suggests that it is mature, psychological healthy adults who are the most capable of providing sensitive, nurturing, developmentally appropriate parenting. While numerous characteristics and attributes make up what is referred to as personality, one particular personality dimension that Belsky identifies as critical to parenting is the individual's locus of control orientation. In fact, Belsky (1984) states that direct support for the personality-parenting connection can be found in data which links internal locus of control to levels of observed warmth, acceptance and helpfulness and low levels of disapproval when interacting with young children (Mondell & Tyler, 1981). In support of Belsky's theoretical model, other investigators have examined parenting within the context of locus of control, as well. For example, in a review of the literature, Swick & Graves (1986) argue that the evidence suggests that personal psychological characteristics are critical components of effective parenting and suggest that locus of control is one of the significant personality attributes. They assert that it is a "core skill" which influences many dimensions of parents' and children's lives, and contributes to healthy families. Schaefer, Hunter & Edgerton (1983) also propose that locus of control be identified as

one set of the maternal variables that describes and influences the child's psychosocial environment. When researching maternal locus of control and parenting behaviors, the authors found internal locus of control to be associated with having progressive child rearing beliefs, providing educational experiences, talking with children and encouraging curiosity. Other parenting behaviors associated with parental internal locus of control are warmth, protectiveness, consistency with discipline and encouragement of independence. Conversely, studies have found parents who are extremely externally oriented have a negative impact upon their child's development (Graves, 1986) and children raised in powerless settings model those behaviors in their own lives (Kempe & Kempe, 1978).

The next element of Belsky's model selected as relevant for this study is "Social Network". Social network is defined as the social context in which the parent-child relationship is embedded. Particularly, Belsky is interested in the functions and sources of social support, and ways in which the network can contribute to or detract from growth promoting parenting. In fact, there is a compelling body of literature that demonstrates the impact that overall support influences parental psychological well-being and support is positively correlated to parental functioning (Belsky, 1984). Bronfenbrenner (1986) suggests that the informal and formal support systems of both the parent and the child influence a parent's child rearing behavior. For example, women who had social networks to call on following the birth of their babies had more confidence in their ability to perform well as mothers than women who did not (Cutrona & Troutman, 1986). In addition, researchers have found that more support networks appear to promote feelings of well being (Melson, Ladd & Hsu, 1993) and higher levels of social support were

associated with higher parental satisfaction and higher maternal esteem (Koeske & Koeske, 1990).

The fourth domain of Belsky's model is "Child Characteristics". This component describes individual characteristics, including temperament and personality, from within the child. Belsky argues (1984) that the plethora of knowledge which describes the child's influence on parents and parental functioning provides a foundation for this elements' inclusion in his model. However, he also supports others who suggest that perhaps the relationship between child characteristics and parental functioning is not a result of direct shaping on the child's part, but rather an issue of the "goodness of fit" between parent and child (Lerner & Lerner, 1985).

The fifth and final element of Belsky's model represented in this study is "Parenting". In the article describing his model, Belsky seems to use the terms parenting and parental functioning interchangeably. He suggests that parenting refers to an individual's childrearing attitudes, strategies and behaviors. He proposes that those parents who are able to provide sensitive and responsive care to their children facilitate optimal child development. Many other researchers have established the linkage that supports that competent parenting enhances child development as well. For example, Maccoby & Martin (1983) concluded that warm, involved, nurturing parents had children who were competent, responsible, independent, confident, achievement oriented, and able to control aggression. In addition, parental sensitivity to task, level of aggression towards child, and extent to which independence is encouraged have been linked to secure attachments and children's problem solving skills (Easterbrook & Goldberg, 1984).

Belsky's model provides a comprehensive, ecological explanation of the influences on parenting and parenting behaviors. However, to give meaning to the ways in which individuals behave in general, and to the locus of control construct, social learning theory must be included in the theoretical framework, as well. Rotter (1954) suggests that past experiences, or developmental histories, influence and shape future behaviors. In addition, Rotter indicates that one's personality is influential in determining behavior. He asserts that behavior is defined in terms of one's ideas regarding anticipated degree of success and eventually labeled this construct locus of control. The relevant elements of Rotter's social learning theory which are integrated into the conceptual model are developmental history, personality, expectancy value, reinforcement value, and behavior. Personality, expectancy value and reinforcement value are interrelated concepts. That is, the values one has regarding the probability that a specific reinforcement will occur and the value one places upon that reinforcement, reflect personality characteristics. To identify this interconnectedness, these elements are represented in the model as intersecting ovals. Overlap, or terms that have consistent meanings and themes between the two theoretical models, is indicated on the integrated conceptual framework by a heavy broken line grouping common elements.

Clearly there are parallels between the two models that are apparent upon examination of the integrated conceptual framework. Both researchers suggest that developmental histories shape personality, and personality influences behavior. Furthermore, both describe the contextual factors of the environment as influential in terms of personality development and predicting behavior. Finally, both authors argue that locus of control is a significant personality construct which contributes to and

influences the ways in which individuals behave. While Rotter's work has focused upon the construct of locus of control in terms of general behavior, Belsky has addressed the concept in terms of a more narrow aspect of human behavior, parenting. These parallels between the two theoretical models validate the integration and introduce a composite conceptual model for this study. The integrated conceptual framework is characterized by nesting Belsky's model of the determinants of parenting within the larger context of social learning theory. Rotter's work provides the foundation for ways in which individuals behave and Belsky's suggest ways in which this process is applied within the context of parenting.

## Operational map

Figure 5 is the operational map for this study and describes the key variables within the context of the integrated conceptual model. The "Developmental History" element, includes the key variables gender, maternal age, ethnicity, educational level, income, number of children, and first time parent status. Each describe part of a mother's past experiences, or a segment of her developmental history, and are critical components which influence experiences and developmental processes. Both Belsky and Rotter consider the impact that variables such as these influence decision making, personality, and behavior. Each of the above terms represents a control variable in this study.

The next element within the conceptual model is "Personality". In general, the term personality represents numerous individual attributes. However, both Belsky and Rotter agree that locus of control orientation is a specific personality dimension and focus upon the role that it plays in determining behavior. Furthermore, others have identified




locus of control as an important personality dimension in relation to parenting (Swick & Graves, 1986) and it has been linked to positive outcomes for both parents and children (Barling, 1982; Stevens, 1988). Because of the empirically demonstrated significance of locus of control, it was selected as the key construct addressing the "Personality" dimension of the operational map, and serves as the dependent variable of the study.

Another concept that is consistent in both models is referred to as "Behavior" on the operational map and describes specific parenting behaviors. Parenting behaviors reflects the child rearing strategies utilized by parents and is the second dependent variable for this study. This variable assesses parental perceptions regarding the frequency and consistency of positive parenting behaviors and relates the behaviors to locus of control and parent education. Thus, one of the primary purposes of the study is to explore the extent to which participation in a parent education program influences changes in mothers' locus of control orientation , parenting behaviors and the relationship between those behaviors and locus of control.

While Rotter's model suggests that personality is the interaction of the individual and his meaningful environment, he does not explicitly state what those environmental components are. While the element "Social Network" represented on the operational map might be considered part of what he thought to be "meaningful environment", it was never specifically defined. Therefore, social network is attributed to Belsky's work only. In this study the independent variable parent education represents the element of Belsky's model known as "Social Network". Although the parent education intervention intends to influence ways in which parents respond to and interact with their children and change behavior, another significant priority is to improve the social network of the mother.

Paraprofessional parenting instructors are intended to serve as a source of support and enhance parental functioning. This influence on the mother's social support network is believed to effect parental behavior directly, when the parenting instructor provides feedback and support regarding a mother's role and her parenting behaviors, and indirectly, as the instructor provides emotional support and encouragement to the mother herself.

The final element included on the operational map is "Child Characteristics". The variable selected to represent this piece of the model is child's age. While many other child characteristics influence parenting and parental functioning, age is certainly one factor that affects the ways in which mothers respond to and interact with their children. There are vast differences in the information needed and caregiving patterns associated with parents of children newborn through three years of age, the target population for this particular parenting education program. For this variable, the age of the target child is categorized into two groups, 0-18 months and 19-36 months. This distinction is in recognition of the role that children and their developmental stage play in influencing parental functioning.

The arrows among the elements of the operational map indicate influence and directionality. Thus, according the operational map, developmental history and social network influence personality, personality influences social network, and child characteristics, social network and personality influence parenting. The thick lines indicate the relationships that this research intends to test, and the arrows identify the hypothesized direction of the relationship between the variables. The thick, intact line suggests a relationship that has already been demonstrated in previous research, yet the relationship will be evaluated in this study as well. In these instances, results are useful to either confirm or refute previous findings. The broken lines on the operational map represent anticipated

relationships between variables, or those that have not yet been consistently documented through previous work. Based upon the operational map, there are three hypotheses that are being tested. They are the influence of a parent education program on parenting behaviors, the relationship between locus of control and parenting behaviors, and the influence of a parent education program on locus of control.

In conclusion, the highly regarded work of Rotter (1954) and Belsky (1984) provides a strong theoretical model that supports the integration of human development and behavior in the environmental context. Moreover, Belsky's model clearly supports the idea that the individual, family, neighborhood, community and societal systems, along with the interaction among them all, determine the course of human development. However, while Belsky suggests that parenting is multiply determined through forces from within the parent, forces within the child, and within the social context in which the parent child relationship is embedded, he argues that the domains are not equal in their influence. Of the three areas, he identifies parental psychological resources as the most critical component to optimal parental functioning. For this reason, this study focuses on the locus of control construct within the context of parenting education and parenting behaviors.

#### **Constructs and Definitions**

This section presents the major variables and concepts that are represented in this research, along with their conceptual and operational definitions.

# Independent variable: Parent Education Program

## **Conceptualization:**

Educational intervention aimed at the parenting process, intended to improve parenting competence.

# **Operationalization:**

All mothers who are enrolled in and complete the Building Strong Families home visitation program within a 16 week period.

# Dependent variable: Locus of Control Orientation

# **Conceptualization:**

Locus of control, which ranges from internal to external, refers to the degree to which an individual perceives reinforcement as contingent upon his or her own behavior. Internal locus of control is the individual's belief that he or she is an actor and can determine his/her fate within limits. External locus of control is the person's belief that he or she is controlled by forces outside of him or herself (Lefcourt, 1976).

#### **Operationalization:**

The locus of control construct is measured by the participant's score on the Adult Nowicki-Strickland Internal-External Control Scale (ANSIE), a self report questionnaire which measures participant's attitudes regarding the extent to which they are able to control their own fate within limits.

# Dependent variable: Parenting Behaviors

# **Conceptualization:**

Childrearing strategies and behaviors utilized by mothers to interact with, respond

to, and influence children and their behaviors.

# **Operationalization:**

Parenting behaviors is measured by the mother's score on the Parenting Behaviors

Assessment (PBA), a self report questionnaire which assesses parental

perceptions of parenting behaviors in relation to young children.

# Other key terms:

# Home Visitation Program

# Conceptualization:

A program delivery strategy that sends staff into the homes of families with young children to encourage changes in the knowledge, attitudes or behaviors of parents by providing social support, practical assistance, and/or parent education. Operationalization:

Home visitation program is measured by the Building Strong Families parenting instructor indicating that the participant received individual lessons on her Family Record Form.

# Limited Resource

# **Conceptualization**:

Limited resource describes mothers with income levels 185% or less of the poverty level.

# **Operationalization:**

Limited resource is measured by the monthly income identified on the Family

Record Form, which should not exceed one twelfth of 185% of the annual poverty level.

# Maternal Age

**Conceptualization**:

The period of time in which a mother has been alive.

**Operationalization**:

The number a mother reports on the Family Record Form as her current age in

years.

# **Maternal Education**

Conceptualization:

The number of years that a mother has participated in formal education through a

licensed institution.

**Operationalization**:

The number a mother reports on the Family Record Form as the last full year of

formal education that she has completed.

# Ethnicity

Conceptualization:

The ethnic group with which a mother identifies.

**Operationalization**:

The ethnic group that the mother selects on the Family Record Form.

# Number of Children

# Conceptualization:

The total number of children to whom a woman has given birth and/or provides care.

**Operationalization:** 

The number of children is measured by adding together all children who are listed under family members on the Family Record Form.

# First Time Parent Status

Conceptualization:

Mother's first parenting experience.

**Operationalization:** 

First time parent status is determined by those parents who list only one child on

the Family Record Form under household members. The responses are coded into

two discrete categories: Yes (One child) or No (More than one child).

# Age of Child

#### Conceptualization:

The period of time in which a child has been alive.

**Operationalization:** 

The number of months in which the targeted child has been alive as recorded on

the Parenting Behavior Assessment.

# **Building Strong Families (BSF)**--Experimental group

A home visitation, parent education program for limited resource mothers of

children 0-3 years of age.

# Women, Infants and Children (WIC)-Non-equivalent comparison group

A federally funded program for limited resource mothers who are pregnant or parenting young children that provides supplemental food packages and nutrition education at community based clinics.

# **Research Questions**

The following questions are posed regarding this research.

- 1. To what extent does locus of control change in mothers who participate in a home visitation, parent education program?
- 2. To what extent do parenting behaviors change in mothers who participate in a home visitation, parent education program?
- 3. What is the relationship between locus of control and parenting behaviors for limited resource mothers?

# Assumptions

The following assumptions are made and accepted as the truths that guide the development of this research.

- 1. Parental psychological resources influence parenting (Belsky, 1984).
- 2. Locus of control orientation is a characteristic of parental psychological resources (Belsky, 1984).
- 3. Locus of control orientation can change (Rotter, 1966; Tait, 1976).
- 4. The Adult Nowicki-Strickland Internal-External Control Scale (ANSIE) provides a valid measure of the locus of control construct (Nowicki & Duke, 1983).

- The Parenting Behavior Assessment (PBA) provides a valid measure of mothers' perceptions of parenting behaviors.
- 6. Participants respond to self report questions honestly and accurately.

#### Hypotheses

The following three hypotheses are formulated for this research. Each of the hypotheses describes an expected outcome regarding the study's results. H1: Limited resource mothers who complete a home visitation, parent education program will show an increase in internal locus of control orientation when compared to the comparison group.

H2: Limited resource mothers who complete a home visitation, parent education program will show an increase in perceptions of positive parenting behaviors when compared to the comparison group.

H3: As mothers' locus of control scores decrease, parenting behavior scores will increase.

#### Limitations

Although the best possible research design was developed, some limitations of this study exist. First of all, only those mothers over the age of 18 years, participating in the Building Strong Families program from February 1999 through October 1999, in a large, urban community were included in the sample. Therefore, the findings are generalizable only to the mothers in that particular sample rather than the BSF program as a whole, since the demographic characteristics of those in the sample is quite different than those participating across the state. In addition, while findings may present implications for program planning and implementation in general, these findings are true only for mothers participating in a specific parent education intervention, and are not generalizable to all parents enrolled in parenting education.

Furthermore, while mothers participating in the WIC non-equivalent comparison group are similar to the experimental group in terms of demographics such as age, race, educational level, family composition, and monthly income, there may be other subtle differences between groups, which may affect findings. For example, BSF is a home visitation program, and WIC is a clinic-based service. There may be differences in mothers who receive services inside their homes and those who receive services outside of their homes. In addition, there may be differences between mothers who enroll in educational programs (BSF) and those who do not (WIC).

Another limitation of this research is its inability to address the long term effectiveness of the BSF intervention. Many investigators have documented short term changes in parenting knowledge and/or behaviors, although there appears to be little evidence of long term changes. For those mothers participating in the BSF program, the post test is administered during the last visit, and there is no follow up contact to determine if changes are sustained over time.

Testing procedures may present another limitation as well. It is possible that pretesting subjects may increase participants' sensitivity to the locus of control construct and/or their parenting behaviors and alter their perceptions of their own power to

influence their lives or parenting skills. Also, data are self reports, and only measure mothers' perceptions of parenting behaviors and locus of control constructs.

Another limitation of the study is experimental mortality, or the number of subjects who drop out of the experimental and comparison groups prior to the completion of the experiment. Because it was not feasible to contact those who chose to drop out of the program, it is impossible to discern if there are differences in those who completed the research study and those who did not. In addition, the reasons of those who decided to drop out of the experimental group may be different than the reasons of those who dropped out of the comparison group. These differences may present a threat to the validity of the study.

Multiple treatment interface is another potential limitation of this research. The majority of mothers who participate in the Building Strong Families and WIC programs also participate in other services ranging from adult education, job training, therapy, health care, case management, and so on. Some of these interventions have preceded the BSF or WIC program in time, while others run concurrently. It may be difficult to attribute changes in locus of control orientation to BSF alone when many other influences have affected participants' attitudes and behaviors as well.

Another limitation of this study is small sample size. According to a power analysis by Pecora et al., (1995), the recommended sample size for an alpha level of .05 and a moderate effect level of .80 is 50 per group. While this study meets these requirements with 50 subjects per group, the small sample is not large enough to detect smaller effects.

Finally, while the design for this research was the strongest possible considering program and staff resources, it was a quasi-experimental design. The results gleaned certainly have implications for program evaluation and future directions of the BSF program. However, a more rigorous scientific design which includes a control group through random assignment, would permit researchers to attribute changes within the experimental group to the intervention with certainty. It is this type of research that is needed to influence program design and policy regarding home visitation, and family support at the state and national levels.

#### **Background Information**

This research is conducted within the context of a major university's land grant extension system. Its purpose is to deliver research-based information and services in communities through a variety of educational strategies, technologies, and collaborations. The Extension programs and activities of this particular Midwest university are focused in three primary areas: Agriculture and Natural Resources, Economic and Community Development, and Children, Youth and Family Programs. Children, Youth and Family programs offer educational opportunities for individuals across the life cycle. The programs are designed to help people improve the quality of their own lives and the communities in which they live. Of noteworthy emphasis is the area of family strengths, which integrates community and university resources to help families succeed. One specific CYF program that was designed to build family capacity is Building Strong Families (BSF).

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Building Strong Families is a parent education program designed for parents with children 0-3 years of age. The program was developed in 1988 to provide an additional resource to home visitation nutrition instructors working with limited resource families with children. In the mid-eighties, staff began reporting that participants enrolled in EFNEP, a nutrition education program, were asking for more information on several additional topics, the most critical being parenting. A parenting curriculum was developed and was used as an additional resource for the EFNEP instructors working with families with young children. However, it soon became apparent that the need for this program exceeded staff resources so additional funding was secured in 1991 to pilot BSF in 4 counties. The program has since expanded and is currently offered in approximately half of the state's 83 counties.

## **CHAPTER II**

# **REVIEW OF LITERATURE**

This chapter of the study has two segments. The first portion presents a review of the empirical literature that supports the need for the study, identifies and explains key variables of the research, and establishes the relevance of the concepts in relation to the theoretical framework. The second half of the chapter describes the educational program that provides the context in which this research is conducted.

# **Review of the Literature**

This section presents a review of the empirical literature to identify and explain key variables of the research. They are, locus of control, parenting, mothers, limited resource, parent education and home visitation. These constructs are reviewed and discussed in relation to the theoretical framework and serve as a rationale for this study.

