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THE INFLUENCE OF A PARAPROFESSIONAL, HOME VISITATION PARENT EDUCATION PROGRAM ON THE SOCIAL SUPPORT AND PARENTING BEHAVIORS OF LIMITED RESOURCE PARENTS

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THE INFLUENCE OF A PARAPROFESSIONAL, HOME VISITATION PARENT EDUCATION PROGRAM ON THE SOCIAL SUPPORT AND PARENTING BEHAVIORS OF LIMITED RESOURCE PARENTS

By

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ABSTRACT

THE INFLUENCE OF A PARAPROFESSIONAL, HOME VISITATION PARENT EDUCATION PROGRAM ON THE SOCIAL SUPPORT AND PARENTING BEHAVIORS OF LIMITED RESOURCE PARENTS

By

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Previous studies examining the effects of home visitation programs have found mixed results. The current study sought to expand upon previous research by examining the potential effects of home-based parent education on the quality and quantity of parental social support and parenting behaviors of limited resource parents. Relationships between social support and parenting behaviors were also tested. This study involved 63 parents in a treatment group and 60 parents in a comparison group. Results of ANCOVA analyses found significant differences at the .05 level of probability for the variables of satisfaction with social support and parenting behaviors. ANCOVA analyses did not find significant differences at the .05 level of probably for the variable of amount of social support. Pearson Product Moment Correlations were used to assess the relationships between social support and parenting behaviors. This analysis suggested that there might be a relationship between satisfaction with social support and parenting behaviors. Three out of four Pearson Product Moment correlations were significant at the .05 level of probability. Pearson Product Moment correlations did not show a relationship between amounts of social support and parenting behaviors. The implications of these findings are discussed.

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INTRODUCTION

Optimally, parenting is a task that is done communally (Daro and Harding, 1999). Multiple sources of support give parents the assistance they need to carry out the job of raising their offspring. "Since the first parent-child dyad, adult caregivers have struggled with the demands presented by their children" (Daro and Harding, 1999, p.152). In response, parents have relied upon the support of the human and material resources found within the spheres of their ecosystem. This has often included informal sources of support, such as aid from a partner or spouse, kin, friends, neighbors, and co-workers. These resources augmented the knowledge and skills of parents by providing assistance. Social support is defined as the emotional, informational, and instrumental assistance that other people give to parents (Crockenberg, 1988).

In recent times, however, a quickly changing society has stripped away many of the informal supports traditionally relied upon by parents to assist them in caregiving. Current societal conditions have left many parents bereft of the support needed to meet the complex and taxing demands of parenting. The reduction of social support for parents is due to many factors, including greater mobility of families, smaller family sizes, and greater societal restrictions on informal exchanges (Carter, 1996; Crockenberg, 1988; Cochran, 1993; Webster-Stratton, 1997). Societal restrictions include such ecological factors as unsafe neighborhoods, and time constraints placed on dual-earner families (Cochran, 1993).

Mobility has increased across all segments of our society. Economic and public policy changes have forced many people to seek employment that may cause them to commute for long distances or relocate. This phenomenon has often served to isolate parents from extended family members and friends who have traditionally provided informal support.

Changing household compositions have tended to produce smaller family sizes. This often equates to fewer people in the family to assist in the caregiving role. The single parent household is a more common occurrence than ever before. In 1995 the percentage of children in Michigan living in a single parent household was twenty-eight percent. This was a higher rate than the national average of twenty-six percent of children living in a single-parent household (Kids Count Data Book, 1998).

Although single parent households have always been a relatively common family form, the causes of solitary parenting have changed (Smith, Cudaback, Goddard, and Myers-Walls, 1994). In the past, single parent families were typically formed as a result of a parent becoming a widow or widower. Now solitary parenting is more often attributed to divorce or never being married. As a result of these changes, "single parents may be more isolated, and perhaps more disillusioned than the single parents of the past" (Smith, Cudaback, Goddard, and Myers-Walls, 1994, p. 7). Of particular concern are low-income single parents, many of whom are mothers. "Socioeconomically disadvantaged mothers are more likely to report depression, isolation from family members and

neighbors and less support available from informal or formal networks" (Webster-Stratton, 1997, p. 157).

Time restraints placed on parents due to employment obligations is a third variable that can leave families isolated and unable to develop and utilize informal social support networks. Often neighbors do not know each other. This diminishes the possibility of informal resource exchange between caregivers.

Another key deterrent to a strong informal support base for parents is a society filled with violence and crime. Parents cannot seek assistance from an environment that is unsafe. "Increasing violence and accompanying fears for one's safety and that of one's children lead many people to isolate themselves and become less involved in their communities, which in turn results in deteriorating social networks, lack of social support for individuals and families, and greater isolation" (Webster-Stratton, 1997, p. 157).

During this period of diminished informal social support some parents have turned to more formal sources of support for assistance with parenting (Carter, 1996; Crockenberg, 1988). However, the formal method of traditional classroom instruction has not always been proven to be an effective means of changing parenting behavior (Webster-Stratton, 1997). Changes in parenting behavior typically occur when the information is personalized and individual support is offered (Kagan and Weissbourd, 1994). Just giving information to parents is not enough to cause changes in parenting practices. "Research suggests that programs which simply provide information about parenting and child development, without interaction with families and provision of other

services and supports, are unlikely to change parenting practices and lead to enhanced child development" (Weiss and Rittenburg, 1991, p. 5). In other words, parent education that is prescriptive and standard for all situations may not be received well by the parent. Instead parents appear to have greater increases in knowledge, confidence and skills when the treatment combines flexibility with structure and appropriate dosage.

These problems are compounded when working with audiences who have not been successful utilizing formal support systems in the past. Audiences who have been unsuccessful working with formal support systems in other endeavors may be either reluctant or unable to access these same systems with parenting concerns. Such may be the case with limited resource parents.

Limited resource parents are defined as those parents who have low educational attainment and few monetary resources. "Past failures in school are a major barrier to participation in adult education programs. Individuals who view themselves as academic failures as children often continue to believe they cannot succeed as adult students. Many have great difficulty changing this perception. Unlike middle-class participants who have experienced success and satisfaction in education, limited resource adults typically avoid participation in educational programs because it represents another potential opportunity for failure" (Pearson, 1995, p. 1).

In addition to low educational attainment, limited resource parents also have few monetary resources. Lack of resources may prohibit potential learners

from accessing formal sources of parent education because of an inability to acquire transportation, child care, or program fees.

Social support is an important element in parenting because it helps to boost parents' emotional and physical ability to provide an optimal caregiving environment for their children. Research has found that higher levels of social support can enhance parental coping skills, decrease parents' psychological or physical pathology and provide relief from daily burdens that might otherwise accumulate to incapacitate the parent, or press him or her into inappropriate or even abusive parenting behaviors (Cochran and Niego, 1995; Cohen and Wills, 1988; Thompson, 1995).

With an inability to access either formal or informal sources of parent education and support, limited resource parents are at a higher risk for parental dysfunction and child maltreatment (Burke, Chandy, Dannerbeck and Wilson-Watt, 1998; Garbarino and Whittaker, 1983; Thompson, 1995). "Indeed studies have shown that economic deprivation combined with a lack of social support creates an especially dangerous situation for children in terms of child abuse" (Webster-Stratton, 1997, p. 157).

Home-visitation parent education programs have risen up in response to the lack of support for limited resource parents of young children (Daro and Harding, 1999; Gomby, Culross, and Behrman, 1999). Conceptually, the home-visitation program is a treatment modality that can provide support to parents in a unique manner. By bringing supports to the parent's environment, "home visitors can see the environments in which families live, gain a better understanding of

the families' needs, and therefore tailor services to meet those needs. The relationships forged between home visitors and parents can break through loneliness and isolation and serve as the first step in linking families to their communities" (Gomby, Culross, and Behrman, 1999, p. 5).

In theory, home-visitation parenting programs appear to be a treatment modality that would effectively support parents of young children in their caregiving responsibilities. To date, empirical evidence has not been able to verify this proposition for home-based parent education programs. The results of studies assessing the effectiveness of home visitation programs have been conflictual. Studies have not been able to answer the critical research questions that are needed to determine if home visiting is an effective service delivery method. There are still many questions regarding the optimal conditions for home-visitation programs, including program protocol, such as the number, intensity, frequency and content of visits; staffing experience, supervision and training; recipient characteristics and evaluation procedures (Gomby, Culross, and Behrman, 1999).

Statement of the Problem

Supporting parents in their role of raising children has long been considered an important responsibility for our society (Carter, 1996). Most social support for parents traditionally came from informal means, such as family, friends, community organizations and church groups (Carter, 1996). These support groups provided parents with advice, physical assistance, and perspective. Within the past three decades parents have found traditional forms of social support to be greatly diminished. Increasingly, parents have had to

search for alternative forms of social support to assist them in the role of raising their children. Formal methods of providing parent education have been found to be ineffective for some parents, particularly limited resource parents of young children (Webster-Stratton, 1997). Traditional forms of parent education have tended to be formal in style and behavioralistic in nature, focusing primarily on skill acquisition (First and Way, 1995). "For low-income families particularly, parent management training programs need to focus more broadly on building community networks and parent support. As the number of people whom low-income parents feel they can rely on for informal assistance increases and as they feel more satisfied with their social support, the more likely they are to be nurturing and positive in their parenting and the less likely they are to report problematic behavior, compared with low-income mothers who feel isolated and dissatisfied with their social support" (Webster-Stratton, 1997, p. 158).

In order to provide support to limited resource parents, it has been posited that a paraprofessional, home-visitation delivery of parent education can increase parental skills and act as a bridge to other kinds of community assistance (Olds, Kitzman, Cole, and Robinson, 1997). However, not enough is known about the actual effects of providing parent education through this delivery method. In fact, empirical studies have shown mixed results for changes in parenting behaviors and minimal data has been presented on the effectiveness of this delivery method to change parental social support networks.

Studies showing evidence in support of changes in parenting behaviors have associated this delivery method with increased parent-child interaction

(Daro and Harding, 1999), maternal parenting efficacy (Duggon, McFarlane, Windham, Rohde, Salkever, Fuddy, Rosenberg, Buchbinder and Sia, 1999; Luster, Perlstadt, McKinney, Sims and Juang, 1996); maternal-child attachment (Jacobson and Frye, 1991), child IQ (Blair, Ramey and Harden, 1995; Liaw, Meisels and Brooks-Gunn, 1995), maternal involvement (Boger, Richter, Hurnetz and Haas, 1986), better prenatal care and fewer pre-term births (Rogers, Peoples-Sheps and Suchindran, 1996). Other studies have not found evidence to associate home-visitation parent education with changes in parenting outcomes (Barth, 1991; Choi, Berger and Flunn, 1997; Siegel, Bauman, Schaefer, Saunders and Ingram, 1980; Silver, Ireys, Bauman and Stein, 1997). These mixed results create the need for additional research assessing the effects of home-visitation programs on parenting behaviors.

The need for research on the effects of home-visitation programs on social support is evident. Currently, very little is known about the effects of a home-visitation parent education program on parental changes in social support network (Cochran and Niego, 1995; Webster-Stratton, 1997). "In the research literature, little reference is made to therapeutic strategies used to decrease families' isolation or promote their involvement or to build a sense of community, either within the group or the larger community. Indeed compared with our well-developed research methods of measuring changes in parenting behavior, few studies report measuring outcomes having to do with social networks, parents' sense of support or their involvement in their children's education or school" (Webster-Stratton, 1997, p. 158). In keeping with this deficit of empirical data, a

recent study of home-visitation programs found that social support changes were seldom included as an investigative variable (Gomby, Culross, & Behrman, 1999).