# **Introduction to Locus of Control**

The concept of locus of control emerged from social learning theory over three decades ago from the work of Julian Rotter. The construct describes the degree to which individuals believe reinforcement is contingent upon their own behavior, and is defined in terms of expectancy values. Expectancy values refer to the probability that a particular reinforcement will occur as a result of a specific behavior, or one's ability to anticipate his success. In other words, wanting to achieve a goal is not enough; one must also consider the extent to which an

individual can expect to succeed (Rotter, 1966).

Specifically, locus of control refers to where individuals find the decision making factors that influence life (Swick & Graves, 1986). The concept involves an individual's view of who or what is in charge of events in their life and ranges from internal to external (Rotter, 1966). Internal locus of control is the belief that an individual can determine his/her own fate within limits. External locus of control is the belief that he/she is controlled by forces outside him/herself (Lefcourt, 1976). Locus of control orientations are developed and reshaped throughout the life span based upon an individual's life experiences. The concept is not a fixed trait, but rather one that is continually shaped and influenced as a product of the individual within the context of his or her own environment (Rotter, 1966). As a result of these lifelong experiences, a framework for decision making is configured, centered within the construct of locus of control (Swick & Graves, 1986). While most people lean toward one end of the continuum or the other, locus of control is often situation specific and people tend to function in a manner that reflects both internal and external beliefs (Smith, 1985).

# Factors Related to Locus of Control Orientation

#### Socioeconomic status

In addition to the life experiences that develop and refine locus of control orientation, there are many other variables which have been linked to this construct in the literature. Researchers suggest that locus of control orientation is a function of socioeconomic status. Individuals from lower socioeconomic status groups tend to score as externals, while individuals from middle and upper socioeconomic groups generally score as internals. For example, in a study examining the relationship between locus of control scores and school achievement among black and white students, Shaw & Uhl (1971) found that lower class blacks and whites had significantly higher external scores than upper middle class blacks and whites. It has been theorized that this association between lower socioeconomic status and external locus of control orientation is a result of a realistic response to the external control factors of poverty (Phares, 1976). That is, the lower socioeconomic groups tend to perceive themselves to be more externally controlled than more advantaged socioeconomic groups. This premise is supported by Adler et al. (1994) who suggest that personal control is a "higher order variable" which individuals from higher socioeconomic groups develop as a result of their having more frequent and/or more significant opportunities to influence those events which affect their lives. Moreover, the work of Gore and Rotter (1971) and Gurin and Epps (1975) suggests that middle income African Americans tend to express more confidence in their ability to influence social environment, which may result in developing coping skills to external stressors and lead to a more internal orientation.

#### Ethnicity

Researchers have also suggested that there is a relationship between race and ethnicity and locus of control orientation. In general, whites tend to be more internal in their orientations than blacks and other minorities (Lefcourt, 1976; Luster, 1987). Numerous studies have examined locus of control orientations of African Americans and whites. Consistently, African Americans have yielded more external reports (Dyal, 1984). In addition,

several meta-analyses have been conducted regarding race and locus of control orientation. Researchers agree that the likelihood that blacks in the United States are more externally oriented than whites in the United States is high. While socioeconomic status is probably confounded with race in some instances, studies that have controlled for SES support the hypothesis that this is generally not the case (Lefcourt, 1982).

However, numerous investigators have found internal orientations within minority groups. For example, Palisi (1988) examined the locus of control orientations of 42 nonworking, low income black and Hispanic mothers with children in Head Start. Although their mean scores were more external than mean scores for white low income mothers with children in Head Start, mean scores for both minority groups were internally oriented. Furthermore, within group research of 177 African American suburban women found evidence of internality, and suggests that internal control is achieved following an acceptance of black identity and successful transitions through the racial identity process which allows them to experience control over their lives (Martin & Hall, 1992). These findings support Carter's (1991) premise that a limitation of the research regarding minorities and locus of control, especially among African Americans, is an assumption that all members of a particular group interpret situations and life events similarly and fail to study within group differences.

One particular criticism of the locus of control research regarding minority groups is the ambiguity in distinguishing between an individual's external locus of control orientation and his perception of an environment in which he may have a relative lack of control. In fact, Gurin & Epps (1975) postulate that an external orientation may be adaptive for minorities as it helps them from internalizing the effects of racism. More specifically, a healthy external locus of

control orientation recognizes that although an individual may have tried her best to attain her goals, there are societal restraints that threaten her ability to control her environment and ultimately achieve. When factors beyond her control prevent her from achieving her goals, an external orientation will allow her to not accept responsibility for personal failure. On the other hand, an individual with an unhealthy internal orientation may feel that she should be able to overcome all forces of racism and may be placing an unfair burden upon herself if her goals are not achieved. In these situations the blame is internalized because the individual believes the fault is within her, not society.

# Gender

There is also a substantial body of research which suggests that externality is a function of gender. The research on women, especially those who are African American, has often focused on the role of power and control in their lives (Pinderhughes, 1982, 1989; Solomon, 1976; Weick & Vandiver, 1982). Women tend to score in the external direction while men generally score more internally (DeBrabander & Boone, 1990; Dyal, 1984; & Mwamwenda, 1995). In an examination of the relationships among locus of control, gender, and academic achievement, Kanoy et al. (1990) found that women who reported internal orientations were able to accept blame for unsuccessful academic experiences, but not take credit for academic success (Messer, 1972).

DeBrabander and Boone (1990) hypothesize that women's tendency toward externality may be related to the idea that females are influenced by their perceptions of what is

socially acceptable. In their research, female answers on assessments tended to reflect the societal perception that women are more dependent upon external factors than men. This hypothesis seems to be consistent with the work that has been done in the area of female development. For example, Gilligan (1995) suggests that in general, women are not encouraged to articulate their need to achieve power, although this is particularly true for women within lower socioeconomic groups. In addition, the female personality is much more likely to define itself in terms of a connection to others than the male personality (Carter, 1991; Chodorow, 1988). The value that women place upon interpersonal connectedness and caretaking behaviors may make it difficult for them to perceive themselves as individuals outside of their relationships with others. Therefore, the critical transition in the development of adult women is that they begin to acknowledge themselves as deserving of the considerations they grant others as opposed to defining "goodness" in terms of self sacrifice. The capacity for women to make this transition emanates from an understanding of the destruction that continuous self sacrifice breeds within themselves (Gilligan, 1977).

In contrast, other investigators exploring the relationship between gender and locus of control orientation have not found significant differences. For example, Lee & Dengerink (1992), in a replication of a 1972 study examining locus of control in relation to gender and nationality, found no significant differences between white males and females in the United States. The authors suggest that these results may be a reflection of societal changes in the United States in the last decade which may have diminished some of the more traditional socialization processes, and eliminated gender differences in the locus of control construct. Furthermore, in a study of middle income African American males and females between the

ages of 23 and 45, there were no significant differences in locus of control orientations, and both genders reported a general tendency toward internality (Cain, 1994). According to the author, this overall propensity to internal orientations may be attributed to the successfulness of this sample and a clear reflection of their sense of personal power and responsibility.

In conclusion, investigators would agree that there are many variables that affect an individual's locus of control orientation. The disagreement revolves around which of those variables seems to be the most influential. In general, the locus of control construct is influenced by the real world. Groups who possess minimal social power in terms of class, race, or gender, tend to score higher in the external control direction (Lefcourt, 1976; Soloman et al., 1971). Conversely, those individuals who have more opportunities to achieve positive outcomes, whether it be a result of group membership or social position, are more likely to be internally oriented (Lefcourt, 1976). Ultimately, one must consider that there are multiple ecological factors that influence individual development. Locus of control orientations among and within groups will vary according to the range and outcomes of individual personal experiences within the context of one's environment (Carter, 1991).

#### Significance of Internal Orientation

#### Internality

Internal locus of control has been related to a variety of positive behaviors and personal characteristics. For example, Lefcourt (1982) suggests that individuals who are internally oriented are able to seek out and utilize information more effectively than individuals who are externally oriented, even if they may have access to the same information. In addition, Phares

et al., (1968) found that those who are internally oriented exhibit a greater willingness to address a potential problem as suggested by constructive feedback than those with more external orientations. Moreover, internal locus of control has been associated with better mental health. Specifically, investigators have found evidence of negative associations with depression (Haworth, et al., 1997; Landau, 1995) and positive associations with life satisfaction (Kopp & Ruzicka, 1993; Landau, 1995). Internality has also been associated with the initiation and maintenance of behavior change in areas such as weight loss, smoking cessation, athletic performance, and medical and substance abuse treatment programs (Lefcourt, 1982). Additionally, numerous studies have also found a positive relationship between locus of control and academic achievement (Lefcourt, 1991). In their review, Stipek & Weisz (1981) suggest that students with internal orientations receive higher grades and higher scores on achievement tests than other students. In addition, other dimensions of internal control that have been associated with productive living include a progressive ideology toward life, an optimistic view toward the future, effective problem solving skills, a positive outlook, and a perception of difficult situations as creative challenges (Schaefer, 1983).

#### Externality

Conversely, external locus of control has been linked to depression (Benassi et al., 1988), psychopathology (Lefcourt, 1976), poor self concept (Goodman et al., 1994), and low academic achievement (Lee & Dengerink, 1992). However, while externality has been associated with adverse characteristics, some investigators hypothesize that external locus of control appears to be a protective factor which allows an individual to refrain from feelings of

failure, remorse, or blame after experiencing a negative outcome (Rotter, 1966; Smith, 1985). This idea has been controversial in the literature, however, since many others have linked external locus of control orientations with feelings of helplessness, hopelessness, and self deprecation (Goodman et al., 1994).

# Relationship Between Locus of Control and Other Related Constructs Self esteem

Although locus of control has been associated with several personality constructs in the literature, two that have received considerable attention are self esteem and self efficacy. To better understand the locus of control construct, it is necessary to describe these other constructs as well. Self esteem has been defined as the assessment individuals make and maintain about themselves. The degree of self esteem describes the extent to which a person perceives himself to be capable, successful, and worthy (Goodman et al., 1994). Researchers suggest that locus of control is one component of self esteem (Wood, Hillman & Sawilowsky, 1996). To further support this premise, various researchers utilizing a variety of measures have consistently found significant yet small relationships between locus of control orientation and self esteem (Dyal, 1984). Those who report higher internal orientation scores also report higher self esteem, and reports of external locus of control orientation have been linked to low self esteem (Enger, Howerton & Cobbs, 1994). In a qualitative study of black, urban mothers with handicapped sons, locus of control was positively associated with self esteem and feelings of personal empowerment (Morris, 1992). Moreover, Goodman et al. (1994) report that women with the lowest self esteem and the most external locus of control orientations have the

worst view of themselves compared to other women in the sample.

# Self efficacy

Locus of control has also been closely tied to the construct of self efficacy. Self efficacy is an individual's perception of how well he or she expects to cope in a particular situation (Bandura, 1977). The original theoretical definition of locus of control as defined by Rotter suggests that human behavior is defined in terms of expectancy values, which is the probability that a particular reinforcement will occur as a result of a specific behavior. Perceptions of self efficacy influence how much effort people will expend and how long they will persist in adversity or when confronted with challenges (Bandura, 1982). Perceptions of self efficacy are influenced through relationships with others (Troutman & Cutrona, 1986). The idea that these two constructs are related is clear upon careful review of their conceptual definitions. In fact, the two are often used in the literature interchangeably. As with its counterpart locus of control, self efficacy has also been positively associated with a variety of behaviors.

## Shifts in Locus of Control Orientation

Because of the substantial body of evidence which suggests that internal locus of control orientation is related to a variety of positive behaviors, and the notion that individual orientations are malleable throughout the life span, researchers have had significant interest in determining if locus of control orientation can shift toward internality (Nowicki & Duke, 1983). A number of investigators utilizing a variety of interventions have been successful in

documenting changes towards internality with adults (Braton, 1981; Newsome & Foxworth, 1980; Roueche & Mink, 1976; Tait, 1976). For example, in a study of thirty black mothers, a systematized counseling program over the course of six weeks was effective in facilitating a significant change to a more internal orientation (Andrews & Gregoire, 1982)

#### Locus of Control and Parenting

There is considerable evidence in the literature that suggests there is a relationship between locus of control orientations and parenting. A theoretical framework that has received substantial attention in the field of parenting and supports this premise is Jay Belsky's model of the determinants of parenting (1984). This model originated in the literature of child maltreatment and suggests that parental functioning is determined by three domains: characteristics of the child, contextual sources of support and stress, and the psychological resources of the parent. Psychological resources are the interaction of one's developmental history and personality characteristics. One such personality variable which has been identified as a critical component to parental functioning is locus of control (Stevens, 1988; Swick & Graves, 1986).

Research has linked parental locus of control to a variety of outcomes in relation to parenting. For example, in a study examining social support, locus of control, and parenting behaviors, Stevens (1988) postulates that an important predictor of parenting skill for black and white adult mothers was locus of control. Specifically, internal scores for African American mothers on an abbreviated version of the ANSIE were associated with the mother's ability to provide a stimulating environment for children as evidenced by the HOME measure.

Researchers have also found a correlation between parental locus of control and perceptions of children's behavior problems (Harris & Nathan, 1973). That is, parents who had external locus of control scores believed that their children's behavior problems were a result of external influences, while parents who related their children's problems to parental behavior had significantly lower external scores. The authors conclude those parents who are more likely to believe that life and life events are determined by fate, are also more likely to believe that child rearing and parenting consequences are based upon fate or chance and act accordingly. Moreover, some suggest that those parents who feel powerlessness in their own lives allow these feelings to transcend into their role as parents (Swick & Graves, 1986) and children who live in and experience these powerless environments tend to model the same attributes in their own attitudes and behaviors (Kempe & Kempe, 1978).

According to the literature, parents have been identified as the basic role model for the development of locus of control orientation (Swick, 1984). External child orientations have been associated with external maternal orientations and protective child rearing styles (Barling, 1982). The authors contend that this association makes sense as protective mothers allow their children to have less opportunity to experience power and control in life. On the contrary, mothers of internal children scored significantly more internally than mothers of external children and there were positive significant correlations between children's and mother's internality/externality scores (Chandler, Wolf, Cook & Dugovics, 1980). The investigators also documented that internal children had parents who employed authoritative methods of discipline, were accepting, nonrestrictive and rewarding of independence, and used positive rather than negative verbalization techniques.

#### **Parenting**

## Competent parenting

The literature has been clear in documenting parenting behaviors that lead to healthy outcomes for children. Evidence strongly supports that stimulating, organized and safe home environments, supportive social networks, age appropriate developmental expectations, and positive discipline strategies are among the significant predictors of competent parenting. For example, researchers have found evidence which supports that what parents know about child development is positively related to parenting skill (Cook, 1991; Stevens 1984). Parental knowledge of child development has been found to be positively associated with mother's responsivity (Stevens, 1984), and positive parent child interactions (Chandler, Wolf, Cook, & Dugovics, 1980). Fulton et al., (1991) found that increases in teenage mothers' knowledge of infant development were positively correlated to increases in knowledge regarding appropriate parent-child interaction. In addition, parents' knowledge of child development has been negatively associated with punitive discipline (Johnson, 1993). Findings suggest that parents who have abused or neglected their children are less knowledgeable about child development (Twentyman & Plotkin, 1982) and have poorer problem solving skills (Azar, Robinson, Hekimain & Twentyman, 1984). In other words, abusive and /or neglectful parents were found not only to have expectations for the child's behavior which were inappropriate for the child's ability but also less able to select adaptive strategies in challenging situations. Furthermore, parents who were not considered to be abusive but did admit to a punitive child rearing philosophy were also less knowledgeable of child development, had less social support,

and were more depressed than non-punitive parents (Reis, Orme, Barbera-Stein & Herz, 1990).

#### Relationship between competent parenting and child outcomes

An abundance of empirical evidence suggests that children who are parented by psychologically healthy adults, who provide safe, stimulating environments, and interact in responsive, nurturing ways experience a host of positive outcomes. For decades, investigators have been documenting significant correlations between parenting behaviors and child outcomes. For example, in their review of the literature, Maccoby & Martin (1983) concluded that warm, involved, nurturing parents had children who were competent, responsible, independent, confident, achievement oriented, and able to control aggression. Furthermore, parental sensitivity to task, level of aggravation towards child, and extent to which independence is encouraged have been linked to secure attachments and children's problem solving skills (Easterbrooks & Goldberg, 1984). Also, for over 30 years, researchers have linked developmental outcomes of children, especially in the areas of cognitive and social emotional growth, to the quality of the home environment (Gottfried, 1984). Evidence supports that characteristics such as the provision of appropriate play materials, the adequacy of available space, the availability of learning materials, and number of books are positively associated with cognitive measures such as achievement test scores and IQ scores (Bradley & Caldwell, 1976; Wachs, 1992). Clearly, the literature demonstrates that warm, responsive, sensitive parents who are in tune with their children's capabilities and developmental tasks promote emotional security,

behavioral independence, social competence and intellectual development in their children (Belsky, Lerner & Spanier, 1984).

## Ethnicity and parenting

A risk associated with the identification of competent parenting behaviors is that often the standards that are accepted and observed among majority families are assumed to be the same as those for minority families, as well. When these majority standards are not adopted by the minority group, differences are often described in terms of deficits (Kelly, Power & Wimbush, 1992). This idea of a deficit focused frame of reference is particularly true for African American families whose parenting styles have been characterized as harsh, rigid, and strict (Alvy, 1981). Cultural and contextual perspectives are now being examined, however, to better understand African American parenting practices that have been characterized as more authoritarian and parent-focused than those used by middle class whites. For example, African American mothers have been described as failing to consider child needs and having high expectations for obedience toward parents and parental authority (Baumrind, 1972). However, more recent research suggests that contextual factors influence parenting style and has begun to attribute this difference in parenting styles to the community context (Baumrind, 1991).

For instance, African Americans in the United States are more likely to be living in poor and dangerous communities than whites. Some suggest that authoritarian parenting practices are a protective function for youth who are more likely to be living in poor and dangerous communities (Baumrind, 1991). Brody et al., (1998) have defined a phenomena

referred to as "No Nonsense Parenting" among African American parents. This parenting style is characterized by high levels of parental control, including physical punishment, and high levels of affectionate behaviors. It is based upon the work of those who have investigated black families and the idea that parents try to raise their children in order for them to function effectively in their environments. Researchers suggest this method is an adaptive parenting approach for parents living in dangerous communities, and is intended to communicate a vigilant concern for the child's welfare where disobedience could have sober consequences. These stringent parenting practices are believed to promote children's self regulatory competencies and protect them from danger by discouraging disobedience and antisocial activities (Kelly, Power & Wimbush, 1992). While this strict parenting style has been correlated with negative outcomes for non-minority youth, it appears as if authoritarian parenting is less deleterious for minority children (Baldwin, Baldwin & Cole, 1990), suggesting that minority youth living in a dangerous community may benefit from stricter parenting. An explanation may be that since the cultural and community context is influential in determining norms of parenting practices, children may perceive "No Nonsense Parenting" to be evidence of parental involvement and concern, reducing the likelihood that the parent is considered to be excessively harsh or punitive (Lamborn et al., 1996).

## **Parent Education**

The significant predictors of competent parenting include the ability to provide stimulating, organized and safe home environments, establish supportive social networks,

develop age appropriate developmental expectations, and engage in positive parenting behaviors. However, researchers have substantiated that parents' ability to care for and nurture their children may be jeopardized for a variety of reasons. Living in a stressful or chaotic environment, having limited support networks, and lacking knowledge of normal child development may limit parents' capacity to foster their child's optimal development (Seitz, Rosenbaum & Apfel 1985). Thus, targeted outcomes of parent education programs often include the development of the qualities that promote competent parenting and/or the amelioration of those factors that jeopardize families. Furthermore, the important connection between competent parenting and child development has long been supported by the literature (Maccoby & Martin, 1983). Evidence suggests that child development is multiply determined, dependent upon family and community influences, and any intervention that focused solely on the child is likely to have limited success (Belsky, 1984). Parent education programs have the potential to directly and indirectly influence the child by creating positive parent, family and contextual changes. These changes within the family system and community context can lead to significant and sustainable impacts for children which are more likely to continue long after the intervention has subsided. (Black, 1994).

Admittedly, the noble goal of helping all parents to create change through enhancing personal development and/or strengthening parent-child interaction and parenting skills can not always be achieved by a parent education program. However, there is a great deal of evidence which exists suggesting that parent education programs are effective in creating a host of positive changes in parents and in the children of parents

who have participated (Black et al., 1994; Brems, Baldwin & Baxter, 1993; Powell, 1983). Changes in children as a result of their parents' participation in parenting education that have been documented include improvements in cognitive ability (Gray & Ruttle, 1980; Madden, O'Hara & Levenstein, 1984; Slaughter, 1983), social skills (Mischley, Stacy, Mischley & Dush, 1985; Seitz, Rosenbaum & Apfel, 1985), achievement (Phannenstiel & Seltzer, 1989), more positive affect when interacting with the parent (Giblin et al., 1984), and child resiliency (Wyman et al., 1999).

In general, parents who participate in parent education report higher levels of control in their lives and their children's lives as a result of such programs (Brown & Swick, 1979; Gordon, 1977; Levenstein, 1977; Watson, Brown & Swick, 1983). Outcomes for parents involved in parenting education include positive changes in parental attitudes (Anchor & Thomason, 1977; Dembo et al., 1985: Taylor and Beauchamp, 1988; Telleen, Herzog & Kilbane, 1989), enhanced knowledge of child development (Field, 1981; Fulton, Murphy & Anderson, 1991; Roosa, 1984; Stevens, 1988; Taylor and Beauchamp, 1988), and the development of positive child rearing skills (Brems, Baldwin & Baxter, 1993; Fox, Fox, & Anderson, 1991; Mischley, Stacy, Mischley & Dush, 1985). For example, when compared to a waiting list control group, an experimental group of parents improved parenting perceptions and discipline practices following a 4 week, 10 hour parent education program. Changes in discipline practices were sustained through a 6 week follow up assessment (Gross, Fogg & Tucker, 1995). Additionally, Head Start mothers were observed in their homes to make significantly fewer critical remarks and commands, to use less harsh discipline, and to be more positive and competent in

parenting practices when compared to a Head Start control group not receiving the program. The intervention was an 8 week parent education program designed to teach effective parenting skills to families with young children (Stratton, 1998).

# **Home Visitation Parent Education**

While parent education is delivered through a variety of strategies, an increasingly popular way to reach families with young children is through home visitation services, or programs that go into communities to reach families where they live. Some researchers suggest that parents respond well to home visitation programs and early reports indicated high levels of success associated with such programs (Olds & Kitzman, 1993). This research resulted in an influx of resources allocated to home service interventions and thousands of programs across the United States (Gomby, Culross & Behrman, 1999). In general, caution must be extended when analyzing the effectiveness of home visitation since it describes a delivery strategy rather than a program. Within this strategy there is a great deal of disparity among individual programs and their primary activities. Clearly, these contextual differences lead to a host of different outcomes, variable success rates and mixed findings (Gomby, Culross & Behrman, 1999). However, while the results have been mixed, there is evidence that suggests that home visitation programs can be an effective way to reach families with young children (Campbell, 1994; Olds et al, 1986; Hardy & Street, 1989). For example, Olds et al., (1986; 1999) demonstrated positive results of home visitation using outcomes related to child maltreatment, including child abuse and injury, and maternal life course. Using professional nurses as home visitors, there was an 80% decrease in substantiated abuse and neglect cases in

the first two years of life in the treatment group when compared to a control group sample. Moreover, fifteen years later, results indicated the home visited women had fewer subsequent pregnancies, fewer months on welfare, fewer arrests and convictions, and less alcohol and drug problems. Furthermore, the program had the greatest benefit to the mothers most at risk. Hardy and Street (1989) concluded that there was a significant reduction in children's hospitalizations, a sharp reduction in suspected child abuse and neglect, and a reduction in the substantiated reports of child abuse and neglect in a home visited group compared to a control group who did not receive the intervention. Other investigators examining a home visitation program for families with newborns at risk for poor outcomes found that mothers in the experimental group reported numerous positive outcomes including improved parenting efficacy, decreased parenting stress, and increased use of non-punitive discipline techniques when compared to a control group not receiving services (Duggan et. al., 1999). Finally, after 18 months of bi-weekly home visits to an extremely high risk population of single, low income, African American women with substance abuse histories, the experimental group was more likely to provide responsive and stimulating home environments than a randomized comparison group (Black, 1994).

While each of the above interventions had different goals and program specific activities to address them, all of the authors suggest that the key to helping vulnerable families through home visitation interventions is in the supportive relationship between the home visitor and the program participant (Black et al., 1994; Duggan et al., 1999; & Olds et al., 1999). It is through the connection between the staff member and the family that change is expected to occur. Although there seems to be agreement on the potential that

home visitors have in influencing a parent's feelings of self and his or her behaviors, there is a great deal of controversy regarding whether or not home visitors should be professionals or paraprofessionals. Thus far, evaluations of both models have yielded inconsistent results. However, there does appear to be consensus that regardless of experience and background, home visitors must be well trained and supervised to effectively serve families (Gomby, Culross, & Behrman, 1999).

In general, researchers agree that there are other important elements of successful home visitation programs, as well. For example, differences in life circumstances, emotional status and individual needs of potential clients require that programs are willing to vary content and duration (Barnard et al., 1987). Parents should have choices so that the program is individualized to their own needs as much as possible. In addition, while the program's curriculum is an important element, home visitors may need to set it aside to deal with a family's more critical concern or unanticipated situation. The ability of staff to respond timely and sensitively to family issues is widely accepted as one of the strengths of home visitation (Gomby et al., 1999) and should be incorporated into the program's design.

Another element of successful home visitation programs is related to program dosage. Dosage refers to both the intensity and duration of the intervention. Models vary widely in their practices, and some studies suggests that those who receive more visits reap more benefits (Black et al., 1994; Olds et al., 1999; Wagner & Clayton, 1999). While a definite number of visits or length of an intervention is not known, some have speculated that a minimum of 4 visits, or three to six months of participation, is needed before change can occur. In addition, it is possible that programs with low intensity levels, such as monthly visits, may not provide an

appropriate level of visiting to expect changes within the target population (Gomby, Culross, & Behrman, 1999).

A final recommendation from those analyzing research on several national home visitation program models is that to be effective, programs must integrate social support with information. In general, the relationship between the home visitor and the parent is critical to the course of change for families, and the effectiveness of home visitation programs. Yet, if families are to achieve success in changing attitudes, skills and behaviors, the support must be supplemented with a curriculum that provides information, practical advice, or other assistance (Gomby, Culross & Behrman, 1999).

## Summary of the Literature

This comprehensive review of the literature serves multiple purposes. First it intends to provide a thorough definition of the locus of control construct, and a comparison between locus of control and other related concepts. Secondly, it discusses the various factors which develop and refine individual locus of control orientations. This review also describes the significance of internal orientations in relation to human behavior and personality characteristics. In addition, findings from studies are presented which demonstrate the linkage between internal locus of control and effective, responsive parenting. Finally, the literature base on parenting is explored, as well as parent education and home visitation service delivery models to better understand their ability to influence and shape the attitudes and behaviors of mothers with young children.
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The overall goal, however, is to provide a rationale for this research examining the locus of control construct in relation to parenting behaviors. Studies are presented which support the notion that internal locus of control is related to positive behaviors, that parental locus of control impacts the parenting process and children, and that interventions have been successful in influencing locus of control orientation. Furthermore evidence documents that parent education programs are effective in creating positive changes in families, and home visitation can be an effective delivery model. Therefore, empirical evidence has been presented which supports the study of locus of control within the context of parenting and parent education.

#### **Program Information**

This section presents information about the Building Strong Families home visitation, parent education program. Building Strong Families is designed for limited resource and/or limited literacy parents with children newborn through three years of age. One of the guiding principles of this study is to determine the impact that BSF has upon the lives of those mothers who participate in the program.

#### **Building Strong Families curriculum**

The Building Strong Families curriculum consists of multi-cultural, cartoon style flipcharts and short videotapes. The flipcharts and videos present scenarios that parents often encounter with their young children and prompt discussion of behavioral choices that parents can make. Supplemental learning activities are used in conjunction with the flipcharts. These activities are experiential in nature, and support key concepts found in the curriculum. In addition, concept sheets, or lesson summaries, are left in the home with the participants to reinforce the visit in the absence of the parenting instructor.

The curriculum was designed specifically to meet the needs of a limited resource and/or limited literacy audience. The materials make no assumptions about parents' support systems, extended family networks, spousal support, or ability to read. The curriculum has four units that work together to present concepts that will help the parent, as well as the child, develop. The units are: How Kids Develop, which explores normal stages of child development; Helping Kids Behave, which presents positive discipline alternatives that are consistent with the stages of development; Playing to Learn, which focuses on the importance of positive parent-child interactions; and Smart Living, a process focused, personal development unit for the parent which addresses individual strengths and goal setting.

The program is a strengths based program in that it is designed to reinforce those things that parents are already doing well, and introduce new information and ideas in areas that present an opportunity for growth. Parents are encouraged to determine their own starting point in the curriculum by identifying their personal parenting concerns early in the program. In addition, the BSF curriculum was designed to be fluid and flexible, and participants and instructors are encouraged to move between and among units as needed.

#### **Building Strong Families program delivery**

The BSF program is delivered through trained paraprofessionals who are recruited from the communities in which they live and work, and have similar backgrounds and life experiences to the target population. The program is delivered primarily in the participant's home, and occasionally in small group settings. The parenting instructors present the BSF curriculum and serve as a resource for additional parenting information assistance, as well as a resource for referrals to other family support programs in their community. Typically the sessions are one to one and a half-hours in length and the intervention is short term, lasting between 8 and 12 weeks.

Eligibility criteria for enrollment in the program is minimal. The program is available to any caregiver, male or female, who has at least one child three years of age or younger and lives in a county that offers the BSF program. The recommended income guideline for participation is 185% of the poverty level, which is consistent with other state eligibility assistance programs. Participation is voluntary, and parents are at liberty to choose whether or not they will enroll and/or graduate from the program. While many participants are referred as a result of a court mandated ruling, BSF is not a regulated program, and participants are free to choose. However approximately 90% of the families referred enroll, and of those 90% complete the program. In addition to mandated sources, other referral sources include juvenile court, WIC clinics, health maintenance organizations, Head Start, homeless shelters, emergency room teams, community mental health agencies, jails, employability programs, hot lines, word of mouth and self. Clearly, the level of need and the intensity of services required for families referred through this assortment of community partners is extremely diverse. Along with participation in BSF, many clients also participate in substance abuse, mental health, infant mental health, and other therapeutic treatment as well as needs for permanent and/or safe housing, employment, education, literacy, and/or other community services.

#### Program goals, objectives, and activities

The BSF program intends to indirectly impact the lives of children as a result of directly influencing parenting attitudes and behaviors. The program's mission statement is "to provide caregivers with the knowledge and skills necessary to help children reach their potential". Below are the program's goals, objectives and activities.

# Goal 1: The program will enable parents to create positive and safe environments for children ages 0-3 years.

**Objective:** Parents will improve the physical environment of their home over the course of the program.

Activity: Teach childproofing and safety concepts that are presented in the How Kids Develop and Helping Kids Behave flipcharts, videotapes, concept sheets and supplemental activities.

**Objective**: Appropriate parent-child interaction will improve as a consequence of the program.

Activity: Teach positive parent-child interaction concepts which include skills to

enhance play, touching, verbal and nonverbal communication, positive discipline, and care taking covered in the How Kids Develop, Helping Kids Behave and Playing to Learn flipcharts, videotapes, concept sheets and supplemental activities.

### Goal 2: The program will facilitate the personal development and self care of the parent.

**Objective:** Parents' social support network will improve as a result of the program.

Activity: Refer parents to appropriate community agencies; teach parents to identify and access informal and formal support systems through supplemental activities included in the curriculum.

**Objective:** Parents will experience changes in self-efficacy or locus of control as a result of the program.

Activity: Teach participants the importance of planning, goal setting, resiliency, and identifying personal strengths as highlighted in Smart Living.

**Objective:** Parental feelings about self will change as a consequence of the program.

Activity: Teach participants to apply planning and goal-setting concepts taught in Smart Living to their own lives.

# Goal 3: The program will enable parents to respond to children in ways that are appropriate to the developmental stage of the child.

**Objective:** Parental expectations of children will change as a result of the program.

Activity: Teach participants developmental milestones for children newborn

through three years using the How Kids Develop flipchart, video, and concept sheets.

**Objective:** Parents will improve their ability to respond to children in ways that are appropriate to the age/stage of the child as a result of the program. **Activity:** Help participants apply concepts regarding child development, positive discipline, and parent-child interaction that are covered in How Kids Develop, Helping Kids Behave, and Playing to Learn in their interactions with their children.

#### Program values

Investigators analyzing research of several home visitation program models implemented nationally have deducted that to be effective, programs must integrate social support with information. The relationship between the home visitor and the parent is critical, yet it is important that the program content, or curriculum, is delivered as intended as well (Gomby, Culross, Behrman, 1999). The Building Strong Families program and staff value both the content of the materials and the process of program delivery, and strive to integrate these elements throughout the intervention. These core values were identified early in the program's development and served as a benchmark for program planning, implementation, and evaluation decisions. In general, the literature suggests that parental sensitivity can be enhanced by reducing stress, improving social support, increasing parents' knowledge about child development, enhancing mothers' self esteem and self efficacy, and providing practical assistance (Crnic et al., 1983; Culp et al., 1998), and serves as a guiding principle for the program. In regard to content, the curriculum was based upon empirical evidence from the parent-child interaction, family relations, child development and abuse and neglect literature that supports healthy parenting principles and positive child outcomes. For example, parents' knowledge of child development has been found to be positively associated with mother's responsivity (Stevens, 1984), and positive parent child interactions (Chamberlin, Szumowski & Zastowny, 1979) and negatively associated with punitive discipline (Johnson, 1993). In addition, warm, nurturing parents with clear expectations and reasonable control had children who were competent, responsible, independent, confident, and able to control aggression (Baumrind, 1991; Maccoby & Martin, 1983). In light of these findings, information on appropriate expectations regarding the normal course of child development, positive discipline strategies, and positive parent-child interaction were included as key elements in the BSF curricula.

The process of the BSF program is valued as an integral component of the program as well. Smart Living, a process-oriented unit intended to facilitate participants' self care and personal development, was created to assist in building the paraprofessionalclient relationship and guiding clients through a personal growth and development sequence. In addition, a thorough review of the adult learning, extension education, home visitation and mentoring literature was conducted to determine the most effective delivery strategy. Studies suggested that models integrating support and education were an effective design, and early results of home visitation evaluation indicated it is an effective way to reach families with young children (Olds et al., 1986). Also, while the literature viewled inconsistent results regarding the effectiveness of a paraprofessional versus a

professional model, several researchers have found an indigenous peer instructor to be effective working with similar audiences (Bradley & Martin, 1994). These findings, in conjunction with a 25-year history of home visitation programming within the organization, were the foundation for developing a paraprofessional, home visitation model for BSF.

#### **Building Strong Families program evaluation**

A pilot evaluation of the BSF program was completed in October 1995. An independent evaluator provided leadership to the evaluation team that consisted of direct service and administrative staff involved with the program in Wayne, Gingham, and Jackson counties and the state level staff of MSU Extension. The pilot study focused on three major areas: changes in parents' perceptions of their interactions with their children; parents' satisfaction with and perceptions of the program; and instructors' assessment of the impact of the program on the family. Data to assess changes in parents' perceptions of the parent-child interaction was collected at the beginning and the end of the program. Parent satisfaction and instructor assessment questionnaires were administered at the completion of the program. Pre and post assessments on parents' perceptions of parenting behaviors were analyzed and significant results were found. Specifically, after participating in the program, parents were more likely to: talk and listen to their child; make up games and play with their child; encourage their child to do things with his/her hands; encourage their child to play with other children; encourage their child to do things on his/her own; and let their child make choices; help their child be safe and secure;

encourage their child to play with other children; praise their child; discipline without spanking; give their child time to calm down during tantrums; and set appropriate limits for their children. In addition, parents reported being satisfied with the program and believed it to be helpful. Instructor assessments supported evidence that the program was effective for participants as well.

#### **CHAPTER III**

#### **RESEARCH METHODOLOGY**

This section provides information on the research design used for this study, including the sampling scheme, the instrumentation, data collection and data analysis.

#### **Research** Design

This study on the influences of a home visitation parent education program on locus of control orientation and parenting behaviors of limited resource women is the quasi-experimental design, Pretest-Posttest Non-equivalent Comparison Group. Figure 6 illustrates the study's research design.

Quasi-Experimental Design						
<u>GROUP</u>	<b>PRETEST</b>	<b>INTERVENTION</b>	POSTTEST			
Experimental	X	x	x			
Comparison	х		x			

### Figure 6: Research Design

A true control group was not feasible, as local BSF administration did not feel comfortable creating groups for experimental and control conditions through random assignment from the pool of program referrals. To eliminate other explanations for any changes in the experimental group, however, a group as similar as possible on key variables was needed to serve as a comparison. A comparison group would help to isolate not only the effects of the experiment but also the effects of events that occur outside of the experiment (Babbie, 1992). Therefore, it was considered appropriate in this situation to design a study which utilized a non-equivalent comparison group as opposed to a true control group with random assignment.

#### **Research Sample**

The unit of analysis for this study is limited resource mothers. The sample size is 50 mothers in the experimental group and 50 in the comparison group. This figure was based on a power analysis by Pecora et al., (1995), which recommended a sample size of 50 per group for an alpha level of .05 and a moderate effect level of .80.

The sampling scheme for the experimental group is all of the mothers 18 years, who has at least one child three or younger or is pregnant, participating in the Building Strong Families (BSF) program in a large, urban, Midwest city. Building Strong Families is one of the community based educational programs offered in the city through the land grant Cooperative Extension System.