Purpose of the Study

The purpose of this research was to examine the effects of a paraprofessional, home-visitation parent education program on the social support and parenting behaviors of limited resource parents. Specifically, this research assessed whether or not social support levels increased and perceptions of positive parenting behaviors improved as a result of participation in a home-based, parent education program. Analysis was conducted to determine what changes occurred in the entire treatment group, as well as subgroups of the sample. This research also explored correlations between social support and parenting behaviors.

The overall design of the Building Strong Families (BSF) program was thought to contribute to the results of this investigation. Specifically, the program model was predicted to influence changes in parenting behaviors and social support because of its paraprofessional, home-based design. First of all, it was anticipated that the use of a paraprofessional instructor would help the parent form a positive relationship between the parent and instructor (Gomby, Culross and Behrman, 1999). It has been suggested that a relationship builds between the paraprofessional home visitor and parent because the home visitor is viewed as having a similar background as the parent and having faced similar challenges (Gomby, Culross and Behrman, 1999). The closeness between the parent and instructor promotes a sense of trust and encourages the parent to

disclose his or her needs and desires. The instructor is then able to present information that is customized to the specific issues within the family. This helps the parent accept the information and seek to incorporate it into his or her lifestyle.

Secondly, the paraprofessional, home-based design was anticipated to contribute to the results of this study because it is believed to help the instructor serve as a role model for the parent (Gomby, Culross and Behrman, 1999). As the home visitor role models the information that is taught in the curriculum, the parent is able to view the skills being demonstrated. Parents are more comfortable practicing and learning skills that they have seen demonstrated for them.

A third way in which this paraprofessional, home-based design was anticipated to effect the results of the study was by the instructor serving as a form of social support for the parent until additional linkages could be built in his or her support network. The instructor provided emotional and informational support to the parent while parenting behaviors and social support levels were being increased.

A final element speculated to contribute to the effectiveness of the program was the content of the BSF program. The BSF materials are designed to meet the specific needs of a limited resource adult audience. They are written at a third-grade reading level and are graphically illustrated in four-color pictures. Also, they are written to build upon the strengths of the parent and allow the parent to contribute to the discussion. These curriculum attributes are thought to

build the parent's confidence in his or her parenting ideas, while still gaining additional information.

Further, the materials are specifically written to provide information on positive parenting behaviors and building social support networks. The flipcharts and videotapes give information and demonstrate how to build skills in these two areas. Experiential activities help the parent practice skills in building parenting behaviors and social support networks. For example, one unit of the BSF curriculum asks the parent to set a goal and work toward accomplishing the goal by contacting local resources to assist him or her. The activity suggests that local resources may include a neighbor, friend, or formal support services, such as a lawyer, doctor or agency person.

Research has shown that a theoretically based program design, that incorporates relationship-building and education into home visits, is effective in creating change in parents (Olds, Henderson, Jr., Kitzman, Eckenrode, Cole, and Tatelbaum, 1999; Olds, Kitzman, Cole and Robinson, 1997). Based on this empirical evidence, the overall design of the BSF program was posited to contribute to the effectiveness of the intervention to create changes in parenting behaviors and social support in limited resource parents.

Significance of the Study

The findings of this study will be helpful in furthering the understanding of the influence of paraprofessional, home-visitation parent education programs on the social support levels and parenting behaviors of limited resource parents. This knowledge will help guide the focus and direction of parent support programs for limited resource parents. Currently administrators and staff in

policy and programming systems are struggling to make decisions regarding how best to provide parenting information to parents. Important decisions regarding staffing, program protocol and content can effect the budget and administration of parent education programs. Paraprofessionals are less expensive to hire, but are they effective in helping parents change behaviors? Also, if paraprofessionals are used, what expenses need to be invested in training and supervision of staff? And finally, are home visits an effective method of increasing support for limited resource parents?

If this paraprofessional home-visitation program is found to be effective in increasing social support levels and positive parenting behaviors in low-income parents, then program administrators should consider broadening their parent education program to include social support strengthening units. Program planners may want to add such elements as training in interpersonal communication skills, problem-solving, and understanding ways to build support so that both within family support and external sources of support may be enhanced in the family unit (Webster-Stratton, 1997). Ultimately, increasing social support levels in families would help buffer the negative influences of poverty and other life stressors on parenting skills, decrease feelings of isolation and depression for parents and promote a positive environment for children to be raised.

Theoretical Framework

The foundation of the theoretical framework for this study was Belsky's Determinants of Parenting (1984). This model originated from the literature on child maltreatment and posits that parenting behavior is determined by three

primary factors: parent characteristics; child characteristics and contextual sources of support, including marital relations, work and social support network (Belsky, 1984). This model is shown on Figure one.

A Process model of the Determinants of Parenting

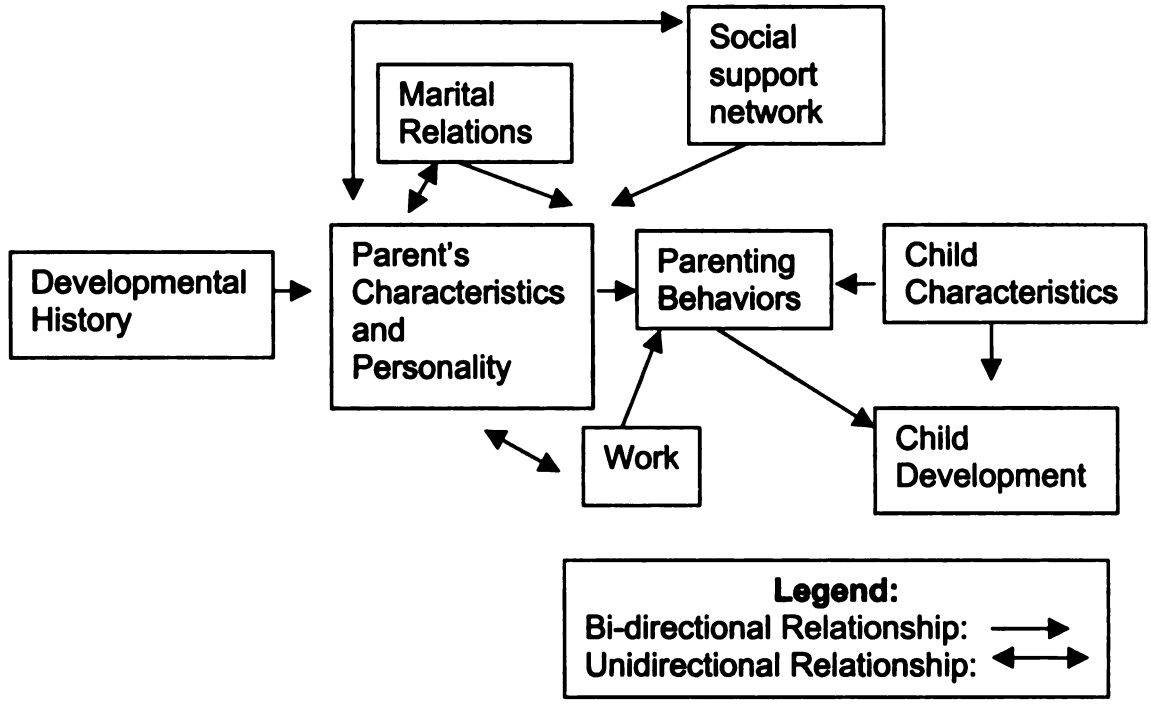

Figure 1. Determinants of Parenting (Belsky, 1984).

One determinant of parenting behavior is parent characteristics. Parent characteristics is defined as personality. According to Belsky (1990) personality is influenced by the parent's temperament, emotional states and maturity level. These variables work together to play a strong role in the parent's ability to respond to his or her child. Studies have shown that parents who are psychologically healthy, with high levels of ego development and feelings of self efficacy, tend to be positively associated with parenting behaviors that are more warm, sensitive and responsive to their infants (Belsky, 1990.) Conversely,

parents who are depressed, with low levels of self efficacy and control, tend to display parenting behaviors that are less affectionate, responsive and more controlling with their young children.

Personality, according to Belsky (1984), is also effected by the parent's developmental history. Studies have shown that parents who were classified as securely attached in childhood tend to provide more emotional support and assistance when interacting with their young children (Belsky, 1990). They are also more likely to rear infants who develop secure attachments to them. Parents with insecure attachment histories may be at risk of repeating the poor parent and child interaction they experienced in their family of origin.

The domain of parent personality is also indirectly effected by the variables of work, marital relations and social support network. For example, a parent who feels supported by a partner, coworker or friend feels better about him or herself and is able to invest more emotional and physically energy into positive parenting.

A second determinant of parenting behavior is child characteristics. Child characteristics are hypothesized to have direct effects on both parenting behaviors and child development. This variable includes such elements as the child's age, stage of development and temperament. Difficult child temperament attributes, such as negative mood, high activity level and inclination to disobey, tend to be associated with more negative and controlling behavior in parents (Belsky, 1990).

The third determinant of parenting behavior is contextual sources of support. This determinant is portrayed in Belsky's model as the concepts of marital relations, work and social support network. All three of these sources of support effect parenting both directly and indirectly through the variable of parent's characteristics and personality.

Marital relations are posited to be the strongest contextual variable effecting parental functioning (Belsky, 1990). Marital relations can be a resiliency factor that protects high-risk families from poor parent and child interaction. Research suggests that a supportive relationship with a partner can help parents break the cycle of intergenerational transmission of negative, rejecting and insensitive maternal care. This is particularly true for parents who are at risk of poor parent and child interaction because of seriously discordant families of origin, teenage status or abusive histories (Belsky, 1990).

If the relationship with a spouse is the primary support system for parents, it is likely that the personal social support network between parents and their friends, kin, neighbors, and associates is the next most important system of support (Belsky and Vondra, 1989; Belsky, 1984). The personal social support network is comprised of all the people outside the immediate family, who the parent knows and thinks is important to him or her. In many households, the social support network may serve as the principle system of support. This is especially true for single parent households or families where the spousal relationship is in turmoil. Studies have shown that caregivers with more social support tend to provide more sensitive and positive care to their children (Belsky,

1990.) "Social support can serve as a buffer against the stress of difficult child characteristics or environmental challenges. Conversely, low levels of social support have been associated with inconsistent parenting, increased punitiveness, decreased use of reasoning as a discipline strategy and fewer parental rewards" (Whipple and Webster-Stratton, 1991, p. 88).

This study sought to add to the field of knowledge about parenting determinants by exploring three unresolved aspects. One area this study examined was the effects of a home-visitation parent education program on the parent's social support network. Specifically, this aspect of the study assessed the effects of home-visitation parent education on the parent's quality and quantity of social support. This relationship is graphically portrayed on Figure two as a bi-directional line between home-visitation parent education and social support network.

The second unresolved area this study examined was the effectiveness of using home-visitation parent education as a form of social support to help parents improve parenting skills. This area of study looked at the direct effects of home-visitation parent education on the parenting behaviors of limited resource parents. This is shown through the unidirectional arrow on Figure two originating at the home visitation parent education and going to the variable of parenting behaviors.

The third area this study investigated was the relationship between social support network and parenting behaviors of limited resource parents. This aspect of study examined relationships among the quality and quantity of social

support and the parenting behaviors of limited resource women. Specifically, this study looked at the effects of social support on parenting behaviors. The thick arrow between social support and parenting behaviors on Figure two depicts the posited direct effects of social support on parenting behaviors. The thick arrow from social support through parent's personality to parenting behaviors graphically shows the indirect effects between social support and parenting behaviors.