The Building Strong Families program is a home visitation, parent education intervention for families with children newborn through three years of age. The program is delivered by trained paraprofessional staff indigenous to the community on a one-toone basis in the client's home. Approximately 150 mothers in this city participate in the program each year. The referral sources vary, but most participants are referred by health care providers, substance abuse treatment centers, the Family Independence Agency, schools, head start, and child protection teams. Referrals are based on a range of circumstances and a continuum of participant needs. For example, some families self enroll with an interest in learning more about parenting; some are referred following a visit to the local Emergency Room after a child's injury; some are referred by doctors who have concerns about parents' knowledge or skills; and some are referred as a result of a court order for substantiated child abuse or neglect. However, Building Strong Families is a voluntary program. That is, each participant has the choice of enrolling in and completing the program, regardless of the situation that elicited the referral, or the referral source.

Beginning in April 1999 through August 1999, each mother 18 years and older, who had a child three years of age or younger or was pregnant, that enrolled in the BSF program was asked by her parenting instructor to participate in the study. Women under the age of 18 were excluded from participation. This decision to exclude mothers under the age of 18 was based upon the literature which suggested that locus of control orientation is influenced by age. Teens have been associated with more external orientations when compared to adults, which is probably a result of the high levels of parental, educational and societal controls imposed upon them (Morganti et al., 1988). Because of the propensity for teens to score in the external direction, they were excluded from the sample to avoid skewing the data toward externality. All fifty five of the women approached agreed to participate in the study. Each woman was given a brief

description of the study, asked to sign a consent form (Appendix A) and complete enrollment paperwork (Appendix B). After the enrollment procedures were finished, the parenting instructor asked each participant to complete two pretests for this study as part of the initial home visit. Each participant was assigned a family number by her instructor that was recorded on all of her assessments. No other identifying information appeared on any of the forms which were sent to the investigator. The parenting instructors maintained a separate list in their files, which linked each family number with the participant's name and address.

The non-equivalent comparison group for this study was identified from clients of the Women, Infants, and Children (WIC) program, a federally funded supplemental food and nutrition education program for limited resource women and their children, administered locally by the Urban League. WIC's target population is pregnant women, and women with young children. An examination of WIC records revealed that their caseload matched the BSF participants on the key demographic variables such as ages of children, ethnicity, income, family composition, and educational level. In addition, the Urban League's WIC program provided services within the same geographic area that was served by BSF. Since the target population and service areas were similar, the WIC Urban League program was selected as the most appropriate recruitment site for the comparison group.

To recruit volunteers, this investigator sat in the WIC waiting room on 6 separate dates between March 1999 and August 1999. As the women signed in for their quarterly WIC appointment, the investigator asked if they would be interested in participating in a research project. Only those mothers who were not participating in the

Building Strong Families program and 18 years of age or older who were pregnant or had at least one child three or younger were eligible to volunteer. Mothers were offered a \$10 gift certificate to a local grocer in exchange for participation. Fifty nine mothers were asked to participate in the study. Fifty eight agreed to enroll.

Volunteers were given a brief description of the study and asked to sign a consent form (Appendix C). Following the completion of their consent and enrollment forms (Appendix D), the mothers were assigned a number by the investigator for identification purposes. The numbers were in chronological order and the corresponding number was placed on all forms that were completed by participants. Those who volunteered to participate completed their pre assessments during their WIC appointment on the day of recruitment. According to WIC guidelines, participants must return to the WIC clinic approximately 12 weeks later for their next food coupon pick up. At that appointment, volunteers completed the post assessment and received their stipends. Fifty women were to be included in the comparison group, but 58 were invited to participate in the study to compensate for those who did not follow up with their WIC appointments. Fifty of the 58 women enrolled completed both the pre and post testing and were included in the comparison group sample.

#### **Research Instruments**

Based upon this research's purpose and hypotheses, the outcome measures or dependent variables for this study are locus of control orientation and parenting behaviors. The following instruments are used in this research: (1) The Adult Nowicki-

St (P Ī ad ar 'n te 19 u th C Va bi be SC W as Va St Strickland Internal-External Control Scale (ANSIE), (2) Parenting Behavior Assessment (PBA), and (3) Family Record Form.

#### The Adult Nowicki-Strickland Internal-External Control Scale (ANSIE)

The Adult Nowicki-Strickland Internal-External Control Scale (ANSIE) is a selfadministered, self report, pencil and paper questionnaire (Nowicki & Duke, 1974). There are 40 items requiring yes or no answers. Unlike other existing locus of control instruments, the ANSIE is specifically designed to assess locus of control orientation in terms of internality versus externality among noncollege adults (Nowicki & Strickland, 1983). The reading level is less demanding and the true-false format is more easily understood than for other instruments (Lefcourt, 1991). The instrument was developed through an adaptation of the Nowicki-Strickland Internal-External Control Scale for Children (CNSIE) and was selected due to its suitability for noncollege adults, construct validity, and known reliability.

The questions were developed to measure one's perceptions of the connection between his/her behavior and its consequences. Examples of questions include "Do you believe that most problems will solve themselves if you don't fool with them?", "Are some people just born lucky?", and "Most of the time, do you feel that you can change what might happen tomorrow by what you do today?". A copy of the ANSIE is included as Appendix E.

Available information on the validity of the ANSIE states that the construct validity is based on information from more than 400 studies that have used the Nowicki-Strickland tests. A number of factor analyses have been computed for various

populations. These reports suggest that some factor structure overlap exists among the three major scales for measuring locus of control orientation in adults: Rotter (1966), James (1973), and the ANSIE, and presents evidence that the instrument is a parallel scale constructed for different populations (Nowicki & Duke, 1983).

Available information suggests that the ANSIE has an acceptable reliability level as well. Reliability for internal consistency was measured with split half reliability indexes, mostly between .74 and .86 (Nowicki & Duke, 1983). Test-retest reliability figures have varied from .65 with a 7 week interval to .83 with a 6 week interval and .56 with a one year interval (Lefcourt, 1991).

The ANSIE was normed on American Caucasian college adults, although subsequent scales have been adapted for and tested on other populations as well. Various investigators' results suggest that similar findings are reported when subjects are drawn from various cultures and comparable socioeconomic levels although variations in mean scores across groups have been reported (Nowicki & Duke, 1983). In addition, ANSIE scores have been found to be relatively free of social desirability bias and unrelated to intelligence scores or gender.

The instrument is scored by assigning one point for each external response that is selected. External responses are indicated on an answer key, which accompanies the instrument. A score is assessed by adding together the total number of external responses. Therefore, the higher the number, the more external the orientation. Possible scores range from 0-40.

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#### Parenting Behavior Assessment (PBA)

The Parenting Behavior Assessment was developed as an adaptation of the Q-Sort Inventory of Parenting Behaviors. The PBA was created specifically to evaluate the effectiveness of the BSF program. It measures parental perceptions of parenting behaviors. It is designed to assess parent-child interaction, as well as the consistency and appropriateness of parent behavior in relation to child development principles. There are no known reliability or validity measures on the PBA. However, an expert panel of reviewers verified the content validity of the measure to ensure that items in the measure reflected positive parenting practices. Additional reviewers verified that all of the items included on the assessment were taught in the BSF curriculum.

To be consistent with the principles of the program and the needs of the target population, the learning styles of limited resource/limited literacy audiences are considered in the administration of the instrument. There are thirty-two cards, each one representing a parenting behavior addressing the physical, intellectual, social, and emotional development of the child. Each of the behaviors identified on the cards can be directly linked to information presented in the BSF curriculum. Examples of statements are: "I provide things for my child to play with", "I help my child feel safe and secure", "I let my child make choices", and "I discipline my child without spanking". A copy of the instrument is included as Appendix F. An innovative Likert Scale is created to assist the participant in ranking her perception of each of the particular behaviors. Five envelopes are labeled "Like me—all of the time", "Like me—most of the time", "Like me—some of the time", "Like me—hardly ever", "Like me—never". After reading a card that identifies a behavior, the mother selects the envelope which best reflects her

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behavior and places the card inside the envelope. This process is continued until all 32 behaviors are assessed and placed in one of the 5 envelopes.

The cards remain in the envelopes until the parenting instructor is able to code and enter the scores. A numeric value represents each of the envelopes, with five being the most frequent behaviors and one being the least. The corresponding values are entered upon the score sheets and the figures are added to produce an overall score for all 32 behaviors. Composite scores range from 32, the lowest possible score, to 160, the highest. In addition, each of the 32 behaviors can be assessed individually as well.

The PBA has been used to evaluate the effectiveness of the Building Strong Families program in relation to parental perceptions of changes in parenting behaviors. Program participants complete the instrument on their first visit prior to any educational intervention, and then again on the last. Each of the individual items is analyzed for movement between pre and post assessment. Reports are generated on an annual basis to describe program outcomes for funders and other program stakeholders. Currently, there are over 1,600 families who are in the PBA database managed at the university.

#### Family Record Form

The Family Record Form collects demographic information (Appendix H). Parenting instructors interview mothers to complete the instrument. Information includes, gender, age, education level, income level, family composition, race, household members and ages, residency, and relationships with community organizations. This information is used to describe the demographic distribution of those who participate in the program at the state and county level. The participant profiles are included in reports to funders and other program stakeholders.

#### **Data Collection Procedures**

The investigator met with the four Building Strong Families program staff assigned to the target community in November 1998 to request their assistance in data collection. All four parenting instructors agreed to cooperate. Each of the parenting instructors had been trained to administer the PBA and Family Record Form and was collecting this data as part of their current programming responsibilities. The staff participated in additional training to administer the ANSIE and received written instructions to support their efforts during the data collection procedure. To ensure that the instrument was sensitive to the gender, ethnicity, socioeconomic level, and literacy needs of the population, the ANSIE was pilot tested with BSF program participants, prior to the beginning of the study. Each instructor was asked to administer the instrument to her clients to learn if there were any confusing or offensive sentences or words on the instrument or in the directions. No concerns were identified.

Beginning in February 1999 and lasting until September 1999, each mother 18 years of age and older who enrolled in the Building Strong Families program was given a brief description of the study and asked to participate. All of the mothers approached agreed to participate. Following a verbal commitment to participate, each participant was asked to sign a consent form, and complete the Family Record Form. Next they were asked to complete the ANSIE. Instructions for completion were written at the top of the questionnaire. Parenting instructors were permitted to assist with contextual clarification,

but were not permitted to engage in any dialogue or discussion which could influence a client's response while she was completing the ANSIE. In addition, staff were instructed to strongly encourage mothers to select one response for each of the forty items. It took approximately 10 minutes to complete the ANSIE. Next, participants completed the Parenting Behavior Assessment. Each client was instructed to think of only one of their children who were three years of age or less, and record that child's age at the top of the page. To complete the instrument, mothers reviewed each of the 32 cards that identified a particular parenting behavior and selected the response envelope that best described the frequency of their behavior. Each of the response envelopes represented a number along a Likert scale. At the conclusion of the assessment process, the envelopes were closed. The parenting instructor coded and entered the responses on a data sheet upon returning to the office. This procedure took approximately 20 minutes. The entire pre-testing process lasted 40 minutes. Staff reviewed all forms after completion and submitted to the local program coordinator who verified the records were complete and accurate. Data was mailed to the investigator on a monthly basis.

Participants in the experimental group received the BSF program following the initial interview. A parenting instructor visited the client in her home weekly and provided support and education regarding normal child development, positive discipline techniques, appropriate parent-child interaction, and parental goal setting. The intervention ranged in length from 7 to 15 weeks, with the mean being 8 weeks. At the conclusion of the program, the mothers repeated the Parenting Behavior Assessment and the Adult Nowicki-Strickland Internal-External Scale. In all, 55 mothers agreed to enroll

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in the study and 50 completed. In general, attrition can be attributed to participant relocation, staff turnovers, and changes in participant's life situation.

The non-equivalent control group for this study was recruited from clients of the Women, Infants, and Children (WIC) program, administered by the Urban League. The office was located less than two miles from the Extension office and provides services to women living throughout the same city. On 6 separate occasions, beginning in March 1999 through August 1999, the investigator sat in the WIC waiting room and solicited volunteers from the women as they signed in for their quarterly WIC appointment. A sign was posted behind the investigator announcing the opportunity to earn \$10, which elicited interest among the women. As the women registered for their WIC appointment, they were given a brief description of the study, and all women were asked personally to participate. If interested in participating, they were asked to sign a consent form. Following the completion of a consent form, each mother was assigned a number in chronological order for identification purposes. The volunteers were given a clipboard that contained photocopies of the Family Record Form, the PBA, and the ANSIE. They received verbal instructions and completed their forms while they waited for their WIC appointment. In addition, written instructions appeared at the top of the PBA and the ANSIE for reference. Due to logistical and staffing limitations at the WIC clinic, the mothers completed the PBA as a pencil and paper assessment, using a numerical Likert scale as opposed to an experiential activity like the experimental group. Although the process varied slightly, participants were still required to rate their perceptions of their parenting behaviors in relation to a specific child. It took approximately 20 minutes to administer the instruments. Before leaving the clinic, the volunteers were assigned a date

for their next appointment, which was approximately 12 weeks later. This date was shared with the investigator and recorded upon the Family Record Form for appropriate follow up.

One week prior to her next appointment, each mother was mailed a letter from the WIC staff reminding her of her scheduled visit. The investigator went to the WIC clinic at the participants' scheduled appointment times and distributed the post assessments to the volunteers as they arrived. Post testing began in June of 1999 and lasted until October 1999. Again, each mother received a clipboard with the PBA and the ANSIE attached and received verbal instructions for completion. The participant completed her instruments in the WIC waiting room and returned them to the investigator when finished. At this time, the investigator verified that all information was complete. The volunteer was thanked and received her \$10 gift certificate. In the event that the investigator could not be present for a follow up appointment, a BSF parenting instructor went to the WIC clinic for the appointment instead.

In spite of the fact that clients receive their appointment dates well in advance and that they are reminded of the appointment one week prior, 28 of the 58 women who agreed to participate in the comparison group failed to make their WIC appointment. Immediately upon missing their scheduled appointments, the investigator sent them letters in the mail, along with copies of the post assessments and self addressed stamped envelopes. A copy of the letter is included as Appendix G. Participants were asked to complete and return their questionnaires immediately to guarantee their receipt of their gift certificates. Twenty eight of the 58 mothers missed their scheduled appointment and were contacted through mail to complete their posttests. Of those who received their

instruments in the mail, twenty returned their posttests to the investigator. Eight women dropped out of the comparison group without completing the post assessment.

In sum, 55 women enrolled in the study and completed pretests in the experimental group. Fifty of those women completed posttests, as well. Fifty eight women enrolled in the comparison group and completed pretests, Fifty of them completed their posttests. Therefore, the total sample size for data analysis is 50 in the experimental group and 50 in the comparison group.

#### **Data Analyses**

Data was scored, entered, and analyzed using the Statistical Package for the Social Sciences (SPSS) Version 9.0 by the investigator. Statistical analysis for this research consisted of both descriptive and inferential statistics. Descriptive statistics were used to describe population parameters in terms of central tendency and variability. Means and standard deviations were reported for interval level variables, and cell counts and percentages for ordinal and nominal variables.

Inferential statistics were analyzed using T-tests and Pearson product moment correlation coefficients. To test that the population mean of locus of control and parenting behavior scores were the same for both groups, the independent t-test was used. The independent t-test is used to test the equality of two means for interval and ratio level variables. This procedure tested if the experimental and comparison groups were similar in their ANSIE and PBA scores prior to the educational intervention. It was also used to test if there were differences between groups on key demographic variables. A second analysis used in this study was the paired sample t-test. This procedure tests to determine

if the mean difference on matched populations is 0. It was used to test the mean difference for each subject on ANSIE and PBA scores in both the experimental and comparison groups on a before and after basis. This analysis tests the null hypothesis in terms of differences in scores as a result of treatment status, or receiving an educational intervention.

Pearson product moment correlation was used to examine the relationship between ANSIE scores and PBA scores. Pearson product moment correlation is the statistical analysis appropriate for testing the linear relationship between interval level variables. Coefficients range from -1 to +1 to describe either a positive or negative association. This analysis tested the hypothesis which examined the strength of the relationship between locus of control and parenting behaviors.

#### **Ethical Considerations**

An application was submitted to the University Committee on Research Involving Human Subjects (UCRIHS), the Institutional Review Board of Michigan State University, to conduct this research. Approval to conduct the study was granted by UCRIHS prior to the beginning of data collection.

To ensure that the rights and welfare of the participants are protected throughout this study, several ethical considerations are taken into account. First of all, participants in the Building Strong Families experimental group are assured that they will receive the Building Strong Families program, regardless of their participation in the research study. Furthermore, they could elect to discontinue the study at any time for any reason, and still receive the BSF program. A consent form is distributed to each participant, to ensure that she completely understood her rights regarding participation in the BSF program and the intent of the research. Appendix A is a copy of the consent form used with the experimental group. Volunteers of the comparison group from the WIC program were also provided a consent form which explained the purpose of the research and their rights. They were assured that they would receive their WIC benefits even if they chose not to participate in the research and they could discontinue with the study at any time. In addition, the consent form describes their compensation for participation. A copy of the WIC consent form is attached as Appendix C.

Privacy of the subjects is protected through confidentiality. Each participant in the experimental group is assigned an identification number by the BSF instructor at enrollment. Prior to submitting completed instruments to the researcher, all identifying information such as name and address is removed. Clients are identified solely by family number. Each BSF instructor maintains a master list linking participant names and case numbers in the event that it is necessary to correct inaccurate or missing information. The comparison group is assigned numbers as well, in chronological order upon recruitment. Like the experimental group, all identifying information is removed from their paperwork, and participants were referred to only by number. A master list that recorded each participant's name with her assigned number was kept in a locked file and referred to only for follow up on missing information. Privacy was further protected in that results were only reported for the aggregate, with no reference to individual subjects or responses. Additionally, both the experimental and comparison groups were advised of the intent of this research. Finally, the participants, the BSF staff and the WIC staff were advised that results of the study would be available to them upon request.

#### **CHAPTER IV**

#### RESULTS

This chapter contains the results of the data analysis. The information is organized into three sections. The first section utilizes descriptive statistics to report aggregate demographic characteristics of both the experimental and control group samples. The second section focuses on the use of inferential statistics to draw inferences about the population based upon probability and statistical significance. The final section presents a brief conclusion of the results.

#### **Descriptive Statistics**

#### Demographic data

A total of 100 women completed the study by providing data at pre and post assessment. Mothers were recruited for the experimental group through an urban county extension service that provides a home visitation, parent education program for families with young children. Comparison group mothers were recruited from WIC clinics servicing the same geographic area and target population. Demographic data was obtained using the Family Record Form, which collected information about mother's age, family composition, education, ethnicity, monthly income, number and ages of children, and household members. A summary of the demographic characteristics is presented in Tables 1 and 2. Table 1 presents cell counts and percentages of the nominal level variables. Table 2 presents means and standard deviations for the ordinal and interval variables.