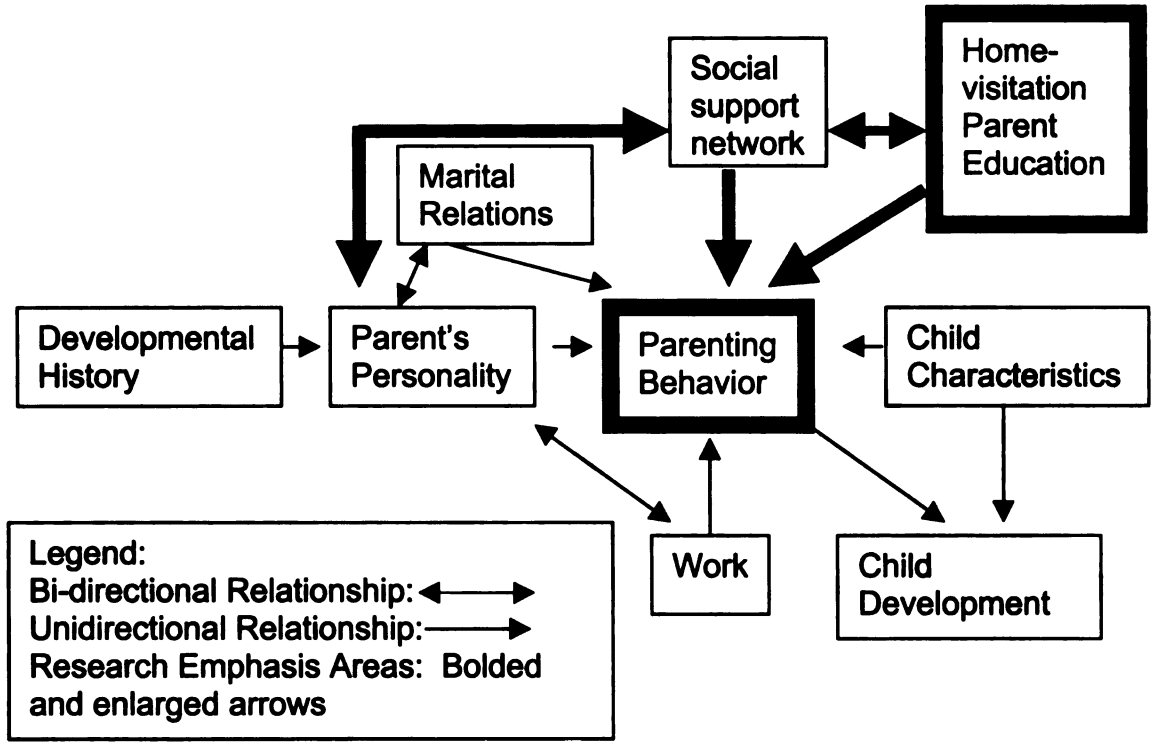

Figure 2. The Influence Parent Education on Parenting Behaviors and Social Support.

Conceptual Map

The conceptual map for this study reflected an ecological approach to studying the influence of home-visitation parent education on parenting behaviors. This approach examined the input, transformation and output of

parents in their role of raising children. A model of the posited evolution within parenting behaviors is depicted in Figure three. The element of "time one" on the model illustrates the input of energy-matter and information that parents received. This included such elements as parent characteristics, social support network and child characteristics. Salient parent characteristics for this research study were income level and educational level. These variables have been found to have both a direct effect on parenting behaviors, as well as an indirect effect through the variable of social support network (Crockenberg, 1988).

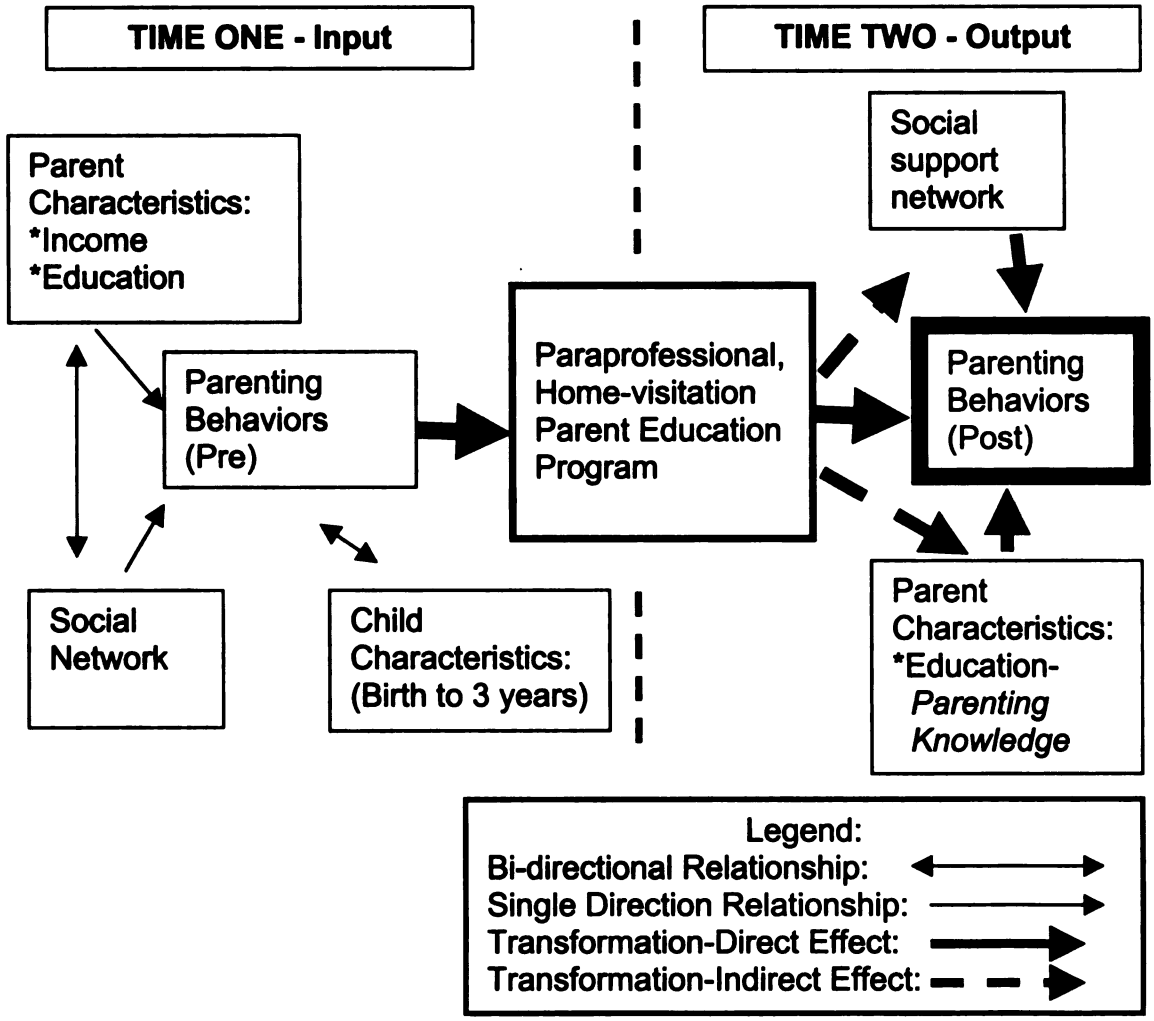

Figure 3. Conceptual Map of the Influence of Parent Education on Parenting Behaviors and Social Support.

Social support network is an input variable that also has both a direct effect on parenting behaviors and an indirect effect through parent characteristics. Social support network members can directly provide input to parenting behaviors by giving the parent information on parenting issues or by providing physical assistance for parenting tasks. Indirect input would be provided when the social support network member provides emotional support to the parent that helps him or her feel better about him or herself. This increased sense of emotional well being is then transferred to improved parenting behaviors.

The final input variable in this conceptual map was child characteristics. This study specifically identified the child characteristic of age as a salient variable in parenting behaviors. The focus of this research was on parenting children who are birth to age 3. Child characteristics were posited to have a bi-directional influence on parenting behaviors.

Transformation for the parenting behaviors of parents was hypothesized to begin as the parent started the home-visitation parent education program. Paraprofessionals were used to deliver the information because it was anticipated that high-risk parents would be better able to form a trusting relationship with the paraprofessional. A trusting relationship between the paraprofessional and parent was believed to be a key component in helping limited resource parents transform current parenting behaviors. "By making efforts to maintain a consistently supportive relationship, the home visitor shows the parent that positive caring relationships are possible. The parent begins to

see herself as someone who deserves support and attention, and by extension, sees her child as deserving the same" (Olds, Kitzman, Cole and Robinson, 1997, p. 20).

The output for formal support is reflected in "time two" of the model (Figure three). As transformation took place parents were posited to improve their parenting behaviors. This was hypothesized to be a direct effect of the home-visitation parent education program. Parenting behaviors were also hypothesized to change through indirect effects from parent characteristics and social support network. The home-visitation parent education program was posited to increase education in parent characteristics and overall amounts of social support network. These increases in social support network and education were hypothesized to have an indirect effect on parenting behaviors.

Operational Map

An operational map was designed to show how the constructs and variables were assessed in this study. Specifically, this study looked at how a paraprofessional home-visitation program influenced the social support network and parenting behaviors of limited income parents of young children. The operational map is diagrammed in Figure four.

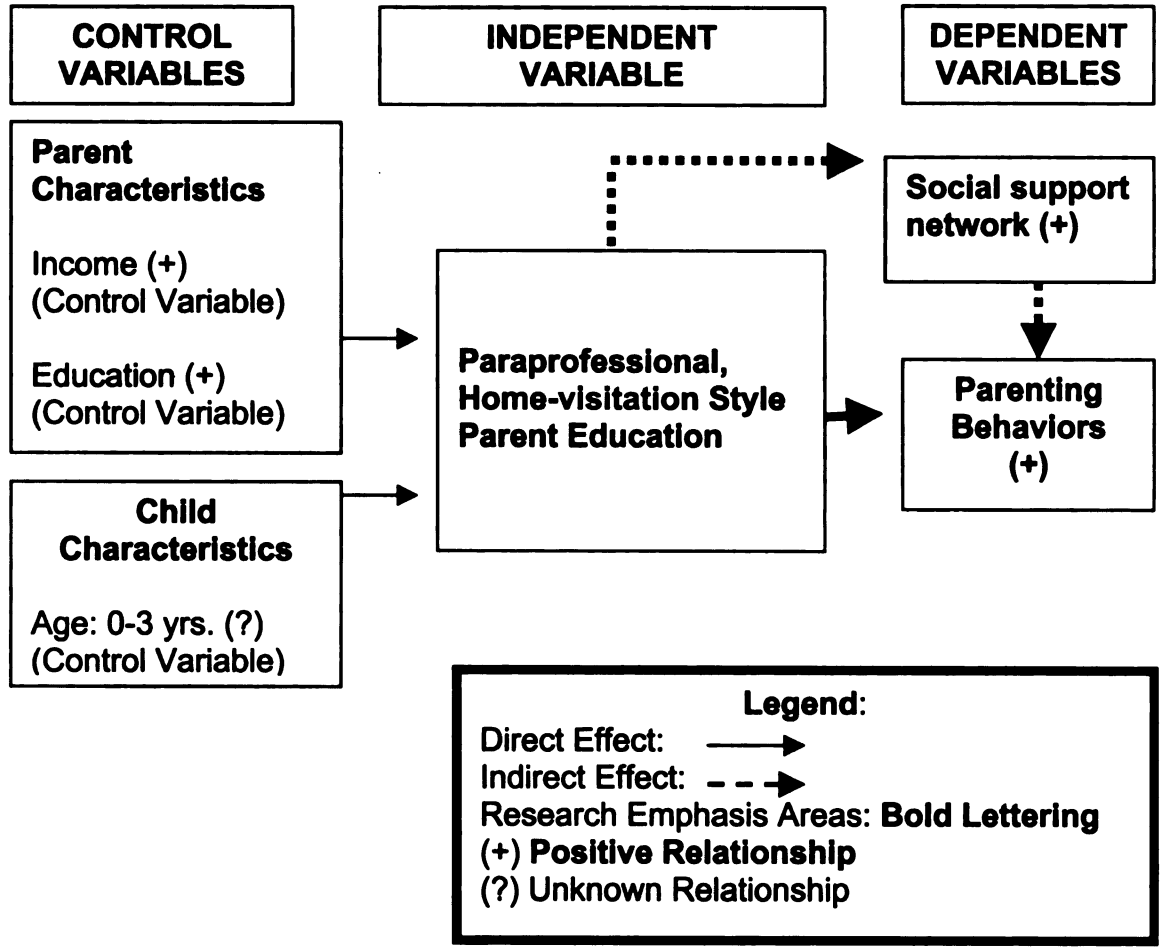

Figure 4. Operational Map.