# TABLE 1

	EXPERIMENTAL		COMPARISON		
	GROUP		GROUP		
	n 11-	•⁄•	n 11-	-30 %	
Ethnicity					
African American	40	80	49	98	
Caucasian	5	10	1	2	
Hispanic	1	2	i i	0	
Other	1	2	ů ů	Ő	
Education	•	_	Ŭ	Ŭ	
High School Graduate	23	46	24	48	
Non High School Grad	24	48	26	52	
Family Structure					
Single Parent	28	56	35	70	
Two Parent	15	30	10	20	
Extended Family	6	12	5	10	
Foster Family	0	0	0	0	
Other	0	0	0	0	
Monthly Income					
<b>\$800 or less</b>	26	52	24	48	
\$800-\$1000	12	24	17	34	
\$1000-\$1200	3	6	3	6	
\$1200 or more	2	4	2	4	
Age					
18-23	19	38	17	34	
24-29	15	30	17	34	
30-35	9	18	7	14	
36+	4	8	7	14	
Number of Children					
0	2	4	1	2	
1	25	50	13	26	
2	12	24	12	24	
3	8	16	11	22	
4	2	4	10	20	
5	0	0	2	4	
6+	0	0	1	2	
<b>First Time Parent</b>					
Yes	27	54	14	28	
No	22	44	36	72	

# Cell Counts and Percentages for Experimental and Comparison Group Demographics

## TABLE 2

VARIABLE	MEAN		RANGE		STD. DEV.	
	Exp.	Com.	Exp.	Com.	Exp.	Com.
Education	11.26	11.40	8-14	8-14	1.34	1.35
Age	26.02	27.09	18-47	18-51	6.58	7.40
Number of Children	1.65	2.50	0-4	0-7	.95	1.38

Means and Standard Deviations for Experimental and Comparison Group Demographics

Exp. = Experimental Group Com. = Comparison Group

The total number of mothers who completed the study in the experimental group was 50. The age of the mothers ranged from 18-47 years, with a mean of 26 years. Thirty eight percent (19) were between the ages of 18 and 23, 30% (15) were 24-29, 18% (9)were 30-35, and 8% (4) were 36 years of age or older. Or, one third of the women were under 23 and two thirds were under the age of 30. Eighty percent of the women were African American (40), 10% (5) Caucasian, 2% (1) Hispanic and 2% (1) Multi-cultural. Data revealed that 56 % (28) of the sample were single mothers, 30 % (15) were from two parent families, and 12 % (6) lived in extended family arrangements. Over half, or 52 %, (26) were not high school graduates and 12% (6) had participated in educational programs beyond their high school diplomas. Seventy six percent (38), or three quarters, of the women earned \$1000 or less per month. Within the current sample, 66 % (33) were also enrolled in Women Infants and Children (WIC), 54 % (27) received financial assistance and 58% (29) received food stamps. The mean number of children per family was 1.6 (SD = .95), with a range of no children (pregnant) to 4 children. Over half (27) of the sample was first time parents. Five women in the experimental group dropped out of the Building Strong Families program prior to completing the study. Their information is not included in the summary of demographic characteristics.

Fifty women completed the study in the comparison group. The age of the mothers ranged from 18-51 years, with a mean of 27 years. Thirty four percent (17) were between the ages of 18 and 23, 34% (17) were 24-29, 14% (7) were 30-35, and 14% (7) were 36 years of age or older. Again, approximately one third of the mothers were under 23 and two thirds were under 30. Ninety eight percent (49) of the women were African American and 2 % (1) Multi-cultural. Data revealed that 70 % (35) of the sample were

single mothers, 20% (10) were from two parent families, and 10 % (5) lived in extended family arrangements. Nearly half, or 48 %, (24) were not high school graduates and 12% (6) had participated in educational programs beyond their high school diplomas. Eighty two percent of the women earned \$1000 or less per month. All of the mothers were enrolled in Women Infants and Children (WIC), 34 % (17) received financial assistance, 34% (17) received food stamps and none reported participating in a parent education program. The mean number of children per family was 2.5 (*SD* = 1.38), with a range of no children (pregnant) to 7 children. Approximately one quarter (14) of the sample was first time parents. Eight women in the comparison group declined to continue in the study following the initial assessment. A series of independent t-tests revealed that when equal variances are assumed, there were no significant differences between those who completed the study and those who did not.

Table 1 shows that the distribution on the variables education, monthly income, and maternal age were nearly identical for the experimental and comparison groups. For both groups, approximately half were high school graduates, two thirds were under the age of 30, and three quarters earned \$1000 per month or less. There were some observed differences between groups, however. Just over half of the experimental group were single parents, compared to over two thirds of the comparison group. Additionally, the entire comparison sample identified themselves as a member of a minority group, compared to only 80% of the experimental group. Also, half of the experimental group had only one child, or were first time parents, compared with one quarter of the comparison group. In addition, 20% (10) of the comparison group had 4 or more
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children in contrast to only 2 mothers, or 4%, with 4 or more children in the experimental group.

Table 2 further describes the contrasts and similarities between groups on demographic variables. Both groups reported a mean educational level of just above eleventh grade (M = 11.26, SD = 1.34 experimental group; M = 11.40, SD = 1.35comparison group). The mean age of the experimental group was 26.02 years (SD = 6.58), compared to 27.09 (SD = 7.40) for the comparison group, with range of 18-47 and 18-51 respectively.

In general, the distributions show that the experimental group and comparison group were similar on most of the demographic background characteristics. However, mothers in the comparison group were more likely to represent a minority ethnic group and have more children than mothers in the experimental group. Also, mothers in the experimental group were more likely to be first time parents than mothers in the comparison group.

## Pre-intervention analyses

A series of independent t-tests were conducted on each variable to determine if there were any statistically significant differences between mothers in the comparison group and mothers in the experimental group on any of the demographic characteristics. Table 3 presents the results, confirming that there were significant differences in the demographic data between the experimental and control groups in number of children (t = 3.679, p < .000), first time parent status (t = -2.736, p < .000) and ethnicity (t = 2.419, p < .018). Because of the small cell counts in some of the ethnic categories, the variable

## **TABLE 3**

VARIABLE	N	T-TEST	P VALUE
Family Composition	99	-1.090	.279
Ethnicity	97	2.419	.018*
Monthly Income	89	.420	.676
Education	97	.458	.648
Enrolled in TANF	99	897	.372
Maternal Age	95	.803	.424
Number of Children	99	3.679	.000**
First Time Parent	98	-2.736	.000**

# Testing Differences Between Group Means at Pretest on Key Demographic Variables Using Independent T-tests

statistically significant at the .05 level
statistically significant at the .000 level

was recoded into two categories, minority and non-minority. There were no significant differences in the other key demographic variables (family composition, t = -1.090, p < .279; monthly income, t = .420, p < .676; education, t = 458; p < .648; enrolled in TANF, t = -.897; p < .372; maternal age, t = .803, p < .424). The pre-intervention analysis of demographic variables suggests that the experimental and control group are reasonably equivalent in terms of identifying characteristics, prior to the administration of treatment.

#### **Inferential Statistics**

#### Pre-intervention analysis of group means

Independent t-tests were run to determine if the study's experimental and comparison groups were similar in terms of the locus of control and parenting behaviors variables prior to treatment. Tables 4 and 5 present the results of the independent t-test analysis. Table 4 shows that the mean of the experimental group on the locus of control (ANSIE) scores was 15.04 (SD = 5.77), and the mean of the comparison group was 13.64 (SD = 5.60). The experimental group scored higher, but it was not statistically significant (t = -1.23, p< .221). These slight differences in group mean scores reflected that the experimental group scored more towards externality. Because the differences were not statistically significant, this finding indicates that the experimental group was similar to the comparison group in terms of locus of control orientation prior to receiving the Building Strong Families intervention.

Table 5 shows that the mean of the parenting behavior score (PBA) for the experimental group was 125.86 (SD = 21.46). The mean score for the comparison group was 132.50 (SD = 24.70). These scores also reflected slight differences in group means,

**TABLE 4** 

## Testing Differences Between Group Means of ANSIE scores at Pretest for Experimental and Comparison Groups Using Independent T-tests

Group	N	Pretest Mean	SD	t-test for differences between group means
Experimental Group	50	15.04	5.77	t = -1.23
Comparison Group	50	13.64	5.60	p = .221

## **TABLE 5**

## Testing Differences Between Group Means of PBA scores at Pretest for Experimental and Comparison Groups Using Independent T-tests

		Pretest		t test for differences between group means
Group	N	Mean	SD	
Experimental Group	50	125.86	21.46	t = 1.44
Comparison Group	50	132.50	24.70	p = .155

statistically significant at the .05 level
statistically significant at the .000 level

with the comparison group more likely to identify self with positive parenting behaviors, yet the differences were not statistically significant (t = 1.44, p<.155). Therefore, prior to treatment, the experimental and comparison groups were also similar in terms of the parenting behavior variable. Data regarding pretest scores on the locus of control and parenting behavior variables from Tables 4 and 5, in combination with Tables 1 and 2, indicate that the experimental and comparison groups were equivalent prior to the administration of treatment conditions.

#### H1: Post-intervention differences in locus of control orientation between group means

The primary purpose of this study is to determine the extent to which a home visitation, parent education program increases internal locus of control orientation among mothers. The level of measurement of the locus of control construct is interval and the aim of the hypothesis is to analyze the differences between two group means. Therefore, the t-test is the statistical analysis that is selected for this study.

It was hypothesized that mothers who complete the Building Strong Families parent education program will show an increase in internal locus of control orientation when compared to the comparison group. This hypothesis is based on the premise that the BSF materials include a process oriented, personal development component for mothers which should influence the degree to which they perceive reinforcement as contingent upon their own behavior and enhance their sense of personal control. A core element of the program is to help mothers identify personal strengths, and set and achieve small, realistic goals. Once attained, the successful experience should shape their perceptions regarding the ability to influence their own lives. Moreover, the hypothesis

## **TABLE 6**

Pre- and Posttest Results for Locus of Control Scores for Experimental and Comparison Groups Using Paired Sample T-tests

		Pretest		Posttest		Difference		t-value differences	
Group	N	Mean	SD	Mean	SD	Mean	SD	group means	
Experimental Group	50	15.04	5.77	12.60	4.99	2.44	3.03	t = 5.69 <b>**</b>	
Comparison Group	50	13.64	5.60	13.82	5.31	18	2.35	t =541	

## TABLE 7

# Pre- and Posttest Results for Parenting Behavior Scores for Experimental and Comparison Groups Using Paired Sample T-tests

Group		Pretest		Posttest		Differences		t-value differences between	
Group	N	Mean	SD	Mean	SD	Mean	SD	group means	
Experimental Group	50	125. <b>8</b> 6	21.46	139.92	15.15	-14.06	15.61	t = -6.37**	
Comparison Group	50	132.5	24.71	133.22	20.58	72	24.87	t =21	

\* statistically significant at the .05 level

\*\* statistically significant at the .000 level

also draws upon the studies that link a home visitation, parent education model of service delivery to increased self efficacy in program recipients (Black, 1994; Mitchel & Donnelly, 1993). Also, research has confirmed that parent education in and of itself can lead to participants experiencing changes in perceptions of personal power and control (First & Way, 1995). Furthermore, Swick (1986) postulates that meaningful relationships within the family and the larger community context can facilitate the development of a productive parental control orientation and BSF aims to establish those meaningful community relationships by utilizing the home visitation delivery model. Therefore, evidence exists which suggests that feelings of power and control can be shaped through interactions with others. One would expect that mothers participating in a home visitation parent education program that emphasizes the client-staff relationship, and includes a personal development component, should experience shifts in their locus of control orientation toward internality.

Paired t-tests were used to compare the experimental sample's pre- and posttest scores on the locus of control scales. Table 6 presents the results of the analysis. As expected, the ANSIE scores decreased for the experimental group from pre to post assessment, reflecting a change toward more internal locus of control orientation by the end of the program. The mean pretest score was 15.04 (SD = 5.77) and the mean posttest score was 12.60 (SD = 4.99). There were no changes in the ANSIE scores for the comparison group, with a mean of 13.64 (SD = 5.60) on the pretest and 13.82 (SD = 5.31) on the posttest. Table 6 shows that paired differences in group means for the experimental group were statistically significant (M = 2.44, t = 5.69, p< .000). The comparison group showed no significant differences in group mean scores at post

assessment (M = -.18, t = -.541, p<.591). As stated previously, there were no statistically significant differences between the experimental and comparison group scores on the ANSIE at the pretest. Because the groups were similar at the initial assessment in terms of ANSIE scores and demographic characteristics, one may attribute differences between group scores at the posttest to the intervention with a reasonable degree of confidence.

## H2: Post-intervention differences in parenting behaviors between group means

It was hypothesized that mothers who complete the Building Strong Families home visitation parent education program will be more likely to identify self with positive parenting behaviors at the end of the program when compared to a comparison group. That is, parental perceptions of the consistency and frequency of positive parenting behaviors will increase for those who receive BSF, but not for those in the comparison group. This hypothesis is based upon the literature, which has found parent education interventions to be effective in changing the attitudes and behaviors of parents who participate (Brems, Baldwin & Baxter, 1993; Gross, Gogg & Tucker, 1995; Stevens, 1988). For example, outcomes include, enhanced knowledge of child development (Stevens, 1988), improved discipline practices (Gross, Fogg & Tucker, 1995), and positive child rearing skills (Brems, Baldwin, & Baxter, 1993).

Parenting behavior scores were tested for group differences using paired sample ttests. The results of the analysis are presented in Table 7. The PBA scores increased for the experimental group from pre to post assessment, reflecting a change toward more positive parenting behaviors by the end of the program. Mean scores at pretest were

125.86 (SD = 21.46) and 139.92 (SD = 15.15) at posttest. There was an extremely small change in the mean PBA scores for the comparison group, from 132.12 (SD = 24.82) at pretest to 132.83 (SD = 20.67) at posttest. Table 7 illustrates the differences in group means between the experimental (M = -14.06, t = -6.37, p< .000) and comparison (M = -.72 mean; t = -.21; p< .839) group following the treatment conditions at post assessment. There were no statistically significant differences between the experimental and comparison group scores on the PBA at the pretest. This evidence suggests that the Building Strong Families program is effective in promoting mother's perceptions of positive parenting behaviors in limited resource populations and further supports previous BSF evaluations which document statistically significant changes in perceptions of parenting behavior scores as a result of the program.

### Relationship between locus of control and parenting behaviors

Pearson product moment correlations were computed for the locus of control and parenting behavior variables to determine the strength of the linear association between the two. It was hypothesized that there was a negative correlation between locus of control scores and parenting behavior scores. That is, it was expected that as locus of control scores decreased, reflecting a more internal orientation, parenting scores would increase, reflecting more positive, responsive parenting. This hypothesis was grounded in the scientific literature which suggests there is a significant relationship between a parent's belief that she can influence her own life and responsive, competent, and nurturing parenting styles (Belsky, 1984; Lefcourt, 1986; Stevens 1984).

# TABLE 8

		PrePBA	PreANSIE
PrePBA	Correlation Coefficient	1.0	.038
	N	100	100
PreANSIE	Correlation Coefficient	.038	1.0
	N	100	100

Correlation Between Locus of Control and Parenting Behaviors at Pretest

# TABLE 9

Correlation Between Locus of Control and Parenting Behaviors at Posttest

		PostPBA	PostANSIE
PostPBA	Correlation Coefficient	1.0	168*
	N	100	100
PostANSIE	Correlation Coefficient	168*	1.0
	N	100	100

\* statistically significant at the .05 level

Since the hypothesis predicted a negative correlation between the two variables, it was possible to utilize a one-tailed correlation analysis. Contrary to expectations, the data yielded inconsistent results. No significant correlations were found between PreANSIE scores and PrePBA scores (r = .04). However, a significant negative correlation was found between PostANSIE scores and PostPBA scores (r = .168). This figure is a negative value correlation and suggests an inverse relationship, or that as ANSIE scores decrease, PBA scores increase. In other words, mothers with internal locus of control orientations are more likely to identify self with positive parenting behaviors. Tables 8 and 9 provide a summary of the Pearson product moment correlation coefficients for the variables locus of control and parenting behaviors.

### Intra-group analysis of locus of control

The literature reports that there are many variables which influence the development of locus of control orientation. Examples of variables that have been shown to be associated with locus of control in the literature include socioeconomic status, ethnicity, and educational level. In general, the construct is influenced by multiple factors and those individuals who have more power to achieve positive outcomes, whether it be a result of group membership or social position, are more likely to be internally motivated (Lefcourt, 1976). For these reasons, it was expected that there would be some intragroup differences in relation to the locus of control construct on key demographic variables. The variables that were of particular interest in this study were monthly income, education level, number of children and first time parent status.

# **TABLE 10**

Variable	Pretest				Posttest			
	Mean	SD	t	р	Mean	SD	t	р
Family Comp.								
Single Parent	15.27	5.63	1.473	.144	14.00	4.97	1.448	.151
Two Parent	13.24	6.30			12.24	5.55		
Ethnicity	1			1				
Minority	13.97	5.48	2.376	.019*	20.00	6.63	1.625	.108
Non-minority	12.97	5.09			16.80	5.72		
Monthly Income								
\$1001 and over	10.50	5.04	-2.077	.041*	9.40	4.50	-2.397	.019*
\$1000 and less	14.54	5.88			13.47	5.12		
Education			1	1				
H.S. Grad	12.90	5.13	-2.550	.012*	11.82	4.94	-2.773	.007**
Non H.S. Grad	15.80	6.09	1		14.66	5.14	1	
Enrolled AFDC								
Yes	14.75	5.82	639	.524	13.48	4.67	495	.622
No	14.00	5.67			13.76	5.44		
Age					1			
<= 23 years	12.58	4.42	2.182	.032*	12.00	4.35	1.649	.103
>=24 years	15.14	6.10			13.76	5.44		
Numb. Children								
3 or more	13.30	5.85	-1.225	.223	13.06	5.48	142	.887
2 or less	14.72	5.54			13.22	5.04		
1 <sup>st</sup> Time Parent			1					
Yes	14.95	5.81	819	.415	13.27	4.83	071	.944
No	14.00	5.58			13.19	5.41		
Age of Child					ļ			
<18 months	14.28	5.67	088	.930	13.02	4.72	.329	.743
>= 19 months	14.18	5.79			13.37	5.80		

# Independent T-tests for Intra-group Differences among Locus of Control Scores and Demographic Variables

statistically significant at the .05 level
statistically significant at the .01 level

\*\*\* statistically significant at the .001 level

Independent t-tests for intra-group differences demonstrated some significant differences, yet fewer than expected. Table 10 shows the results of the analysis for locus of control scores. Within the entire sample, there were significant differences between those who received \$1000 a month, and those who reported less than that in terms of locus of control orientation. In general, more money was associated with internality. The mean ANSIE scores for those earning more than \$1000 per month was 10.5 (SD = 5.04) at pretest and 9.4 (SD = 4.50) at posttest. For those earning less than \$1000 per month, the mean ANSIE scores was 14.54 (SD = 5.88) and the posttest was 13.47(SD = 5.12). The differences between income groups were statistically significant at the p < .05 level at pretest (t = - 2.077, p = .041) and posttest (t = - 2.397, p = .019). Significant differences were also detected within the education level variable in relation to locus of control. Those mothers who graduated from high school were more internal in their locus of control orientations than those who did not. The mean ANSIE pretest score for high school graduates was 12.9 (SD = 5.13) compared to 15.8 (SD = 6.09) for non-high school graduates. This difference was statistically significant at the p < .05 level (t = -2.550, p = .012). At posttest, the scores were 11.82 (SD = 4.94) for high school graduates and 14.66 (SD = 5.14) for non graduates. These differences were statistically significant at the p<.01 level (t = -2.773, p = .007). Together these findings suggest that those who graduate from high school are more internally oriented than those who do not. Also, differences between groups were detected within the financial assistance variable, but only for those enrolled in the experimental group. The mean score at pretest for those who reported receiving financial assistance was 16.9 compared to 13.4 of those mothers who reported not receiving assistance. These differences were reflected at the posttest, as

well, with the mean scores being 14.6 and 10.8 for those who receive assistance and those who do not. The results were statistically significant at the p < .05 level. These findings suggest that within the experimental group mothers who admit to receiving financial assistance such as ADC or TANF are more externally oriented than those who do not. Finally, there were intra-group differences on the age variable, although the results were surprising. Contrary to expectations, mothers older than 24 years scored more towards the external end than their counterparts in the group of mothers 23 or younger. Mothers 23 and younger had mean ANSIE scores of 12.58 (SD= 4.42) at pretest and 12.0 (SD = 4.35) at posttest. Mothers 24 and over, however, scored 15.14 (SD = 6.10) at pretest and 13.76 (SD = 5.44) at posttest. These findings suggest that mothers under the age of 23 were more internally oriented than mothers over the age of 24. There were no significant differences within groups for the remainder of the variables at pretest (family composition, t = 1.473, p = .144; enrolled AFDC, t = -.639, p = .524; number of children, t = -1.225, p = .223; first time parent status, t = -.819, p = .415; and age of child, t = -.819, p = .930) and at posttest (family composition, t = 1.448, p = .151; ethnicity, t = 1.625, p = .108; enrolled AFDC, t = -.495, p = .622; age, t = 1.649, p = .103; number of children, t = -.142, p = .887; first time parent status, t = -.819, p = .415; and age of child, t = .329, p = .743). By posttest, most of the intra-group differences had disappeared, leaving statistically significant differences for only two variables, monthly income and education level.