Constructs and Definitions

This section provides conceptual and operational definitions for the key concepts included in this research.

Independent Variable: Parent Education

Conceptual Definition. Parent education was conceptually defined as "programs, services, and resources offered to parents and caregivers that are designed to support and empower them or increase their capacity and confidence in raising healthy children" (Smith, 1999, p. 149).

Operational Definition. Parent education was operationally defined in this study as the BSF program. BSF is a parenting program developed by Michigan State University Extension. It is targeted at low-income, low-literacy parents of children from birth to age 3. The eight-to-twelve week program is taught by trained paraprofessionals. Using multicultural, cartoon-style flipcharts, videos and experiential activities, the four lesson modules give parents information about child development, positive discipline, parent-child interaction and goal-setting.

Dependent Variable: Social support

Conceptual Definition. Social support has been conceptually defined as "the emotional, instrumental, or informational help that other people provide an individual" (Crockenberg, 1988 p. 141).

Operational Definition. Social support was operationally defined in this study as the scores achieved on the Family Support Scale (Dunst, Trivette and Deal, 1994). This instrument is a self-report questionnaire. It measures quantity and perceived satisfaction with support from a variety of sources, including support from a spouse/partner, kin, informal sources and formal sources. Specifically, this study examined the parent's level of social support. Level of social support was defined in this study as the parent's self-reported rate of quality and quantity of social support. The parent's rate of quantity of social support was calculated as the number of social support items on the Family Support Scale that the parent reported was available to him or her prior to the intervention and after the intervention. The parent's quality of social support was

determined by assessing the mean ratings of parental satisfaction with the various sources of social support listed on the Family Support Scale prior to the intervention and after the intervention.

Dependent Variable: Parenting Behaviors

Conceptual Definition. Parenting behaviors have been conceptually defined as actions used by a parent or caregiver to promote optimal development in a child (Carter, 1996).

Operational Definition.

In this research study parenting behavior was operationally defined as the scores achieved on two instruments. The first instrument selected to measure parenting behaviors was the Home Observation for Measurements of the Environment (Caldwell and Bradley, 1984). There are 45 items in the inventory within six subscales. The subscales include emotional and verbal responsivity of the parent, acceptance of the child's behavior, organization of the physical environment, provision of appropriate play materials, parents' involvement with the child and opportunities for variety in daily stimulation. Each item on the inventory is scored with a yes (indicating that the item is present) or no (indicating that the item is not present). The number of "yes" answers is totaled to give a score.

The second assessment tool selected to measure parenting behavior was the BSF: Parenting Behavior Assessment. Items from the BSF: Parenting Behavior Assessment were read to the participants and shown on a flipchart. Participants ranked the frequency of performing each parenting item by placing a

matching card for each behavior in an envelope that indicated the participant's perceived level of implementation. This procedure was completed both as a pretest and as a posttest.

Control Variable: Parent Characteristics - Limited resource Parents

Conceptual Definition. Limited resource parents have been conceptually defined as anyone who carries the responsibility for raising a child and has below average access to resources, particularly financial resources (Carter, 1996).

Operational Definition. The operational definition of limited resource parents in this study was parents of 0-3 year old children who are at or below 185% of the poverty level.

Control Variable: Child's Age

Conceptual Definition. Child's age has been conceptually defined as the age of a child, as recorded in months.

Operational Definition. The variable of child's age was operationally defined in this study as the number of months a parent indicated that his or her child has been alive. The child's age was recorded by the parent on the Family Record Form upon enrolling in the BSF program.

Other Key Terms

Home Visitation

Conceptual Definition. Home visitation has been conceptually defined as a method of delivering information or services where visitors are sent into families homes to provide information, health care or psychological or other support services (Gomby, Larson, Lewitt & Behrman, 1993).

Operational Definition. This study operationally defined home visitation as the number of times a paraprofessional entered a parent's home to deliver parenting information, as recorded on the parent's Family Record Form.

Family Composition

Conceptual Definition. Family composition was conceptually defined as a term to characterize the members within a household.

Operational Definition. In this study, family composition was operationally defined as the category a parent chose on the Family Record Form when asked to tell if his or her family is a "single parent household", "two-parent household", "extended family" or "other."

Ethnicity

Conceptual Definition. Ethnicity has been conceptually defined as a category identifying people according to a race or large groups of people classed according to common traits or customs.

Operational Definition. Ethnicity was operationally defined in this study as the ethnic group that the parent used to identify him or herself on the Family Record Form. The options included "Caucasian", "African-American", "Hispanic", "Asian" and "Multi-Cultural."

Residence

Conceptual Definition. Residence was conceptually defined as the geographical location where one resides.

Operational Definition. In this study residence was operationally defined as the location where the parent indicated he or she lived at the time of the study. Categories in this study included "rural" and "urban".

Education

Conceptual Definition. Education has been conceptually defined as the number of years a person has completed schooling at a formal institution.

Operational Definition. This study's operational definition of education was the last grade completed by the parent, as reported on the Family Record Form.

Total Monthly Income

Conceptual Definition. Total monthly income was conceptually defined as the amount of money a parent earns in the period of one month.

Operational Definition. Total monthly income was operationally defined as the amount of money a parent said he or she earned in one month's time as indicated by the category selected on the Family Record Form. The categories included "$800 or less per month", $801-$1,000 per month", $1001-$1,200 per month" or "1,201 or more per month".

Participant

Conceptual Definition. Participant was conceptually defined as a person who becomes involved in an activity.

Operational Definition. In this study participant was operationally defined as a parent who enrolled in the BSF parent education program.

Number of Children

Conceptual Definition. Number of children was conceptually defined as the total number of children for whom the parent gives care.

Operational Definition. Number of children was operationally defined as the total number of children the parent listed under the "family members" section of the Family Record Form.

Building Strong Families (BSF) – Treatment Group

Conceptual Definition. Treatment group was conceptually defined as a sample of people who participate in a treatment or intervention as a part of a research project.

Operational Definition. Treatment group was operationally defined in this study as parents who completed the BSF program in the six counties participating in the study and during the time frame of the research.

Comparison Group

Conceptual Definition. Comparison group was conceptually defined as a sample of people who do not participate in a treatment or intervention being tested in a research project.

Operational Definition. In this study comparison group was operationally defined as parents in the six participating counties who were eligible to participate in the BSF program, but were not currently involved in it. Many of these parents were already on waiting lists to become involved in the Building Strong Families program during the time frame of the research project.

Research Questions

This study asked the following research questions:

1. Do levels of perceived satisfaction with social support change for those parents who participate in a home visitation parent education program, as compared to parents who do not participate in a home based parent education program?
2. Does the amount of social support change for those parents who participate in a home visitation parent education program, as compared to parents who do not participate in a home based parent education program?
3. Do parenting behaviors change for those parents who participate in a home visitation parent education program, as compared to parents who do not participate in a home based parent education program?
4. Is there a relationship between perceived satisfaction with social support and parenting behaviors for limited resource parents of young children?
5. Is there a relationship between the quantity of social support and parenting behaviors for limited resource parents of young children?

Assumptions

This research was based on several assumptions about social support, home-visitation parent education programs and parenting behaviors. The primary assumptions included in this study are listed below:

Assumption # 1: Social support is a determinant of parenting behavior (Belsky, 1990).

Assumption #2: The amount of social support a parent has and his/her degree of satisfaction with the support are modifiable (Crockenberg, 1988). The plasticity of parental social support allows its parameters to change as influences change.

Assumption #3: Home-visitation parent education programs can be a form of social support (Carter, 1996; Dunst, Trivette and Deal, 1988).

Assumption #4: Paraprofessional, home-visitation parent education can influence parenting behaviors (Hiatt, Sampson and Baird, 1997).

Assumption #5: Paraprofessional, home-visitation parent education can serve as a gateway to other forms of social support (Olds, Kitzman, Cole and Robinson, 1997).

Assumption #6: Self-report of social support is an effective method of measurement.

Individual perceptions of offered support determine the degree of helpfulness of the support to the recipient. The recipient will find the support to be helpful only when the assistance (1) is requested by the recipient, (2) matches the parent's perceived needs and (3) does not make the recipient feels overly obligated and unable to reciprocate (Dunst, Trivette, and Deal, 1994; Fisher, Nadler and Whitcher-Alagna, 1982). This type of information must be acquired through self-report.

Assumption #7: Supportive parenting behaviors are defined in American culture as responsive, sensitive and age-appropriate care for children.

Sensitive, responsive and age-appropriate care fosters self-regard, self-protection and self-control. These are traits valued in the American culture (Gearity, 1996, Jennings, Stagg and Connors, 1991). __

Assumption #8: There is a need to develop theory about the relationship between social support and parenting behaviors in limited resource parents.

There is plenty of evidence that social support, in general, facilitates positive parenting behaviors. What remains to be explored are the specific components of the mega-construct known as social support and how the components effect individual sub-populations, particularly high-risk families (Jennings, Stagg and Connors, 1991).

Hypotheses

The research hypotheses in this study were based on the literature review. This research tested five hypotheses about the influence of home-visitation parent education programs on social support and parenting behaviors of limited resource parents.

Main Hypothesis

Limited resource parents involved in a paraprofessional, home-visitation parent education program will show an increase in levels of perceived satisfaction with social support as compared to limited resource parents in a comparison group.

Sub-Hypotheses

1. Limited resource parents involved in a paraprofessional, home-visitation parent education program will show an increase in overall amounts of social support as compared to limited resource parents in a comparison group.

2. Limited resource parents involved in a paraprofessional, home-visitation parent education program will show an increase in positive parenting behaviors as compared to limited resource parents in a comparison group.
3. There is a positive relationship between perceived satisfaction with social support and supportive parenting behaviors in limited resource parents.
4. There is a positive relationship between overall amounts of social support and supportive parenting behaviors in limited resource parents.

Limitations

While much effort was made to reduce the limitations of this study, some limitations still exist and need to be acknowledged. One limitation of this study was in the research design. Much importance has been placed on the need to evaluate home-visitation programs using an evaluation design that has a randomly selected control and treatment group (Gomby, 1999; Gomby, Culross and Behrman, 1999). In an evaluation design that has random assignment every participant has an equal chance of being in the treatment or the control group. Such a design was not possible for this study because of ethical considerations. In this study program recipients needed the parenting class, and it would be unethical to deny the parent a needed and desired service to his or her family.

The fact that the comparison group was not randomly drawn from the same population as the treatment group led to the limitation that the comparison group parents might be different from the parents in the treatment group. Many parents sign up for home-visitation parent education programs and never complete them. One analysis of several home-visitation programs found that

between 20% to 67% of the families enrolled in the programs left the program before the scheduled number of visits (Gomby, Culross and Behrman, 1999). In fact, high attrition rates is a consistent problem with home-visitation programs, with many home-visitation programs having annual dropout rates of 50% or higher (Baker, Piotrkowski and Brooks-Gunn, 1999; Gomby, 1999; Gomby, Culross and Behrman, 1999; St. Pierre and Layzer, 1999). Knowing that many of the parents on the waiting list may never complete the entire program, comparing the parents on a waiting list with the parents who complete the program may not be comparing equivalent groups of parents. In cases where the groups were not equivalent, statistical analyses were conducted to compensate for the differences.

Another limitation to using parents on waiting lists as the comparison group was that often waiting lists were very short or nonexistent in these programs. It was difficult to recruit enough families to participate in the control group during the same amount of time as instructors were able to recruit families for the treatment group. Consequently, the time frame for the control group recruitment was much longer than the period of time for the treatment group recruitment. While the time frame for recruiting the treatment group was only four months, control families were recruited over a ten-month period.

A fourth limitation of this study was the instrument used to measure the construct of social support. The social support instrument was chosen because it allowed the researcher to measure both quantity and perceived satisfaction with social support. Social support items were rated by the parent on a scale from

(5)-extremely helpful to (1)-not at all helpful. If social support items were not available to the parent it was rated as a (0). A limitation of the survey was that when a "not available" item was coded as a zero, it lowered the mean score for satisfaction. The quandary is that sometimes less overall support is not as stressful as more support that is perceived as unsatisfactory.

A second limitation on the social support instrument is the way in which it measures amount of social support. The instrument uses pre-determined sources of social support to assess changes. Parents are asked to indicate if the specific sources of social support on the scale are available to him or her. It is possible that the social supports listed on the instrument are not the ones being utilized by the parent.

The small sample size used in this study was another limitation. Although power analysis showed that a sample size of at least 50 participants per group would show results at an alpha level of .05 and a moderate effect level of .80, smaller effects would not show significance (Pecora, Fraser, Nelson, McCrosky and Meezan, 1995). This limitation prevented the investigator from analyzing differences in group means for certain subgroups of the sample.

A sixth limitation to this study was the probability that some of the parents in the treatment group were court-mandated to attend the program, whereas all of the parents in the comparison group had enrolled in the program on a voluntary basis. Since the BSF program does not collect data at entry on whether or not the parent is participating on a voluntary basis, this study is not able to separate court-mandated parents from the other parents in the sample.

Generalizability of the findings was another possible limitation to this study. Although the sample was taken from a mixture of parents from rural, suburban and urban areas, it is possible that parents who become involved in the BSF parenting program at Michigan State University Extension are different from parents who participate in other home-visitation parent education programs. Until other home-visitation parent education programs confirm the results, findings in this study are only generalizable to those parents who participate in the Michigan State University Extension BSF program.

A final limitation to this study was its lack of ability to measure long-term changes in parenting behavior and social support. Parental changes were measured on the last day of the program intervention. In order to document long-term change, a longitudinal study would need to be conducted with parents who participate in this intervention.

Description of the Intervention

The intervention used in this study was participation in the BSF parent education program. BSF is a paraprofessional, home-visitation parent education program. The target audience is limited resource parents of children, ages birth to three years.

Michigan State University Extension in East Lansing, MI developed the BSF program in 1989. Based on evidence that limited resource families did not have access to parent education information and support, the program was created to respond to an identified deficit of parenting support for this population. Specifically, the BSF program was developed to provide limited resource parents

with the knowledge, skills and support necessary to help their children reach their potential.

The core elements of the program are weekly parent education classes delivered through home visits. Home visits were selected as the main information distribution modality because of the administrating organization's previous success with this delivery method for limited resource parents of young children. For thirty years, Michigan State University Extension has used home-visitation as a means of delivering food and nutrition information to this population. The benefits found in Michigan State University's home-based food and nutrition program are ones that were also important to the parent education program. Home visitation facilitated access to people who were geographically or psychologically isolated and not able to attend classes held outside of the home. It also allowed instructors to view parents in transactions with the resources in the local environment and customize services to meet the specific needs of the program recipients. And finally, home-visitation helped parents develop a one-to-one relationship that promoted trust between instructors and parents and encouraged parents to extend this trust to other service providers in the community. Ultimately, this benefit was theorized to reduce isolation for parents, build social support networks and increase parents' resources.

Each BSF program is staffed by a program supervisor and instructors. The program supervisors have a minimum of a bachelor's degree and are experienced in human service delivery. Responsibilities of the program supervisor include day-to-day administration of the program, training and

assessment of the instructors and fiscal management. They coordinate weekly program meetings to allow instructors to share ideas and provide support for each other. Program supervisors receive a minimum of twelve days of training each year, including biannual management meetings.

Instructors for the BSF program are paraprofessional staff who hold a high school diploma or a GED. Responsibilities of the instructors include conducting weekly home visits with parents, data collection for use in program assessment and record keeping. Each instructor receives a minimum of twelve days of training each year, including training in child development, positive discipline, parent-child interaction, parental goal-setting and problem-solving, home-visitation delivery skills, diversity training, adult learning education, accessing community resources, building family strengths and resilience, time management, dealing with difficult people or overcoming barriers. All instructors also attend a biannual meeting to receive staff development and program updates.

Developers of the BSF program chose to use paraprofessionals as parent education instructors because of the theorized benefits of peer educators. By using paraprofessional staff as service providers it is posited that the program is better able to respect the values and needs of the audience. The paraprofessionals are indigenous to the community being served. Parent education instructors are parents from the same neighborhoods in which they are teaching and come from similar backgrounds to the target audience. The similarities in backgrounds help the paraprofessionals present information in a

manner that is nonjudgmental and offer resources that are acceptable to the program recipients. It also helps the paraprofessionals quickly form a trusting relationship with the parents and serve as positive role models.

All Michigan State University affiliated programs have access to a state team of trainers. At the time of this study the BSF program had on staff two state program leaders and a specialist in parenting. The purpose of the state staff is to provide staff development opportunities for local program staff, assist in staff hiring and evaluation, conduct statewide program oversight and evaluation and develop curriculum materials.

The curriculum used by the BSF program has four units. The units cover the topics of child development, positive discipline, parent-child interaction and parental problem solving and goal setting. The child development, positive discipline and parent-child interaction units are each separated into age segments. These units are divided into the following ages: birth-3 months, 4-6 months, 7-12 months, 12-24 months and 24-36 months. Program protocol suggests that instructors cover all of the information for the current age of the child and all of the information for the age that the child will be reaching next.

The information is presented through multi-cultural, four-color flipcharts. The flipcharts are augmented by videotapes that role model the content being taught through the flipcharts. Parents are encouraged to practice the skills taught in the lessons through experiential activities. Lesson review sheets also help the parent remember the material after the lesson has finished.

Lessons last approximately one hour per visit and are presented weekly. Program protocol suggests that the program is a minimum of eight weeks in length. The mean number of visits per family statewide is 12 visits, with the range being a minimum of 8 weeks to a maximum of 27 weeks. Instructors are not required to deny a parent additional classes if there is material that the parent still desires to learn.

Program protocol encourages the instructor to customize the lessons for the parent. Program recipients are asked to express their parenting questions and needs to the instructor. The instructor then is able to present the lessons or information in the order that is most helpful to the parent.

Full-time instructors typically present the entire BSF curriculum to a minimum of 45 families in a year. They carry a caseload of 10 to 12 families at a time. Program recipients are recruited through community agencies, such as the Family Independence Agency and the local health department.

In order to become involved in the program the parent must have a child who is in the age range of birth to three years of age. Many programs also have a recommended income guideline for participation in the program. The income criterion is often 185% of the poverty rate. Participation in the program is voluntary, unless the parent is court mandated to take the classes.

CHAPTER II

LITERATURE REVIEW

This study focused on the parenting determinant of social support because social support is a construct that is considered to have a degree of plasticity.

> Unlike other influences, social support is assumed to be relatively changeable. If families do not have enough social support, it may be possible to increase that support in order to improve parenting. It is this possibility for change, along with the potential impact of that change on parents and children, that has focused the attention of service providers on social support (Crockenberg, 1988, p. 142).

Social Support Defined within the Context of Parenting Behaviors

Social support has been defined as "the emotional, instrumental, or informational help that other people provide an individual" (Crockenberg, 1988, p. 141). The first element mentioned in Crockenberg's definition of social support is emotional support. Emotional support typically is provided in the context of intimate relationships and friendships. "It refers to the expressions of empathy and encouragement that convey to parents that they are understood and capable of working through difficulties in order to do a good job in that role" (Crockenberg, 1988, p. 141). Emotional support can "enhance one's confidence in the interpersonal resources that are available for coping as well as provide outlets for the release of tension and anxiety" (Thompson, 1995, p. 57).

Instrumental support is a second element within the social support construct. Instrumental support involves assisting the parent with concrete help so that the number of tasks or responsibilities a parent must perform is reduced. Typically assistance comes in the form of household and child care tasks

(Crockenberg, 1988). Instrumental aid may decrease the amount of stress in the parent's life by directly resolving instrumental problems or providing the recipient with increased time (Cohen and Wills, 1985).

The degree of support instrumental aid provides to the parent depends on the interpretation of the support. When assistance is (1) requested by the parent, (2) match the parent's perceived need and (3) does not make the recipient feel overly obligated and unable to reciprocate, instrumental aid has been found to increase maternal well-being and parental functioning (Dunst, Trivette, and Deal, 1994; Fisher, Nadler and Whitcher-Alagna, 1982).

Informational support is a third element of the social support construct. "Informational support refers to advise or information concerning child care or parenting" (Crockenberg, 1988, p. 141). It provides parents with help in defining, understanding, and coping with problematic events. Informational support assists parents by helping them reappraise a stressor as benign or suggesting appropriate coping responses to counter a perceived lack of control (Cohen and Wills, 1985). An example of informational support is suggesting appropriate techniques for dealing with a child care problem or helping parents realize that the behavior is normal for the age of the child and undue worry is not necessary.

How Social Support Affects Parenting Behavior

"The complex and multidimensional social support networks of parents affect parental behavior both directly and indirectly because of network associates who provide support, impose stress, offer information, give advice, and otherwise influence adults as workers, community members, and parents"

(Thompson, 1995, p. 41). Crockenberg (1988) has posited that social support may influence quality of parenting through modalities involving both direct and indirect effects. Social support may influence quality of parenting as a reducer of stress events (direct effects) or as a buffer and generator or activator of active coping (buffer effects).

In the direct effects model social support serves as a proactive method of coping with life events. The direct effects model hypothesizes that social support serves as an important component to overall feelings of well-being, regardless of the stress levels. Social support is posited to relate to overall well-being by providing positive affect and a sense of predictability and stability in one's life situation. It is also thought that embeddedness in a social support network may help a parent avoid negative experiences that might otherwise increase the occurrence of psychological or physical pathology (Cohen and Wills, 1985). One way in which the direct effects form of social support functions is by the performance of behaviors which help to eliminate events that may be perceived as stressful. An example of this would be the receipt of help with baby-sitting so the parent does not become physically drained of energy. A second way in which direct effects functions is by providing support so that the parents does not perceive the event as a stressor.