#### Intra-group analysis parenting behaviors

Empirical evidence suggests that individuals parent differently. Many factors have been linked to these differences and Belsky's (1984) model on the determinants of parenting presents the domains which influence parental functioning and behaviors. He posits that parenting is multiply determined from forces within the parent, forces within the child, and forces within the social network in which the parent-child relationship is embedded. It was expected that as a result of those multiple influences, there would be significant differences within the groups on key demographic variables in terms of perceptions of parenting behaviors.

Independent t-tests were run to determine if there were within group differences among the sample on the parenting behavior variable. Contrary to expectations, results indicated that there were very few differences. Table 11 shows the findings. At pretest for both groups, older women reported more positive parenting behaviors. The mean PBA score at pretest was 133.80 (SD = 15.21) for women 24 and older, and 122.69 (SD = 30.75) for those under the age of 23. These findings were statistically significant at the p<.05 level (t = 2.347, p = .021). At posttest, however, there were no significant differences between age of participant and parenting behaviors. Also, first time mothers were less likely to identify themselves with positive parenting than women with more than one child. PBA scores were a mean of 119.39 (SD = 29.84) at pretest for first time mothers and 135.31 (SD = 15.16) for those who were not. These differences were statistically significant at the p< .001 level (t = 3.548, p = .001). The differences were not significant at posttest, however, with mean scores of 134.56 (SD = 15.97) for first time parents and 137.56 (SD = 19.94) for others (t = .797, p = .427). Finally, consistent

## **TABLE 11**

Variable	Pretest				Posttest			
	Mean	SD	t	Р	Mean	SD	t	р
Family Comp.								
Single Parent	129.46	23.13	.400	.690	134.87	20.95	870	.387
Two Parent	127.24	24.32			127.24	24.33		
Ethnicity						1		
Minority	130.42	23.07	-1.367	.175	136.54	18.57	656	.514
Non-minority	116.00	21.07			131.00	14.00		
Monthly Income								
\$1001 and over	134.40	18.90	-2.077	.041*	136.70	13.69	.172	.864
\$1000 and less	127.50	24.58			135.61	19.41		
Education								
H.S. Grad	125.40	28.36	-1.537	.128	136.44	14.84	.026	.979
Non H.S. Grad	132.66	16.10			136.34	21.80		
Enrolled AFDC								
Yes	129.40	20.48	183	.855	137.38	15.19	452	.652
No	128.53	25.02			135.68	20.19		
Age								
23 and younger	122.69	30.75	2.347	.021*	136.66	13.95	019	.985
24 and older	133.80	15.21			136.60	20.74		
Numb. Children								
3 or more	137.11	15.18	2.528	.013*	139.47	10.66	1.227	.223
2 or less	125.54	25.42			134.74	21.08		
1 <sup>st</sup> Time Parent								
Yes	119.39	29.84	3.548	.001**	134.56	15.97	.797	.427
No	135.31	15.16			137.56	19.94		
Age of Child	Į							
<18 months	123.53	26.47	3.513	.001**	135.47	15.03	.329	.743
>= 19 months	139.03	9.56			137.63	22.19		

# Independent T-tests for Intra-group Differences among Parenting Behavior Scores and Demographic Variables

\* statistically significant at the .05 level
\*\* statistically significant at the .01 level
\*\*\* statistically significant at the .001 level

with the previous findings, women with more children reported more positive parenting behaviors when compared to women with fewer children. Specifically, women with 3 or more children recorded mean scores of 137.11 (SD = 15.18) at pretest compared to 125.54 (SD = 25.42) for women with 2 or less children. These findings were statistically significant at the p<.05 level (t = 2.528, p = .013). While slight differences appeared in scores at posttest, the mean score for the experimental group was 139.47 (SD = 10.66) and 134.7 (SD = 21.08) for the comparison group. Mothers with more children were more likely to identify self with positive parenting practices, although the differences were not statistically significant (t = 1.227, p = .223). There were no significant differences for the remainder of the variables at pretest (family composition, t = .400, p = .690; ethnicity, t = -1.367, p = .175; education, t = -1.537, p = .128; enrolled in AFDC, t = -.183, p = .855). At posttest, there were no significant differences within any of the variables regarding parenting behavior scores. (family composition, t = -.870, p = .387; ethnicity, t = -.656, p = .514; monthly income, t = .172, p = .864; education, t = .026; p = .979; enrolled in AFDC, t = -.452, p = .652; age, t = -.019, p = .985; number of children, t = 1.227, p = .223; first time parent, t = .797, p = .427; age of child, t = .329, p = .743.)

#### Conclusion

Overall, the findings from this research support the existing body of knowledge that describes an association between internal locus of control orientations and positive parenting behaviors. In general, mothers in this study reported listening to their children, remaining calm during temper tantrums, hugging and kissing their children daily, playing with their children and other parenting behaviors which imply responsive, sensitive, and nurturing parenting. As the literature suggests and this research reinforces, these warm, accepting and guiding parenting characteristics are consistently linked with internal orientations (Belsky, 1984; Mondell & Tylers 1981). In other words, women with internal orientations are more likely to interact with their children in developmentally appropriate, empathic, and nurturing ways.

Results also indicate that mothers in the study are more likely to identify self with positive parenting behaviors at the end of the program when compared to a comparison group. This measure of self reported perceptions is intended to reflect the frequency and consistency of developmentally appropriate and responsive parenting behaviors. Mothers who completed the BSF program were likely to experience changes in their perceptions of their own parenting behaviors to reflect more positive parenting practices. Mothers in the comparison group experienced no changes. This evidence suggests that BSF is an effective way to promote competent parenting among limited resource mothers and confirms previous research that has documented the success of the BSF intervention in influencing parenting behaviors.

In addition, there was some evidence to support that both locus of control and parenting behaviors are influenced by forces from within the parent, within the child and contextual factors. Locus of control orientation appeared to vary within the groups according to educational attainment, monthly income, and age of mother. Moreover, parenting behaviors were found to be affected by mothers' age, first time parent status and number of children. Any statistically significant differences detected in parenting behaviors at pretest, however, were no longer present at posttest, suggesting the BSF

intervention may buffer factors which present as a potential risk to positive parenting practices.

Finally, the other significant finding of this study is, when compared to a comparison group receiving no parenting education treatment, the experimental group experienced an increase in their internality from the beginning to the end of the BSF program. In general, those women who were enrolled in and completed the BSF program were likely to experience shifts in their locus of control orientations in the internal direction. Women in the comparison group, however, experienced no changes in orientation. The literature has consistently documented that the correlation between internality and competent parenting is consequential. As Belsky (1984) hypothesizes, while parenting is multiply determined by characteristics of the child, contextual sources of stress and support, and parental psychological resources, the most important element of the system is parental psychological resources. The likelihood that parents are capable of providing optimal care to children is the least when parental psychological resources is the weakest system. While the significance of internal locus of control orientations has long been established in the theoretical and empirical literature, this study provides evidence to support that individual orientations are malleable within the context of a parent education program. Given what is known about the importance of internality in relation to parenting, this is a significant finding. Furthermore, if limited resource mothers are learning new ways to think about themselves and their personal sense of power and control as this study suggests, then the potential for these effects to spread beyond parenting and throughout multiple areas of maternal life is tremendous.

#### **CHAPTER V**

## DISCUSSION, SUMMARY, CONCLUSIONS, IMPLICATIONS AND SUGGESTIONS FOR FUTURE RESEARCH

## **Discussion of Results**

The results of the study will be summarized according to the three research hypotheses and statistical analyses.

<u>Hypothesis 1:</u> Mothers who complete the home visitation, parent education program will show an increase in internal locus of control orientation when compared to the comparison group.

The results of the data analysis support this hypothesis. Paired t-tests reveal that mothers who participate in the Building Strong Families home visitation, parent education program experience statistically significant increases in their locus of control orientations from the beginning to the end of the program. Mothers from the comparison group receiving no parenting education treatment, however, experience no changes in locus of control orientation from pre to post assessment. In other words, mothers are more likely to believe that they can determine their own fate within limits after completing the program, when compared to mothers not participating in the program. It is important to note that there were no significant differences between groups in locus of control scores at the pretest. Therefore, it is possible to attribute differences in group mean scores at posttest to the Building Strong Families program with a reasonable degree of certainty.

There are several possible explanations to account for this increase in internality. First of all, the Building Strong Families program includes the "Smart Living" unit which was designed to facilitate the self care and personal development of the mother. Its purpose is to assist mothers in identifying their own personal strengths, recognizing sources of frustration, and setting and achieving realistic goals. While the unit's concepts are introduced early in the program, they are a continuous theme throughout. Parenting instructors are trained to support mothers to make life changes and actualize goals they have set for themselves during the course of the program. Through this process, program participants may realize they have the ability to shape and alter their life course, within reasonable limits. This relationship between internality and feelings of personal empowerment has been substantiated in the literature (Morris, 1992). In general, individuals who have more opportunities to achieve positive outcomes tend to be more internally oriented. Additionally, experts agree that locus of control orientations develop and reshape throughout life based upon individual experiences (Lefcourt, 1976). Thus, it is plausible to conclude that the Smart Living unit of the BSF curriculum has an impact on feelings of personal power.

Another potential explanation for the increase in internal locus of control orientations in mothers who participate in the program is the process of the intervention itself. Investigators document that effective family support programs integrate elements of information and support (Gomby, Culross & Behrman, 1999) and that home visitation programs provide a valuable resource in enhancing social support networks (Baker et al., 1999). Research on home visitation programs suggests that the key to helping families is in the supportive relationship between the home visitor and the program participant

(Black et al., 1994; Duggan et al., 1999; Olds et al., 1999). Moreover, research around the concept of self efficacy, a construct often used interchangeably with locus of control in the literature, has demonstrated strong linkages to the idea of perceptions of self being influenced by others. Bandura (1982) identified four sources of beliefs regarding self efficacy. Two of them, vicarious learning and verbal persuasion, originate in interactions with others and infer that others clearly influence one's perceptions of self efficacy. It makes sense that because the BSF staff are working one-on-one with mothers in a mentoring role, supportive and trusting relationships develop. Through these relationships, parenting instructors encourage mothers to identify their strengths and make changes in their lives, ultimately influencing the mothers' perceptions of themselves to realize they have power within limits to influence and regulate their own lives. To further support this notion, researchers suggest that it is necessary to have useful relationships within the larger community context in order to develop a healthy locus of control orientation (Swick, 1984). The BSF program provides the opportunity for mothers to establish that positive relationship within the community, which may be helpful in encouraging mothers to realize their potential to influence their own lives.

Finally, previous research has documented that parenting education in general has elicited changes in women's life views regarding empowerment and individual sense of control (First & Way, 1995). The authors speculate that the parent education process motivated women to question their basic values and beliefs regarding childrearing. This process appeared to stimulate participants to think critically about themselves and their life situations. As a result, the women evidenced a major shift in their orientations from reactive to proactive, unempowered to empowered. This reformation in thinking and

behavior is labeled transformative learning (Apps, 1991). Transformative learning implies that as a result of the parenting program, women are learning new ways to be responsive, loving, and nurturing parents in addition to new ideas regarding their personal power and ability to control their own lives. (First & Way, 1995). The critical thinking and reflection skills associated with transformative learning are embedded throughout the BSF curriculum and program process, and serve as a possible explanation for the changes program mothers experience in locus of control orientation.

What this discussion illustrates is that numerous questions remain about the critical elements that predict the effectiveness of the BSF program, in spite of the fact that significant results were found. As previously stated, there are many plausible explanations for the program's success. Because this study only sought to determine if mothers experienced changes toward internality following the program, much still needs to be learned about why and how significant effects were achieved. Namely, it is still not known if the effectiveness is attributed to the curriculum of the BSF program that includes the parental self care component, to the home visitation model that enhances social support networks and encourages personal growth, to parenting education in general, which has been known to transform the way participants' view themselves and their lives, or to the interaction among all of these issues. Future research with alternative designs would be most helpful in beginning to learn the information necessary to formulate answers to questions such as these.

Most likely, each of the components contributes to achieving significant findings. However, after observing the interaction between mothers enrolled in the program and their parenting instructor, this investigator speculates that the relationship between the

participant and staff which is cultivated in the home visitation model, is at the core of the findings. Admittedly, the curriculum provides a necessary tool that permits staff to guide mothers through the personal development process. Yet the warmth, encouragement, support and assistance that staff provide to their clients on a consistent basis, is a testimony to the self worth of many of the mothers participating in the program who may not have received that kind of support or attention in their lives from any other source. This investigator postulates that evidence to support this connection might be reflected in the fact that strong effects are seen in the experimental group following a relatively short intervention. Researchers have suggested that home visitation programs should expect a minimum of 4 to 6 months of visits, prior to program participants experiencing any degree of change (Gomby, Culross & Behrman, 1999). The reality is that the BSF intervention is on average 2 months, a much shorter duration than those recommended. Perhaps these strong effects on locus of control orientation are a consequence of the influence that the paraprofessional relationship has upon the mothers, and the staff's ability to affect participants' perceptions of self and personal power.

Regardless of the reason that facilitates change, what is clear is that mothers who participate in the Building Strong Families program are experiencing vital changes within themsleves and their attitudes about personal power after completing the program. Statistic analysis confirmed at the p<.000 level that mothers who complete the BSF program have a shift in their locus of control orientation toward internality after at the end of the program when compared to a comparison group not receiving treatment. These findings suggest that a short-term intervention can be successful in influencing perceptions of self and personal control in limited resource mothers.

<u>Hypothesis 2:</u> Mothers who complete a home visitation, parent education program will show an increase in perceptions of positive parenting behaviors when compared to the comparison group.

The results of the data analysis support this hypothesis. Paired t-tests revealed that mothers who participated in the Building Strong Families parent education program experienced statistically significant increases in their perceptions of positive parenting behaviors from the beginning to the end of the program. Mothers from the comparison group receiving no parenting education treatment, however, experienced no changes from pre to post assessment. In other words, women were more likely to identify themselves with positive parenting behaviors after completing the program than those receiving no treatment. The results were statistically significant at the p< .000 level. Furthermore, there were no statistically significant differences between the experimental and comparison groups at the pretest in terms of parenting behavior scores. Therefore, it is possible to attribute differences in group mean scores at posttest to the Building Strong Families program with a reasonable degree of certainty.

These results are consistent with the literature which has demonstrated that parent education interventions are effective in creating a host of positive changes in parents who have participated (Brems, Baldwin & Baxter, 1993; Powell, 1983). Specific outcomes for parents include positive changes in parental attitudes (Telleen, Herzog & Kilbane, 1989), enhanced knowledge of child development (Fulton, Murphy & Anderson, 1991; Stevens, 1988), and the development of positive parenting skills (Fox, Fox & Anderson, 1991) and are consistent with the concepts presented in the BSF curriculum. Moreover,

investigators have documented changes in parental discipline practices and improved parenting perceptions as a result of short term, parent education interventions (Gross, Fogg & Tucker, 1995; Stratton, 1998). In addition, the findings from this study are consistent with findings over the last four years which have demonstrated that Building Strong Families is effective in influencing parental perceptions of parenting behaviors. Previous analysis of results on the PBA has confirmed that changes are statistically significant on 30 of the 32 items (n=1600). Further, client exit evaluations and instructor assessments confirm that changes are occurring within the mother and family as indicated by the changes in PBA scores.

Overall, the findings from this research support that, in general, mothers in this study reported listening to their children, remaining calm during temper tantrums, hugging and kissing their children daily, playing with their children and other parenting behaviors which imply responsive, sensitive, and nurturing parenting. Interestingly, however, despite the high prevalence of positive perceptions regarding parenting behaviors in both groups, the majority of women admitted to using spanking as a discipline technique at least some of the time. While this information seemed to be in conflict with the positive reports of parenting behaviors, it could in fact be reflective of culturally competent parenting. Some suggest that authoritarian parenting practices are a protective function for youth who are more likely to be living in poor and dangerous communities (Baumrind, 1991) which is characteristic of the communities in which this sample resides. Brody et al., (1998) have defined a phenomena referred to as "No Nonsense Parenting", a common parenting style among African American parents. No

punishment, and high levels of affectionate behaviors. It is based upon the premise that parents try to raise their children in a manner that prepares them to function effectively in their environments. Researchers suggest this method is an adaptive parenting approach for parents living in dangerous communities, that is intended to communicate a vigilant concern for the child's welfare where disobedience could have sober consequences. These stringent parenting practices are believed to promote children's self regulatory competencies and protect them from danger by discouraging disobedience and antisocial activities (Kelly, Power & Wimbush, 1992). Since the sample was predominantly African American women living in poor, dangerous, urban communities, it is possible that this concept of "No Nonsense Parenting" needs to be explored to better understand and educate mothers on effective discipline practices for young children.

Hypothesis 3: As locus of control scores decrease, parenting behavior scores increase.