The buffering effects model posits that support is related to well-being when the parent is experiencing a stress reaction. This model suggests that social support protects or "buffers" the stress reaction so that the parent is less likely to encounter the potentially pathogenic influence of stressful events. Social

support is thought to intervene at two different points in the causal link between stress and illness in this model. First, social support may come between the stressful events and the experienced stress reaction, helping the parent to reduce or eliminate the stress response. Once the parent is experiencing a stress response, instrumental support may reduce the stress, thereby eliminating the stress reaction. "Baby-sitting, childrearing advice, and financial assistance simply provide relief from daily burdens that might otherwise accumulate to incapacitate the parent, or press her or him into inappropriate or even abusive behavior patterns" Cochran and Niego, 1995, p. 403).

The support may also come in the form of noninstrumental support. For example, emotional encouragement may build the parent's psychological state so the parent can cope better with the stress. This could eliminate a stress response so that the parent is not adversely affected.

Secondly, the buffer may come between the stress reaction and the onset of illness. In this case, social support can help the parent learn appropriate coping responses, so that the parent is not negatively affected (Cohen and Wills, 1985). This type of support may be either in the form of emotional support, through expressions of empathy, or informational support, such as advice or instruction.

Effectiveness of Support Types

Emotional support and informational support are likely to be responsive to a wide range of stressful events. In contrast, instrumental support and social companionship functions are assumed to be effective when the resources they provide are closely linked to the specific need elicited by a stressful event (Cohen

and Wills, 1985). Cohen and Wills, 1985 suggest that social support, regardless of the content type, will only have stress-reducing effects when four conditions are present. The four conditions include (1) the stressor is one that is socially acceptable and does not result in feelings of guilt and shame; (2) discussion of the stressor will not be detrimental to one's relationship with a comparison other; (3) the support is provided by people who are perceived as providers of accurate information and (4) the support group communicates a relatively calm reaction to the potential stressor.

The four conditions mentioned by Cohen and Wills, 1985 have several implications for using highly trained, paraprofessionals to break isolation in high risk families. Paraprofessionals are usually peer instructors who are often perceived as friends. They can gain credibility with high risk families because they are viewed as having experienced many of the same problems. Strong training for paraprofessionals will help them react calmly to the family's stressors and provide information that the family will receive as accurate (Powell, 1993; Wasik, 1993).

Sources of Support for Parental Functioning

The Marital Relationship. In Belsky's "Determinants of Parental Functioning" model, it is hypothesized that the marital relationship is the first-order support system, with inherent potential for exerting the most positive or negative effect on parenting functioning (Belsky, 1984). "Spousal support of both the emotional (e.g., love, intimacy) and instrumental (e.g., child care tasks) variety is associated with enhanced parental performance--of mothers and fathers alike" (Belsky, 1990, p. 887). Several studies have since moved toward

substantiating Belsky's hypothesis. Evidence suggests that spousal support is a key factor in determining parental functioning (Cooley and Unger, 1991; Crockenberg, S, 1987; Lewitt, Weber and Clark, 1986).

These studies seem to show that spousal support has direct, indirect and moderating effects on the quality of parenting. A spouse might directly effect the quality of parenting by giving appropriate advice or concrete help to the other spouse regarding care of the child (Simons and Johnson, 1996). This type of direct support helps the parent provide higher quality care.

Another type of spousal support may have an indirect effect on the quality of parenting. Support may take place via a third variable, such as psychological parental stress (Belsky and Vondra, 1989). When the spouse gives emotional support, such as expressions of warmth and caring, the other spouse's emotional state may be so effected that quality of parenting raises as a result (Simons and Johnson, 1996).

Finally, spousal support may serve as a mediating variable. For example, a spouse may buffer the perceived stress of an event by providing emotional or informational support. These supportive behaviors may increase the other spouse's emotional state so that quality of parenting does not suffer (Simons and Johnson, 1996).

Social support network. If the relationship with a spouse is the primary support system for parents, it is likely that the personal social support network between parents and their friends, kin, neighbors, and associates is the next most important system of support (Belsky and Vondra, 1989; Belsky, 1984). The

personal social support network is comprised of all the people outside the immediate family, who the parent knows and thinks is important to him or her. In many households, the social support network may serve as the principle system of support. This is especially true in the case of single parent households or families where the spousal relationship is in turmoil. Supportive social support networks can enhance the parent's self esteem, increase problem solving abilities, build skill level and reduce stress levels so that general well-being and parental functioning are enhanced (Cole, Kitzman, Olds and Sidora, 1998; Crockenberg, 1988; Cochran and Brassard, 1979; Dunst, Trivette, and Deal, 1994).

A study of 55 married women found that women who reported high levels of social support during the prenatal assessment subsequently reported higher levels of self-confidence in the parenting role and less depression 3 months after the delivery. Specifically, women who had a larger personal social support network on whom they could rely on for a variety of social provisions were found to have more confidence in their abilities to perform well as mother. This confidence was an effective deterrent to depression (Cutrona and Troutman, 1986).

A study using parents of preschool children also found a positive relationship between social support and maternal well-being. This study involved 69 white, middle-class mothers and their preschool age children. It was conducted to see if social support predicted maternal behaviors. The results found that larger and better quality social support networks were associated with

less perceived parenting task difficulty, resulting in parental functioning that was more warm and nurturing than parents who did not have strong social support (Melson, Ludd, and Hsu, 1993).

A third study looked at a slightly different sample and used an operational definition of social support, as "natural mentors." This study of 127 young African American mothers analyzed the influence of natural mentors on maternal well-being. The study found that satisfaction with social support and intangible support were negatively related to depression, but instrumental aid was found to be positively related to levels of depression. Those mothers who utilized more intangible support and were more satisfied with this support were less depressed. In this study, the mentors seemed to enhance the mother's capacity to benefit from their social support networks. Conversely, the mothers who used their mentors primarily for instrumental support or were less satisfied with their social support were found to be more depressed (Rhodes, Ebert, and Fischer, 1992). The use of instrumental support may have been associated with increased depression because it made the parent feel incompetent in her role as a parent.

Similar results regarding the use of instrumental support by young parents were found in another study. In this study, instrumental aid was provided to teen parents by their maternal grandmothers. The aid was primarily housing for the parent and child care assistance. The study found that when the teen lived with her mother for an extended period there was a less stimulating environment,

lower maternal responsiveness toward the child and decreased child outcomes (Cooley and Unger, 1991).

Although the association between instrumental aid and maternal well-being has mixed results in the previous studies, the use of informational and emotional support appears to be consistently associated with positive maternal effects. Continued support for this hypothesis is found in the Jacobson and Frye study. In 1991, Jacobson and Frye used 46 low-income mothers to evaluate the influence of maternal social support on the development of attachment. The participants were divided into an experimental group and a control group. The experimental group was assigned a home visitor. The home visitor provided the participant with empathy and information on pregnancy, early child care and development. The home visits began monthly after recruitment, increased in intervals toward the time of delivery, continued weekly until the child was 2-3 months in age and than decreased to monthly until the child was one year of age.

Infants of mothers in the experimental groups were rated more securely attached than the control group. The findings provide experimental evidence regarding the importance of social support on infant attachment. The results were irrespective of the child's temperament. The authors suggest that the women in this study responded positively to the study treatment because "they were particularly vulnerable to the lack of social support given their isolation and the number of stressful events occurring in their lives . . . Social support appeared to be necessary in promoting secure attachment at all levels of ego functioning in this sample. Nonetheless, it may be less critical for women with

levels of ego functioning higher than those found here" (Jacobson and Frye, 1991, p. 580).

A similar study was conducted by Boger, Richter, Kernetz and Haas in 1986. In this study, 48 first-time mothers were randomly assigned to treatment and control status prior to entering a perinatal positive parenting program. Twelve treatment and twelve control mothers were placed in subgroups by maternal age, age 23 and younger and age 27 and older. The treatment group received an initial contact in the hospital room by a parent volunteer. This was followed by the parent volunteer giving telephone and home-visitation support during the initial postpartum period. The third component consisted of peer support groups, facilitated by the parent volunteers. Support was primarily emotional and informational. The results of the study found that the treatment parents had significantly better maternal-involvement and child nurturing environments than the control parents at 15 months postpartum. Also, treatment mothers initiated interactions with their infants more often than did the control mothers.

Social Support as it Effects Parenting Within Population Subgroups

The importance of studying social support systems in the context of population subgroups has been stressed by several researchers (Bo, 1994; Dilworth-Anderson and Marshall, 1996; Rohrle and Sommer, 1994; and Vaux, 1988). Comparative research is important because 1) our society is complex and multi-cultural, 2) attitudes, beliefs, and values from subcultures form the macrosystem that filters down into the behaviors carried out in the microsystem of individuals, 3) social support that is not equitably distributed across the

population may be shaped by public policy, 4) ecological niches of our society's subgroups manifest distinct patterns of stressors and support availability, and 5) differences in social support patterns may result in epidemiological variations between sub-populations. Key research samples used for comparative social support research include population subsets that vary in ethnicity, gender, social class and martial status (Bo, 1994; Cochran and Niego, 1995; Dilworth-Anderson and Marshall, 1996 and Vaux, 1988).

Ethnic Subgroups and their Use of Social Support. Researchers have found that social support variations among ethnic groups may be due to past sociohistorical experiences (Dilworth-Anderson and Marshall, 1996). "The specific history of a group helped shape the cultural context in which social support is given" (Dilworth-Anderson and Marshall, 1996, p. 76). For example, Dilworth-Anderson and Marshall (1996) suggest that residual influences from the slave community have made it so a social support system that values survival is still evident today within the African-American subculture. Support comes from within the subgroup to protect the itself, instead of outside the subgroup. Kin are called upon to provide various support, including both emotional support and instrumental support, such as helping with household tasks or parenting. Parenting is considered a community activity, which includes the use of "othermothers" to assist the biological mothers (Dilworth-Anderson and Marshall, 1996). The social support systems of Hispanic families in the United States may be strongly influenced by their migratory history. Many families migrate into the United States from other counties, including Mexico, Puerto Rico, Cuba, and

Central American counties. A migratory lifestyle necessitates that social support come from kin. "These family-centered cultures include a social support system that reflects close and distant kin and the godparents of children in the family" (Dilworth-Anderson and Marshall, 1996, p. 70). Dilworth-Anderson and Marshall (1996) suggest that the family unit in the Hispanic family is responsible for complete support of the family, including emotional, instrumental and material assistance.

Social support in the Asian American family often is characterized by ancient and traditional values for harmony and shame (Dilworth-Anderson and Marshall, 1996). Harmony and shame help preserve a social support system that is family centered and promotes a common sense of giving and receiving help. Social support that promotes unity is valued.

A similar value for unity and harmony is also found in the Native American family (Dilworth-Anderson and Marshall, 1996). A cultural history in discrimination has fostered the need for unity within the subgroup. The extended family is relied on for all types of support.

Social Class and Social Support Systems. Social class can be defined as the family's combination of income, educational level of parents and the status and complexity of the occupations in which the parents engage (Cochran and Niego, 1995). One comparative study of social class and social support involving 1,000 people found that educational level was a strong predictor of social support (Fischer, 1982). "Others things being equal, the more educational credentials respondents had, the more socially active they were, the larger their networks,

the more companionship they reported, the more intimate their relations and the wider the geographic range of their ties. In general, education by itself meant broader, deeper, and richer networks (Fischer, 1982, p. 252).

Fisher also found that household income was a salient predictor of social support. Even with education held constant, people with more income were found to have more non-kin in their social support networks and were more likely to indicate that they had adequate levels of companionship and practical support then were respondents with fewer monetary resources (Fischer 1982).