Internal locus of control has been associated with a variety of positive behaviors including responsive, stimulating parenting. Specifically, internal locus of control has been linked to parent child interaction, the reduced incidence of child abuse, and more stimulating home environments to name a few (Chandler, Wolf, Cook & Dugovics, 1980; Ellis & Milner, 1981; Stevens, 1988). In addition, internal children have been associated with internal parents, and internal parents have been associated with authoritative parenting styles, acceptance, positive verbalization, and nonrestrictive independence (Chandler et al., 1980). Researchers have also found a correlation between parent orientations and perceptions of children's behavior problems (Harris & Nathan, 1973).

Investigators suggest that parents who had external locus of control scores believed that their children's behavior problems were a result of external influences, while parents who related their children's problems to parental behavior had significantly lower external scores. The authors conclude that those parents who are more likely to believe that life and life events are determined by fate, are also more likely to believe that child rearing and parenting consequences are based upon fate or chance and act accordingly. Therefore, it was hypothesized that internal locus of control scores would be associated with positive parenting behavior scores.

Data analysis for this hypothesis yielded inconsistent results. Using pretest scores from the ANSIE and PBA, the correlation coefficient was quite small (r = .04), indicating that a linear relationship between the two variables did not exist. These findings appear to contradict findings from previous studies presented earlier which describe a correlation between internal locus of control and positive parenting behaviors (Chandler et al., 1980; Stevens, 1988).

A plausible explanation for the insignificant correlation coefficient at pretest may be a limitation of the parenting measure used in this study. Data was collected from both the experimental and comparison groups using a self report measure. While the investigator has no basis for judgement regarding the experimental group as others collected the data, it appeared as if the comparison group often over-evaluated themselves in terms of their parenting behaviors. Because there was the opportunity to observe the mothers in the clinic with their children for a one to two hour period of time as they waited for their WIC appointments, inconsistencies between their self ratings and actual behaviors were clear. Previous research has described common sources that pose a

potential threat to the validity of results and suggests that one of them is the process of testing itself. Often, the administration of a test can either sensitize subjects to a measure or a concept and influence responses, or subjects provide answers that describe behaviors which present the most positive images (Campbell & Stanley, 1963). Perhaps the notion of testing effects might be contributing to what appears to be the over-evaluation of parenting behaviors and contaminating the ability of the statistical analysis to detect any correlation between the locus of control and parenting behavior variables.

On the contrary, however, results from the data analysis on the locus of control and parenting behaviors variables at posttest demonstrate an inverse relationship between locus of control orientations and positive parenting behaviors as expected. In general, decreased locus of control scores, reflecting a shift toward internality, were associated with increased parenting behavior assessment scores, suggesting increases in positive parenting behaviors. Based upon the extensive literature base that consistently documents this association, it was not surprising to discover a statistically significant correlation. The surprising finding is that these results were not consistently documented at both pretest and posttest. While an explanation for the inconsistent results was offered, the correlation between parenting behaviors and locus of control orientation is a relationship that should be further explored in future research with additional or more sensitive measures.

However, there is an alternative explanation for the significant correlation between parenting behaviors and locus of control after the intervention. That is, perhaps the BSF intervention is successful in influencing both variables. As a result of their experience in the program, mothers become more internally oriented and improve their

parenting behaviors. In other words, the pre and post measures upon which the correlation coefficient is based may be better evaluating the effectiveness of the program in relation to two distinct measures as opposed to describing a relationship between two variables. The fact that a correlation between locus of control and parenting behaviors in general could not be documented in the earlier analysis may further support this contention.

Although evidence was presented to document a significant correlation between locus of control and parenting behaviors, a cautionary note must be extended. A significant correlation does not suggest that changes in one variable are causing changes in the other variable. Many investigators have found internal orientations and parental psychological resources to be integral components of healthy parenting (Blesky, 1984; Ellis & Milner, 1981; Stevens, 1988). However, while there is a significant association between locus of control and parenting, there is no empirical evidence in this study, and very little in the literature, to document the direction of the relationship. For example, a correlation could be explained by the presumption that as a mother's sense of internality increased, she would be more highly motivated and better able to influence her children in a positive manner. On the other hand, another explanation for a correlation might be that as an individual becomes more effective, she feels as if she has more control. Within the context of parenting, this idea might be that as a mother gains more experience applying positive parenting practices and appreciating the consequences of those behaviors, she may begin to feel a greater sense of control in her life in general. Thus, these results pose the question: Is it that mothers who practice positive parenting behaviors feel more personal power as a result of their interactions and/or skills, or that

mothers who feel more personal power are more motivated or skilled to parent in ways that are considered to be empowering or positive? Clearly, more work is needed to investigate these questions further and obtain data that is better able to address causality between locus of control and parenting behaviors, instead of just correlation.

#### Intra-group analysis

The literature suggests that both parenting and locus of control are influenced by numerous factors and been shown to be shaped and molded over time (Belsky, 1984; Lefcourt, 1976). In addition to the major research hypotheses, this research also examines both the locus of control and parenting behavior constructs in relation to several key demographic variables to determine if there are differences in the dependent variables within groups.

In general, those who have more power to achieve positive outcomes, whether it be a result of group membership or social position, are more likely to be internally motivated (Lefcourt, 1976). Because there is a substantial body of literature that describes in detail those factors which influence and affect orientation, it was expected that there would be significant differences within groups in terms of this study's key variables. While there were some intra-group differences, there were fewer than expected. At pretest, approximately half of the variables demonstrated significant differences within groups, all at the p<.05 level. Those variables were ethnicity, monthly income, education, and age. Except for age, the findings were predictable. That is, more external orientations were associated with the group considered to have less power. Minorities were more external than non-minorities, those earning less than \$1000 per month were more external than those earning more, and non-high school graduates were

more external than high school graduates. For age, mothers 24 years and older were found to be more external than those 23 and younger, which was in the opposite direction as expected due to evidence in the literature (Morganti et al., 1988). By posttest, only 2 variables, monthly income and education, found statistically significant differences.

Intra-group analysis was also conducted for parenting behavior scores and demographic variables. Because of the evidence that suggests that parenting is multiply determined (Belsky, 1984), it was expected that there would be intra-group variation within the variables regarding parenting. Contrary to expectations, however, only 5 of the variables at pretest were found to be statistically significant, and four of those are suspected to be closely related. The variables were monthly income, mother's age, number of children, first time parent status, and age of child. The four similar variables are mothers age, number of children, first time parent status and age of child. The reason these variables are thought to be related is that, most likely, younger mothers have fewer children so far, are more likely to be first time parents, and have younger children. The results of the analysis indicate that women earning less than \$1000 per month, younger mothers, those whose children are 18 months and younger, those with 2 or less children, and first time parents are less likely to report positive parenting behaviors than their counterparts. By posttest, however, there were no significant differences within any of the variables to suggest any intra-group differences.

In conclusion, intra-group analysis suggests that there is some variation in terms of locus of control and parenting behaviors among demographic variables. However, there were fewer differences than anticipated. Additionally, most of these differences dissipate by the end of the program. In general, there is very little movement on either

locus of control and parenting behavior scores within the comparison sample. Because these significant differences all but disappear by posttest, and very little change occurs within the comparison group mean scores, one may speculate that the majority of movement is occuring within the experimental population. This idea presents further evidence to support the effectiveness of the BSF intervention, and suggests that the program acts as a buffer to ameliorate those conditions which may pose a risk to an internal locus of control orientation and/or perceptions of parenting behaviors.

#### Summary

Researchers agree that parents' personal and psychological characteristics are of great significance to the parenting process and developmental outcomes of children (Belsky, 1984; Swick, 1984). In his theoretical model describing the determinants of parenting, Belsky posits that parenting is multiply determined by characteristics of the child, contextual sources of support and stress, and the psychological resources of the parent. He hypothesized that to optimize parental functioning, all three domains should be operating in the supportive mode. However, he argues that the most critical component to parent-child interaction is parents' psychological resources, and speculates that parents who are most capable of responding to children in sensitive, nurturing and empathic ways are mature, psychologically healthy adults. While several personality dimensions encompass the traits known collectively as psychological resources, one construct which is critical to consider in relation to parenting is locus of control orientations range from internal, the belief that one can determine his own fate within

limits, to external, the belief that he is controlled by forces outside himself (Lefcourt, 1976).

The purpose of this study is to examine the locus of control construct within the context of parent education and parenting behaviors. Specifically, it is designed to determine if mothers' locus of control orientations shift toward internality and perceptions of parenting behaviors improve as a result of a home visitation, parent education program. In addition, the correlation between locus of control and parenting behaviors is explored.

One hundred mothers with children three and younger, living in a large, Midwest, urban city participated in the study in 1999. Fifty of the mothers were enrolled in the experimental group through the Building Strong Families program and fifty volunteered to participate in the non-equivalent comparison group after being recruited through their participation in the Women, Infants and Children (WIC) supplemental food and nutrition education program. Data was collected on a pretest-posttest basis using the following research instruments: The Adult Nowicki-Strickland Internal-External Control Scale (ANSIE), The Parenting Behavior Assessment (PBA) and the Family Record Form (FRF). Group differences were tested using t-tests and correlations between key variables were tested through the Pearson product moment correlation. The findings around the study's hypotheses are summarized below.

It was hypothesized that mothers who complete the Building Strong Families Program, a home visitation, parent education program for families with children three years of age and younger, would show an increase in internal locus of control orientation when compared to the comparison group. Generally, findings indicated that, in fact,

participation in BSF was related to significant increases in internal locus of control orientation. Those mothers who were enrolled in and completed the BSF program were likely to experience shifts in their locus of control orientations in the internal direction following the program while women in the comparison group were not. These findings were statistically significant at the p<.000 level.

Secondly, it was hypothesized that mothers who complete the program would be more likely to identify self with positive parenting behaviors when compared to the comparison group. As expected, results indicated that participation of BSF was related to significant increases in maternal perceptions of positive parenting behaviors. Mothers who completed the program were more likely to identify themselves as engaging in more frequent and consistent positive parenting practices following the program while women in the comparison group were not. These findings were statistically significant at the p< .000 level, as well.

Third, it was also hypothesized that there was an inverse correlation between locus of control orientation and parenting behaviors. As locus of control scores decreased, it was expected that parenting behavior scores would increase. A decrease in locus of control scores reflected a more internal orientation and an increase in parenting behavior scores described more positive parenting behaviors. The results, however, were inconsistent in supporting this hypothesis. Pearson product correlations between locus of control and parenting behaviors at pretest revealed no significant correlation between the variables. The same statistical analysis performed using posttest data however, suggested that there was a statistically significant correlation. One reason for this inconsistent finding may be that participants overestimate their parenting behaviors at pretest and
scores are not an accurate representation of their actions. Over inflated scores would then pose a challenge to determine actual correlations and effects.

#### Conclusion

Generally, the findings from this research support the existing body of knowledge which describes an association between internal locus of control orientations and positive parenting behaviors. Mothers in this study reported positive parenting practices that describe responsive, sensitive, and nurturing parenting styles. As the literature suggests and this research reinforces, these warm, accepting and guiding parenting characteristics are consistently linked with internal orientations (Belsky, 1984; Mondell & Tylers 1981). That is, internal locus of control orientations are associated with developmentally appropriate, empathic, and nurturing parent-child interactions.

Moreover, the results of the study suggest that locus of control orientations can be shaped through a home visitation, parent education program. Admittedly, the home visitation literature has been inconsistent in demonstrating positive effects (Black et al., 1994). However, investigators have documented that home visitation programs provide a valuable resource in enhancing social support networks and are a promising strategy to promote healthy parenting (Baker et al., 1999; Black et al., 1994). Research around the concept of self efficacy, a construct often used interchangeably with locus of control in the literature, has demonstrated strong linkages to the idea of perceptions of self being influenced by others. Bandura (1982) identified four sources of beliefs regarding self efficacy. Two of them, vicarious learning and verbal persuasion, originate in interactions with others and infer that others clearly influence one's perceptions of self efficacy.

Finally, studies have suggested that it is necessary to have useful relationships within the larger community context in order to develop a healthy locus of control orientation (Swick, 1984). At the core of the Building Strong Families program is the expectation that staff establish strong, trusting relationships with program participants, and interact as mentors. The staff are trained to encourage and support women through a personal journey as they identify strengths, set and attain achievable goals, and strengthen parenting skills and family relationships. Based upon empirical evidence which suggests ways in which perceptions of self are shaped, Building Strong Families staff affect the beliefs mothers have about their ability to influence and regulate their own lives. Therefore, the findings of this research demonstrate with careful optimism that a home visitation, parent education program can influence limited resource, African American mothers living in an urban community towards more internal locus of control orientations and greater feelings of personal power, and perceptions of positive parenting behaviors.

The findings of this study also provide support to the operational map presented earlier in this study (pg. 29), integrating Belsky's model of The Determinants of Parenting and Rotter's Social Learning Theory, with key concepts of this research. Belsky's model describes the ways in which parenting is influenced as a result of forces within the parent, forces within the child, and forces within the social context in which the parent-child relationship is embedded. Social learning, on the other hand, describes personality and behavior, recognizing that both occur within the context of the environment and experience. Together, these frameworks provide a description regarding the influences on personality and behavior, and ways in which this is applied within the context of parenting. When the key variables of this research were integrated

into the operational map, a visual representation of previously documented and anticipated findings was created. The map implies that developmental history has been shown to influence personality, personality has been shown to influence social network, and the child, the social network, and personality have been associated with parenting. In addition, it was expected that results of this study will demonstrate influence in terms of personality, or locus of control. Figure 7 revisits the operational map and documents relationships that have been supported through this study.

While not an explicit hypothesis of this research, evidence was found that validated the conceptual model which posits that aspects of a mother's developmental history can influence personality, or locus of control orientation. Furthermore, child characteristics defined as child's age were found to be associated with parenting behaviors, although the relationship was inconsistent. Confirming findings from previous studies, personality, or locus of control, was correlated with parenting behavior, and social networks, or participation in a home visitation parent education program, was associated with changes in parenting behaviors. Finally, results demonstrated that social network via a parent education program can also influence personality, or locus of control orientation. This information provides further support for integrated conceptual model and reinforces the need for additional work to establish linkages among the key elements for program and policy support.

A limitation of this report, however, is its inability to address the long term effectiveness of the BSF intervention. Many reports indicate short term changes in parenting knowledge and/or behaviors although there appears to be little evidence of long term changes. Glanville and Tiller (1991) suggest that until long term effects can be



Figure 7: Operational map of this study and demonstrated results.

demonstrated, multiple follow ups may be necessary to promote changes in attitudes and behaviors. Future studies should incorporate a time series design that would follow participants after the intervention to determine if changes in locus of control orientation are maintained over time.

Another limitation of the findings is that while it is reasonable to attribute changes in locus of control orientations to the BSF program, it is not possible to deduct if the changes are a result of the program process, program content, or the interaction between the two. Future research might compare women enrolled in Building Strong Families with other county extension programs that utilize a paraprofessional, home visitor approach but do not use the personal development materials. Findings from this type of research could be helpful in determining if it is the process or the content that is most effective in influencing locus of control towards internally.

Finally, the results are not generalizable to all parents enrolled in a home visitation, parent education program nor all families receiving the BSF program. This study evaluated the effectiveness of one particular intervention, within a specific community. Therefore results are generalizable only to limited resource, African American women living in this particular area. Future research examining BSF's ability to influence locus of control orientation across program populations would be helpful, as well as the results of impacts on locus of control from parent education in general.

#### **Future Research**

Since the evaluation of the Building Strong Families is in its infancy, several recommendations can be made for future studies. For example, based on literature that

exists regarding the locus of control construct, further research is needed regarding the relationship between predictors of locus of control orientation and changes in the outcome measure as a result of the program. Furthermore, research exploring the relationship between perceptions of parenting behaviors and locus of control orientation would also be beneficial. Since a significant correlation between the two variables was established, further research that explores causality would be meaningful.

Another implication for future research is a longitudinal study to address the long term effectiveness of the BSF program in terms of locus of control orientation. Future studies should incorporate a time series design which would follow participants after the intervention to determine if changes in locus of control orientation are maintained over time. It would also be meaningful to follow participants over time to see if, in fact, women were able to translate more internal locus of control orientations into changes in maternal life course. Olds et al., (1999) in a 15 year follow up to a home visitation program using nurses to visit families from pregnancy through the child's second birthday, found that the experimental group experienced several long term benefits when compared to the comparison group. Those visited by nurses had fewer subsequent births, postponed subsequent children longer, fewer months on welfare and receiving food stamps, fewer arrests, and less substance abuse. While the BSF intervention is much less intense and of a shorter duration than the program implemented by Olds and colleagues, it would be interesting to learn if the women who completed the BSF program were more likely to return to school, return to the workforce, leave welfare, be reunited with their children, and other attainments relative to maternal life course, when compared with a similar group not receiving the program.

Although BSF is currently limited to short term intervention, a body of literature is emerging that suggests that family support programs need to increase their intensity or duration to be more effective (Howing et al., 1989; Upshur, 1988). While some researchers have documented sustained behavior changes in parents who participate in a short term intervention (Goss, Fogg & Tucker 1995; Stratton, 1998), short term programs have yielded inconsistent results. Future research which examined program duration and intensity in terms of outcomes for parents and children could greatly benefit this promising program.

This study was limited to mothers since the literature has been clear in documenting gender differences regarding locus of control. In general, women tend to score in the external direction while men score more internally (DeBrabander & Boone, 1990; Dyal & Mwamwenda, 1995). Because of the small sample of men currently enrolled in this community and the gender differences documented in the literature, men were omitted from this study. However, further work is needed to determine if changes in locus of control orientation occur for men as well.

Also, future research with this program should incorporate a qualitative research component. Because the ANSIE and PBA are self report questionnaires, measures which include multiple perspectives and qualitative data would add depth, detail and meaning to the quantitative results. Recommended additions include an exit interview for both the program participant and instructor with open ended questions addressing locus of control and parenting, and any changes as a result of the program. It also may be helpful for staff to incorporate an observational assessment such as the HOME to support or refute PBA scores. While qualitative analysis is not intended to test casual interpretation, data based

speculation can allow researchers to make conjectures about which things appear to lead to other things, what produces what effects, and how processes lead to certain outcomes (Patton, 1987). This richness and detail will complement the inferential statistics and provide a more conclusive interpretation of the impact that the BSF program has on locus of control and parenting.

Finally, future studies should incorporate a more rigorous scientific design. This study utilized a quasi-experimental design due to existing program and staff resources. Although the groups were similar at pretest based upon statistical analysis, and differences between groups was found at posttest, there are some potential threats to the validity of the findings inherent in quasi experimental designs. A randomized control group design, however, would be much more rigorous and any differences between the experimental group and control group at posttest could be attributed to the Building Strong Families intervention with greater certainty.

The previous suggestions for future research focused specifically on the Building Strong Families program. However, there are also several recommendations for further studies that could contribute to the overall research base in the area of home visitation and family support programs. The recommendations can be categorized in the three discrete groupings which address either program, staff or participant issues. Results from this sort of study pose significant potential for contributions to the empirical literature base. An overview of recommendations within each of the categories is highlighted below.