The effects of poverty and social support levels on parenting are notable. "Poor parents are unable to purchase services (e.g. child care) that reduce stress on child rearing. Perceiving a lack of social support may intensify feelings of hopelessness, which in turn may influence the way poor parents interact with their children. Poor parents who reported few sources of assistance to draw upon in a crisis were especially likely to report that they yelled at or slapped their children 'very often.' Economic deprivation combined with a lack of social support creates a dangerous situation for children" (Smith, 1999, p. 408). __

Marital Status and Social Support Systems. Another important set of subgroups for social support comparative research are households who vary by marital status. According to Vaux, 1988, married couples tend to report higher levels of social support than divorced, widowed, or separated households. Married respondents report having more confidants, larger networks and higher appraisal levels for their social support. Divorced couples report the lowest levels of social support out of all household types (Vaux, 1988).

Household composition is a salient variable in epidemiology studies. Married men and women report being less depressed. This state is probably due to the higher levels of social support in married couples (Vaux, 1988).

Gender Subgroups and Social Support Systems. A final set of population subgroups for social support comparative research is males and females. Studies have found differences in social support systems based on gender to be inconsistent and mixed (Vaux, 1988). There is some evidence to suggest that females may be advantaged in the area of emotional support. This is particularly true in the area of informal support, such as peers. It has been suggested that, in order to determine the true effects of social support systems on gender subgroups, further analysis needs to be done (Vaux, 1988).

Ironically, females tend to be more vulnerable to higher levels of distress and depression than males (Vaux, 1988). This is curious when coupled with the suggested finding that females may have more emotional support. Such variables as societal status, work load and role strain may be contributing factors to higher levels of distress in females.

Summary of Population Subgroups Research. The research has found that structural factors operating through the constructs of ethnicity, culture, class, gender and household composition place constraints on the capacity of parents to build networks that adequately support them in their role of child rearing (Cochran and Niego, 1995). These constraints yield a smaller pool of eligibles from which parents are able to build and maintain personal support networks. "African-American parents, nonethnic White parents, parents with relatively little

education, and parents living in cultures shaped by beliefs that lead to narrow definitions of the women's role, all have smaller pools of potential network counterparts. Constraints accumulate for single parents, who often have less access to relatives, further education, jobs paying a decent salary, and housing in neighborhoods that are supportive of neighboring activities" (Cochran and Niego, 1995, p. 411).

Effects of Diminished Social Support Resources on Parental Functioning.

The literature makes a strong statement that some type of social support is important for positive parental function. So, does the antithesis of this hypothesis also hold true? Do diminished levels of social support promote parental dysfunction or maltreatment? The answer to that question appears to be true. Studies support the hypothesis that diminished social support resources tends to promote parental dysfunction or maltreatment of children. (Burke, Chandy, Dannerbeck and Wilson-Watt, 1998; Garbarino and Crouter, 1978; Garbarino, 1977a; Garbarino, 1977b; Polansky, Gaudin, Jr., Ammons and Davis, 1985; Smith,1999; Thompson, 1995). "The maladaptive behavior of abusing parents is, in part, the result of the absence of stress- and anxiety-reducing mechanisms provided by strong, supportive social networks. Less support creates more anxiety and leads to fewer adaptive responses to stressful situations" (Smith, 1999, p. 407).

Child maltreatment research has suggested that there are several conditions that combine to create an environment for child maltreatment. The conditions are (1) a cultural context that condones domestic violence in general

and violence toward children in particular, (2) families that experience social or economic stress, (3) the parenting "style" of the child's caregivers that is accepting of child maltreatment and (4) child characteristics, which act as a stimulus. The factor that allows these forces to result in abuse is "isolation." (Garbarino and Sherman, 1980; Garbarino1977a; Garbarino1977b; Smith, 1999; Thompson, 1995) Isolation reduces the social supports that are available to the family. It reduces the family's ability to seek assistance from others. It also limits the child's contacts for help.

One study linked maltreatment to the overall balance of stresses and supports in the neighborhood context of families. The likelihood of child maltreatment was hypothesized to vary in direct relation to the availability, adequacy, and use mode of the family's supportive resources in the community. Twenty neighborhoods and 93 census tracts were involved in the study. The study results showed the strongest predictors of child maltreatment were linked to the social supports available in the area (Garbarino and Crouter, 1978).

Polansky, Gaudin, Jr., Ammons and Davis, 1985 conducted a study with 154 neglectful mothers and 154 non-neglectful mothers to examine differences in their social support networks. They wanted to see if the neighborhoods of the neglectful mothers were less caring and inferior in their general quality of life. They also wanted to see if the neglectful parents have less access to helping networks and were more socially isolated. In this study the neglectful mothers reported less social support from informal sources. They felt they had fewer people to ask for practical or emotional support. They reported higher levels of

loneliness then the non-neglectful mothers. They also described their neighborhoods as less friendly and less helpful than the mothers who were non-neglectful. "Neglecting and maltreating mothers, although in much greater need of support than most others parents, are likely to avoid potential sources of help or act in ways that discouraged others from offering help . . .. Individuals in the community are often less responsive to offer help to parents experiencing chronic stress, especially when the conditions are stigmatizing. Parents who are too emotionally fragmented to be effective with their children may be shunned as undeserving by the community. For example, parents whose child rearing falls markedly below accepted norms, as evidenced by neglect, are likely to be distanced by their neighbors and others in the community" (Smith, 1999, p. 408). It would appear that the children of parents who have a history of poor parenting and are isolated by their community are in a very dangerous situation.

Providing Social Support Through Home-Based Parent Education

Because this study investigates social support as provided by a paraprofessional, home visitation, parent education program, relevant research will be presented on the effectiveness of home-based parent education. This section of the literature review provides an examination of the strengths and limitations of paraprofessional home-visitation programs designed to support pregnant women and parents of young children. Paraprofessionals have been defined as "individuals who have not received baccalaureate, post-baccalaureate or professional training, but have practical experience in the community and are familiar with local resources" (Hiatt, Sampson and Baird, 1997, p. 78).

A plethora of programs using the home-visitation style of service delivery to pregnant women and parents of young children has evolved throughout this century (Gomby, Culross, and Behrman, 1999; Olds and Korfmacher, 1997). There are many benefits to the use of home-visitation as a service delivery model. It provides the home visitor an opportunity to see the program recipient in active transactions with people and resources in his or her environment. Information gleaned from viewing such transactions allows the visitor to customize the trajectory of the service to best meet the needs of the parent. This method of program customization and delivery is an especially important mode of resource dissemination for people who are psychologically or geographically isolated and might not obtain services or resources in any other way. Once allowed into the home, visitors can serve as a bridge to other community resources and extra-familial social interactions (Gomby, Culross, and Behrman, 1999; Gomby, Larson, Lewitt and Behrman, 1993).

Although the benefits of home-visitation as a form of social support seem intuitive, they have not always been supported by evidence in the empirical literature. The research that has been conducted has provided mixed results (Gomby, Culross, and Behrman, 1999). Studies showing support of the paraprofessional home-visitation model have associated paraprofessional social support with increased parent-child interaction (Daro and Harding, 1999), maternal parenting efficacy (Duggon, McFarlane, Windham, Rohde, Salkever, Fuddy, Rosenberg, Buchbinder and Sia, 1999); maternal-child attachment (Jacobson and Frye, 1991), child IQ (Blair, Ramey and Harden, 1995; Liaw,

Meisels and Brooks-Gunn, 1995), maternal involvement (Boger, Richter, Hurnetz and Haas, 1986), better prenatal care and fewer pre-term births (Rogers, Peoples-Sheps and Suchindran, 1996). Other studies have not found a strong association between paraprofessional home-visitation support model and parenting outcomes (Barth, 1991; Choi, Berger and Flunn, 1997; Luster, Perlstadt, McKinney, Sims and Juang, 1996; Siegel, Bauman, Schaefer, Saunders and Ingram, 1980; Silver, Ireys, Bauman and Stein, 1997)

One possible reason for this lack of empirical evidence is that home visiting is a method of delivery service that is not homogenous in structure or quality from program to program (Baker, Piotrkowski, and Brooks-Gunn, 1999; Gomby, Culross, and Behrman, 1999). The literature can not make generalizable statements about the effectiveness of a service delivery model that has diverse, often-inadequate designs, implementation styles and evaluation methods. Home-visitation models vary in the experience and background of their staff (professionals, paraprofessionals, volunteers, college students), staff training, program protocol, goals, content, rate and intensity of delivery, clients and rigor of evaluation regimes (Gomby, Culross, and Behrman, 1999; Gomby, Larson, Lewitt, and Behrman, 1993).

Program Design for Home-visitation Social Support

One possible element contributing to the mixed evaluation results found in home-visitation programs might be the program design. An important characteristic of home-visitation programs is the conceptual design of the program (Gomby, Larson, Lewitt and Behrman, 1993; Gray and Wandersman, 1980). A limitation of some home-visitation programs is that they are not based

on a theoretically sound conceptual design. An effective, theoretically sound conceptual design has evolved from trials involving home-visitation programs delivered by professionals (Olds, Henderson, Jr., Kitzman, Eckenrode, Cole, and Tatelbaum, 1999; Olds, Kitzman, Cole and Robinson, 1997). Recently this model was adapted and proposed as a standard for home-visitation programs delivered by paraprofessionals (Hiatt, Sampson and Baird, 1997). Clinical trials on the paraprofessional home-visitation model are currently being conducted in Denver, Colorado (Olds, Henderson, Jr., Kitzman, Eckenrode, Cole, and Tatelbaum, 1999; Olds, Henderson., Jr., Kitzman, Eckenrode, Cole and Tarelbaum, 1998; Olds, Kitzman, Cole and Robinson, 1997).

The model is based on elements from human ecological theory, attachment theory and self-efficacy theory. Human ecological theory is reflected in the elements of person, process and context, as shown in Figure five (Olds, Kitzman, Cole and Robinson, 1997).

The element of "process" in this delivery model encompasses the emotional, informational and instrumental support that a paraprofessional can give to the parent during the home visits. It includes the relationship that forms during the program between the home visitor and the parent, the education that is transmitted, and the goal setting and problem solving processes that occur within the parent and between the parent and others in his or her social network.

The element of "person" includes both the parent and the child. It focuses on the transformations in parents' behavioral and psychological characteristics and outcomes from the child that occur as a result of the home visit. Changes

from the parent's adaptive behavior can resonate outward to more external environments of the parent and child.

The third and final element from the "Person-Process-Context" model is the context. In order to facilitate parental mediation of environmental contexts, the home-visitation program should include partner or kin supports in the program, as much as possible (Olds, Kitzman, Cole and Robinson, 1997). The program should also facilitate the extension of parents' social networks, by creating connections with informal and formal resources.