Program information that would provide meaningful contributions to the literature includes research that studies if a particular formula for program intensity predicts the

level of success among families. Information that addresses not only the optimal length of the intervention but also the most appropriate schedule for home visits might be useful in allocating appropriate staffing resources in the program planning and implementation process. Clearly, it is crucial to have the right balance when devising a program model. If there is a point in time in which home visitors have saturated their potential to facilitate change, or, on the other hand, if changes in families do not occur until a specific threshold has been achieved, then that information would be extremely advantageous to programs interested in utilizing their resources most effectively. Moreover, home visitation programs often serve multiple purposes ranging from parent education, to community referrals, to health care services. Information that evaluated the various components of home visitation programs to learn if there are specific dimensions that lead to successful outcomes for families more often than others would be helpful.

The second category of research on home visitation and family support programs that is critical to study focuses on staffing issues. While there is currently a great deal of controversy arguing if paraprofessional or professional delivery models are the most effective for home visitation programs, there is consensus that regardless of credentials or previous experience, extensive training and supervision are vital to any program's success (Gumby et al., 1999). Research that examines the elements of successful training and supervision programs would have significant implications for those wanting to prepare and support staff working within the field. Moreover, it would be interesting to learn if there are certain personality characteristics that are predictive of "good" staff, or if the more critical predictor is a "goodness of fit" between program participants and staff. Information which more clearly describes if there are particular types of people

who are more effective with particular clients, or if there are individual attributes and qualities within staff that account for the majority of success has implications for programming in terms of staff recruitment and training to client intake and staff assignments. Evidence linking staffing issues to measures of success and outcomes for families has great potential for improving program infrastructure to more skillfully support the participants programs intend to serve.

Finally, there is great opportunity to learn more about those who participate in home visitation programs. It would be worthwhile to know if there is a specific client profile that best describes those who are most likely to benefit from home visitation. Research in this area would offer insight regarding any relationships which exist between program effectiveness and variables such as child's age, parent skill level, maternal age, education level, and others. If information suggests that effectiveness is related to certain parent or child characteristics, then that knowledge would be helpful not only in developing and adapting programs, but also in targeting appropriate referrals. Additionally, studies that explore if there is a window of opportunity, or a teachable moment, when participants are more likely to enroll or accept new information and/or ideas, would allow program staff to time the interventions more effectively. Lastly, a significant source of data is often lost to programs, in those families who choose to discontinue services. In general, very little is known about this subgroup of the target population. Knowledge that describes if there is a tendency in which either the most skilled participants or the most needy drop out of programs would make a significant contribution to this area of work.

Clearly, there are numerous research opportunities yet to be investigated within the field of home visitation. Additional findings would provide the necessary data and details describing the effective elements and the predictors of successful home visitation programs. Future research focusing on any one of these issues presents significant opportunities for families, staff and stakeholders. This information would be meaningful not only to the Building Strong Families program but also others involved in the development, implementation, and evaluation of home visitation and family support programs.

#### Implications

Parenting is affected by several domains of parental functioning such as knowledge, skills, attitudes and capacity, each of which is affected by child characteristics and contextual support (Belsky, 1984; Pecora, Fraser, Nelson, McCroskey & Meezan, 1995). One of the major domains that appears to get less evaluation attention than the others is the parents' capacity to provide adequate care. The importance of incorporating this component in program planning and evaluation activities is directly associated with Belsky's model (1984) which states that personal characteristics of the parent impact parental functioning. While investigators claim that improving parental capacity is an important objective, one must be cautious in concluding that improved competency will directly result in reducing child maltreatment (Fink & McCloskey, 1990). However, in future studies and programs, all determinants of parenting, in addition to child characteristics and contextual support, may be the direct or indirect focus of an intervention and must be evaluated in family based programs (Percora, Fraser, Nelson, McCroskey, & Meezan, 1995).

Throughout this study, other investigators and their scholarly works have provided the foundation for why locus of control is an important personality construct. Further evidence was presented which documented the role of locus of control and its influence on parenting. This research demonstrated not only that there is a significant correlation between parenting behaviors and locus of control but also that locus of control can be shifted toward internality as a result of an educational intervention. These findings present a substantial impact for the field of parent education and program planning. As Belsky (1984) hypothesized, while parenting is multiply determined, the most critical element in determining whether or not parents are capable of providing optimal care to their children is psychological resources. The likelihood that parents can respond and interact with their children in responsive and nurturing ways is the least when the parent is not psychologically healthy. While some investigators may disagree with the importance Belsky places upon parental capacity, his theory has been widely embraced by the scholarly community. Therefore, if, in fact, parental psychological resources are the most critical element of the parenting process, then it makes sense that this concept of increasing or supporting parental capacity becomes an indirect or direct focus of family support and parent education programs. If it is true that the most important predictor of competent parenting is attributed to the personal development of the parent, it seems as if the parent, rather than the child, should be a focus of parenting education programs. Programs need to begin an intervention with parental resources in mind, finding ways to support parents' growth and development into mature, psychologically healthy adults and

then move to parenting skills, child development principles, and so on, the potential to have long term impact may increase. This change in program development would represent a significant paradigm shift. Yet, the work of First & Way, (1995), further supports the idea that focusing parent education on teaching parents new ways of thinking and viewing the world as opposed to teaching only parenting skills, creates the opportunity for meaningful transformation in multiple areas of the parents' life. This suggests that perhaps parent education is most effective when thought of in the context of adult education. In other words, the focus of the intervention should be to facilitate change within the adult, in general, rather than concentrating upon parenting or some other narrowly defined topic. It is time that those involved with program development and implementation accept that any intervention directed exclusively toward the child will probably be short lived (Black et al., 1994). Only when there is an intentional shift toward developing interventions that focus upon strengthening parents, families, and communities will we build long term capacity and promote long term change.

Another significant implication of this research is the impact its findings may have upon the growing interest in and understanding of early brain development in children. Neurologists and other experts are advocating that the early care and nurturing children receive has significant impacts on their brain development. Since parents are typically the ones who are the primary caregivers of young children, parents have great opportunities to influence their children's brain development and intellectual capacity. Studies on the quality of the caregiving environment indicate that stimulating, responsive, nurturing care contributes to optimal brain development in young children. Interestingly, these same descriptives are those associated with parents with internal locus of control

orientations. If parent education programs can be redesigned to incorporate opportunities to build parental capacity and develop parental resources, including shifts toward internal locus of control orientations, the impact on parenting behaviors, and ultimately the brain development of young children could be great. Clearly, this research and others with similar findings have significant findings and serious implications for families and children. Results must be taken thoughtfully and translated into program and/or policy recommendations.

Another implication of this study is, based upon limitations that surfaced through the course of this study, a significant contribution might be to revise the Parenting Behavior Assessment, (PBA), which is currently used as the evaluation instrument in the Building Strong Families program. The instrument was developed specifically to evaluate the effectiveness of the BSF program by measuring changes in parental perceptions of parenting behaviors. While the instrument has been useful in documenting program effectiveness, concerns regarding the reliability of the instrument to measure change have arisen. The concern is that while the instrument includes 32 items which are reflective of responsive, nurturing parenting, the behaviors are those more common among parents of toddlers and preschoolers than parents of infants. For example, items include "I encourage my child to use her hands", "I take my child outside to play", "I encourage creative play", "I encourage my child to play with friends his own age", to name a few. If a participant has an infant, she may not be engaging in those behaviors because it may seem inappropriate for the age of her child. However, 3 to 4 months later when she completes her posttest, her child is at a different developmental stage and she has started to report engaging in these types of parenting behaviors more frequently.

While the mother in this example would experience significant increases in her parenting behaviors from the beginning to the end of the program, it is not clear if these changes are a result of her learning that these are important behaviors, or that her child is older and it makes sense to do these kinds of activities at the child's current developmental stage. Therefore, the program is taking credit for increases in parenting behaviors which might be better explained by maturation. An additional measure, based upon the indicators of responsive, nurturing parenting behaviors of parents of children less than 12 - 15 months of age is needed to more accurately report program effects.

Another major implication of this research is the meaning it has for the Building Strong Families program and the university land grant system that supports it. For 9 years, program and administrative staff have been hearing anecdotal reports about and observing changes in those who have participated in the program. Staff has speculated that there was something significant about the BSF program which facilitated change in participant's attitudes about self and life, but never had the empirical evidence to substantiate this. The findings from this study present great validity to the work that the staff are doing and the much needed feedback to those who are involved with the program at many levels. Moreover, within the university system in general, these findings pose questions about the successful elements of educational programming and suggest that perhaps BSF can serve as the model throughout the organization for effective planning, management, implementation and evaluation of paraprofessional, home visitation programs.

**APPENDICES** 

### **APPENDIX** A

## Michigan State University Extension Children, Youth and Family Programs

## **Building Strong Families Parent Consent Form**

Name of parent:\_\_\_\_\_

Family number:\_\_\_\_\_

We are conducting an evaluation to better serve parents of young children throughout Michigan. Your participation in this project is voluntary and services are sill available should you choose not to participate. Information collected will be kept confidential and your name will not be used in any way when reporting the results of this project. You have the right to drop out of the project at any time. By participating you could help other parents like yourself.

Signature of parent:	Date:
<b>U I</b>	

### **APPENDIX B**

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### **Building Strong Families Participant Record Form**

Instructor's Name:	County:		
Date of Enrollment:	Participant Number:		
Participant's Name: Address:		Type of Instruction: <ul> <li>Group</li> <li>Individual</li> <li>Both</li> </ul>	
Telephone: ()		• Other	
Sex of caregiver who participates	Family composition:	Ethnicity:	
In the program: Image: Male Image: Male I	Two parent Extended family	African-American Hispanic	
<ul> <li>Pregnant</li> <li>Breastfeeding</li> </ul>	G Foster Parent Other:	<ul> <li>American Indian</li> <li>Asian</li> <li>Multi-cultural</li> </ul>	
Residence: Towns under 10,000 & rural	Education: Last grade completed:	Other (specify) Family participation at entry:	
<ul> <li>Towns &amp; Cities 10,000-50,000</li> <li>Suburbs of Cities over 50,000</li> <li>Central Cities over 50,000</li> </ul>	Total Monthly Income: \$	FIP     WIC     Commodities     Other     Food Stamps     Head Start	

Family/Household Members	Schold Members Date of Age Relationship to		S	Sex	
(Include the Participant on Line #1)	Birth	8-	Participant	М	F
1.			Self		
2.					
3.					
4.					
5.					
6.					
7.					
8.					

Form R2/6-99

### **APPENDIX C**

## Michigan State University Extension Children, Youth and Family Programs

## WIC Parent Consent Form

Name of parent:\_\_\_\_\_

Family number:

We are conducting an evaluation to better understand and serve parents of young children in Wayne County, Michigan. Your participation in this project is voluntary and WIC services are sill available should you choose not to participate. Information collected will be kept confidential and your name will not be used in any way when reporting the results of this project. You will complete 3 surveys today and 2 surveys 12 weeks from now. In total, it should take you less than one hour of your time. If you complete both surveys, you will receive a \$10 gift certificate to your local grocer. However, you have the right to drop out of the project at any time. By participating you could help other parents like yourself. If you have any questions regarding the study or your participation, please call Dawn Koger at (313)833-3414.

Signature of	parent:	Date:
U .		

### **APPENDIX D**

Date of Enrollment:       Participant Number:         Participant's Name:	Instructor's Name:			C	ounty:			
Participant's Name:	Date of Enrollment:			Pa	articipant Number:			
Sex of caregiver who participates in the program:       Family composition:       Ethalcity:         Male       Single parent       White         Male       Two parent       African-American         Premale       Extended family       American Indian         Pregnant       Other:       American Indian         Breastfeeding       Other:       American Indian         Residence:       Education:       Saian         Towns under 10,000 & rural non-farm       Last grade completed:       Family participation at entry:         Suburbs of Cities over 50,000       Total Monthly       Gommodities Other         Suburbs of Cities over 50,000       Income: S       Head Start         Family/Household Members       Date of Birth       Age       Relationship to Participant         Include the Participant on Line #1)       Birth       Age       Relationship to Participant         1.       Self       Image: Self       Image: Self       Image: Self         2.       Image: Self       Image: Self       Image: Self       Image: Self	Participant's Name: Address: Telephone: ()				Type of Instructi	on:		
Family/Household MembersDate of BirthAgeRelationship to ParticipantSex(Include the Participant on Line #1)Include the ParticipantInclude the Participant	Sex of caregiver who participat in the program: Male Female Pregnant Breastfeeding Residence: Towns under 10,000 & rural non-farm Towns & Cities 10,000-50,000 Suburbs of Cities over 50,000 Central Cities over 50,000	es Family S T E E C C C C C C C C C C C C C C C C C	composition ingle parent wo parent xtended fami ooster Parent ther: ion: ide complete fonthly :: S	n: ily ed:	Ethalcity: White African-Ame Hispanic American Ind Asian Multi-cultural Other (specif Family participatio FIP Commodities Food Stamps Head Start	rican dian fy) n at en wIC Other	try:	
(Include the Participant on Line #1)     Birth     Birth     Birth     Participant     M     F       1.     Self     2.     Image: Self mark     Im	Family/Household Men	Members Date of Age		ly/Household Members Date of Age		Relationship to	s	ex
Self           2.	(Include the Participant on	Line #1)	Brth		Participant	М	F	
2.	•				Self			
	!.							

. Form R2/6-99

3. 4.

5. 6.

7. 8.

### **APPENDIX E**

### Adult Nowicki-Strickland Internal-External Control Scale

#### Directions: Please circle the answer which best describes how you feel for each question.

Yes	No	1. Do you believe that most problems will solve themselves if you just don't fool with them?
Yes	No	2. Do you believe that you can stop yourself from catching a cold?
Yes	No	3. Are some people just born lucky?
Yes	No	4. Most of the time, do you feel that getting good grades meant a great deal to you?
Yes	No	5. Are you often blamed for things that just aren't your fault?
Yes	No	6. Do you believe that if somebody studies hard enough, he or she can pass any subject?
Yes	No	7. Do you feel that most of the time it doesn't pay to try hard because things never turn out right anyway?
Yes	No	8. Do you feel that if things start out well in the morning, it's going to be a good day for you no matter what you do?
Yes	No	9. Do you feel that most of the time parents listen to what their children have to say?
Yes	No	10. Do you believe that wishing cam make good things happen?
Yes	No	11. When you get punished, does it usually seem it's for no good reason at all?
Yes	No	12. Most of the time, do you find it hard to change a friend's opinion (mind)?
Yes	No	13. Do you think that cheering more than luck helps a team to win?
Yes	No	14. Did you feel that it was nearly impossible to change your parents' minds about anything?
Yes	No	15. Do you believe that parents should allow children to make most of their own decisions?
Yes	No	16. Do you feel that when you do something wrong, there is very little you

can do to make it right?

Yes	No	17. Do you believe that most people are just born good at sports?
Yes	No	18. Are most of the other people your age stronger than you are?
Yes	No	19. Do you feel that one of the best ways to handle most problems is just not to think about them?
Yes	No	20. Do you feel that you have a lot of a choice in deciding who your friends are?
Yes	No	21. If you find a four leaf clover, do you believe that it might bring you good luck?
Yes	No .	22. Did you often feel that whether or not you did your homework had much to do with what kind of grades you got?
Yes	No	23. Do you feel that when a person your age is angry at you, there's little you can do to stop him or her?
Yes	No	24. Have you ever had a good-luck charm?
Yes	No	25. Do you believe that whether or not people like you depends on how you act?
Yes	No	26. Did your parents help you if you asked them to?
Yes	No	27. Have you felt that when people were angry with you it was usually for no reason at all?
Yes	No	28. Most of the time, do you feel that you can change what might happen tomorrow by what you do today?
Yes	No	29. Do you believe that when bad things are going to happen, they just are going to happen no matter what you do to stop them?
Yes	No	30. Do you think that people can get their own way if they just keep trying?
Yes	No	31. Most of the time do you find it useless to try to get your own way at home?
Yes	No	32. Do you feel that when good things happen they happen because of hard work?

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Yes	No	33. Do you feel that when somebody your age wants to be your enemy there's little you can do to change matters?
Yes	No	34. Do you feel that it's easy to get friends to do what you want them to do?
Yes	No	35. Do you usually feel that you have little to say about what you get to eat at home?
Yes	No	36. Do you feel that when someone doesn't like you there's little you can do about it?
Yes	No	37. Did you usually feel that it was almost useless to try in school because most other children were just plain smarter than you?
Yes .	No	38. Are you the kind of person who believes that planning ahead makes things turn out better?
Yes	No	39. Most of the time, do you feel that you have little to say about what your family decides to do?
Yes	No	40. Do you think it's better to be smart than lucky?

Form
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ior Sc
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ting B
Jaren

Post-Test Date: \_ Pre-Test Date: \_\_\_

Age of Child (months): \_ Participant Number: \_\_

Ŷ	Description	Pre	Post	No.	Description	E	Leo	
-	I encourage my child to do things with her hands.			17	I talk to my child about how things look or how things happen.			
2	I provide things for my child to play with.			18	I set limits for my child.			
3	I encourage my child to play with other children.			19	I give my child time to calm down.			
4	I encourage my child to feed himself.			20	I take my child to the doctor or clinic when he is sick.			
5	I make up games for my child to play.			21	I look at books with my child.			
9	I help my child to be comfortable around other people.			ន	I help my child feel safe and secure.			
2	I encourage my child to play pretend.			23	l act calm when my child has a temper tantrum.		Ι	
æ	I get involved with my child in active play.			24	I give my child a chance to get exercise.			
6	I talk to my child throughout the day.			25	I listen to my child.			
10	I encourage my child to do things on her own.			26	I enjoy spending time with my child.			
:	I praise my child.			27	I spank my child when he misbehaves.			
12	I take my child to the doctor or dinic for regular check-ups and shots.			28	I allow for both quiet and active times.			
13	I encourage my child to make sounds or talk to me.			59	I play games with my child.			
14	I try to teach my child through example.			8	I let my child make choices.			
15	I comfort my child when he cries.			31	I discipline my child without spenking.			
16	I encourage my child to move around and explore safely.			32	l kiss, hug and/or hold my child evenyday.			

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### **APPENDIX** F

Scale:

<sup>5:</sup> Always 4: Often 3: Sometimes 2: Seldom 1: Never

### **APPENDIX G**

# YOU CAN GET \$10-FREE!

Dear

My name is Dawn Koger and I am the person who talked to you at the Gateway WIC clinic a couple of months ago about earning a \$10 gift certificate to Farmer Jack's.

:

I wasn't able to see you at your last WIC appointment, but I don't want you to miss out on your \$10. Since you have already done more than half of the survey a few weeks ago, I only need you to fill out 2 more forms. It should take about 10 minutes.

There are two things to remember when you are filling out the forms. On the sheet that talks about how you act with your children, pick the number at the bottom the page that is most like you for each one and write it in the box. On the sheet that you circle yes or no, remember there is a front and a backside. Make sure you do both! I have sent you a stamped envelope addressed to me so that you can easily return the forms when you are finished.

Thanks again for your help. As soon as I get your forms back and make sure everything is complete, I will send you your \$10 gift certificate.

If you take 10 minutes, fill out the surveys and mail them today, you should have your money in a week! Please page me at (248)966-6716 if you have any questions.

Sincerely,

Dawn Koger

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