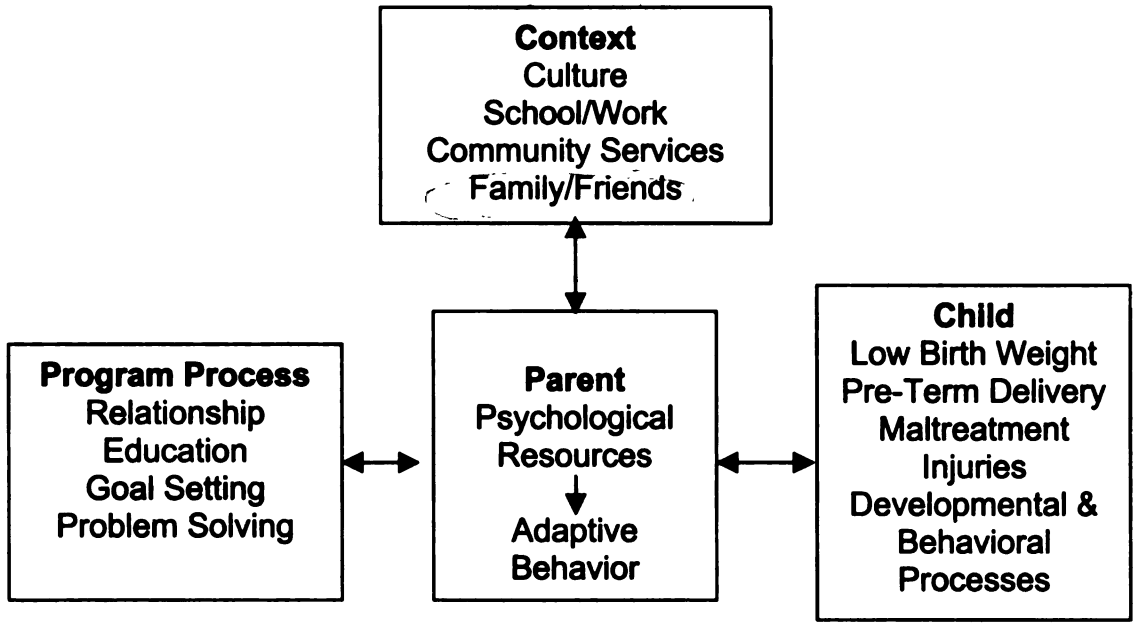

Figure 5. Person-Process-Context Model for Home-visitation Program Delivery. Note: Program influences on pregnancy outcomes, child health and development, and maternal life-course (Olds, Kitzman, Cole, and Robinson 1997)

One of the rationales for testing the efficacy of paraprofessional home-visitation in the Denver trial grew from the hypothesis that the power of the intervention might be enhanced if the visitors were viewed as having attributes similar to the families they serve and if the visitors were viewed as having overcome challenging situations in their own lives (Olds, Kitzman, Cole and Robinson, 1997 p. 18). A close therapeutic alliance between the parent and paraprofessional home visitor helps the parent learn to trust supportive relationships, review his or her own childrearing history and role models a positive relationship that may be replicated between the parent and child (Gomby, Culross, and Behrman, 1999). "By making efforts to maintain a consistently supportive relationship, the home visitor shows the parent that positive caring relationships are possible. The parent begins to see herself as someone who deserves support and attention, and by extension, sees her child as deserving the same" (Olds, Kitzman, Cole and Robinson, 1997, p. 20).

Adherence to the Program Design

Paraprofessional home-visitation programs not only need to have a theoretically sound conceptual design, they also need staff who adhere closely to the program design. Evaluation results of paraprofessional home-visitation programs may be diminished because staff members do not adhere closely to the established protocol of the program (Baker, Piotrkowski, and Brooks-Gunn, 1999; Duggan, McFarlane, Windham, Rohde, Salkever, Fuddy, Rosenberg, Buchbinger and Sia, 1999; Gomby, Culross and Behrman, 1999; Wagner and Clayton, 1999). One analysis of several home-visitation programs found that "programs' curricula are not always delivered with fidelity to the models" (Gomby,

Culross and Behrman, 1999, p. 17). Moreover, the researchers found that many home-visitation programs encouraged home visitors to deviate from the established protocol so that the program could be customized to the individual needs of the client. Such deviations make it difficult to evaluate the program because program recipients may not have received a uniform intervention. It has been posited that "the individualization of service content and delivery inherent in home visiting programs may make it hard to see differences across a whole group, because, in fact, the group is not getting the same treatment" (Gomby, 1999, p. 42).

Paraprofessional Instruction versus Professional Instruction

Another variable that may contribute to implementation challenges and effect evaluation results is staffing. Home visiting programs are still wrestling with questions regarding the amount of experience, training and supervision that staff need in order to implement an effective home visiting program. Very little research has been conducted comparing the effectiveness of paraprofessional versus professional instructors in home-based parent education programs. This lack of empirical evidence has led "most researchers to believe that it is not possible at this time to conclude that individuals from a particular professional or educational discipline are better home visitors than others, but it seems likely that extremely well-trained visitors are needed to serve families that face multiple complex issues. . . . No matter what their skill level, close supervision is needed to help home visitors deal with the emotional stresses of the job and maintain

objectivity, prevent drift from program protocols, and provide an opportunity for reflection and professional growth" (Gomby, Culross and Behrman, 1999, p. 18).

Program Recipients

Studies show that paraprofessional home-visitation programs are most effective with subgroups of parents (Gomby, Culross and Behrman, 1999). Paraprofessional home-visitation programs appear to be most effective with those parents who have some risk factors, such as being young, socially isolated, economically disadvantaged, inexperienced with parenting or limited in education (Brooks-Gunn, Gross, Kraemer, Spiker and Shapiro, 1992; Jacobson and Frye 1991; Olds, Henderson, Jr., Kitzman, Eckenrode, Cole, and Tatelbaum, 1999; Olds and Kitzman, 1993). "This might be because home visiting services help place a supportive floor underneath the neediest families, or because those families feel the strongest need and motivation to change. Or perhaps the area in which home visiting programs' effects can be observed most easily is among the group that is the neediest because that group has the most room for improvement" (Gomby, Culross, and Behrman, 1999, p. 21).

Paraprofessional home-visitation models also seem to be effective with recipients who have requested services (Gomby, Larson, Lewitt and Behrman, 1993; Osofsky, Culp and Ware, 1988). It has been less effective with parents who feel they either do not want or need the services after they become involved in the program. "Intervention participants may not passively receive what is given or served, rather, they may actively interact in a variety of ways and at different levels with the intervention staff and activities. In addition, participants'

level of activity affects their development and intervention outcomes" (Liaw, Meisels and Brooks-Gunn, 1995, p. 408).

A study of 130 adolescent mothers compared the outcomes of program participants who were actively involved in a program with those who did not become actively involved with it (Osofsky, Culp and Ware, 1988). The purpose of the study was to examine the effects of social support on parenting behaviors and child outcomes. Analysis was conducted by dividing the participants into two groups. One group included the participants that were activity involved in the program by keeping appointments and following through on program goals and activities (takers). The second group consisted of those participants who were not activity involved in the program (non-takers).

Analysis was conducted on the "takers" and "nontakers". At thirteen months of age significant differences were found on the Bayley Mental Scale, feeding interactions and on maternal play. The "takers" scored higher than the "nontakers" on each of these variables. At thirty-six months highly significant differences were found on five out of the six areas in the HOME scale.

A large study of families of low birth weight and premature infants also focused on the parents' level of participation. In this study 985 families of low birth weight and premature infants participated in a clinical trial to look at the effects of early intervention on intellectual development of low birth weight, premature infants (Blair, Ramey and Harden, 1995; Brooks-Gunn, Gross, Kraemer, Spiker and Shapiro, 1992; Liaw, Meisels and Brooks-Gunn, 1995). Infants were randomly assigned to an intervention group (n=377) and a control

group (n=608). The control group received periodic assessments and referrals. The intervention group received the assessments and referrals, plus a home-visitation program and the opportunity to participate in a child development center and parent support group meetings.

Analysis was conducted on the parents' level of involvement (high, medium, low) and child IQ scores (Blair, Ramey, and Harden, 1995). Research results showed that at 24 and 36 months, higher mental development index and IQ were associated with higher levels of participation in the program. The parents' level of active participation continued to make more significant contributions to both child IQ and the HOME scores at age 3 (Liaw, Meisels, and Brooks-Gunn, 1995).

Although paraprofessional home-visitation programs have been found to be effective with high-risk families who need and want prevention services, they have not shown as much effectiveness with families who are already involved in multiple and complex high-risk behaviors and are in need of professional intervention services (Barth, 1991; Choi, Berger and Flynn, 1997; Olds and Kitzman, 1993). A study of 154 families involved with Child Protective Services or the Permanency Planning Unit of the Department of Social Services illustrates the limitations of using paraprofessionals to meet the meets of families experiencing severe problems.

The purpose of the study was to determine the influence of volunteer parent-aid home visits on the ability of children to remain with their parents instead of being placed in foster care (Choi, Berger and Flynn, 1997). Parents

involved in the study were asked to choose if they would like to have the services of a parent-aid (n=83) or choose to not receive this service (n=71). Parent-aids made weekly (or more frequent) home visits to the parents for a mean of 18 months. No curriculum was used during the home visits. The purpose of the visits was to provide emotional and instrumental support.

Results of the study indicated that the parents who received home visits did not have significantly different outcomes than the control group. Multivariate analysis showed that the most powerful predictors of program outcomes were the variables of substance abuse, followed by the amount of contact with case planners.

Another recent study looked at the use of the paraprofessional home-visitation model with multi-problem families. This study of 191 women looked at the effects of social support on child abuse rates (Barth, 1991). All of the women in the study were at risk of child abuse. Participants were randomly assigned to a treatment or control group. The control group received an assessment and referrals to community service. The treatment group received "CPEP" services, consisting of twice monthly home visits by a paraprofessional for six months. The home visits focused on the identification and completion of goals. It also included instrumental assistance, such as help with transportation or child care.

Results of the study showed no advantages on self-report measures for the treatment or on follow-up reports of child abuse. "Paraprofessional services like CPEP appear not to be designed for unilateral intervention on behalf of highly distressed families. Paraprofessionals may be overmatched by the

multiple problems of families. The results support the provision of CEPEP types of services for families that have not already begun destructive patterns of interaction with their children." (Barth, 1991, p. 372).

The literature has provided much empirical evidence supporting the hypothesis that paraprofessional home-visitation programs do not benefit all families equally. As identified earlier, home visiting programs appear to benefit subgroups of families with varying characteristics. "Existing research does not enable conclusions about which families are best suited to which home visiting models or which are best suited to home visiting versus some other service-delivery strategy. Research does however, clearly suggest that programs will not produce benefits across the whole population of families with young children. (Gomby, Culross, and Behrman, 1999, p. 21).

Frequency, Duration and Intensity of Program Delivery

A meta-analysis from thirty-nine studies was conducted to determine the effectiveness of home-based programs (Hattie, Sharpley and Rogers, 1984). The results of the study showed that one of the key variables in determining the effectiveness for either paraprofessionals or professionals was the duration of the program, number of sessions and the total hours of contact. The longer, more frequent and more intense the sessions, the greater the program effect. More recent studies have added support to the proposition that program length, duration and intensity are positively related to program effectiveness (Baker, Piotrkowski and Brooks-Gunn, 1999; Duggan, McFarlane, Windham, Rohde, Salkever, Fuddy, Rosenberg, Buchbinder and Sia, 1999; Gomby, 1999; Gomby,

Culross, and Behrman, 1999; Gomby, Larson, Lewitt, and Behrman, 1993; National Committee to Prevent Child Abuse, 1992; Wagner and Clayton, 1999).

The influence of intensity, length and duration of home-visitation services is illustrated in a study of 6,514 pregnant teens (Rogers, Peoples-Sheps and Suchindran, 1996). The study was conducted to evaluate the impact of a paraprofessional home-visitation program on prenatal care use, lower birth weight and pre-term births. The treatment group (n=1,901) was pregnant teens who agreed to participate in the social support program. A comparison group was pregnant teens in neighboring counties (n=4,613) who did not have access to the program.

The treatment group received home visits monthly throughout the pregnancy, at the hospital during delivery and then regularly during the first year. Each visit was structured with educational lessons and assistance with community services.

Results of this study showed that a higher number of teens in the treatment group initiated prenatal care early in the pregnancy, had adequate prenatal care and fewer pre-term births. The study did not find an effect on rates of low birth weight. The authors suggest that the home visits were not intense enough to create the behavioral changes needed to affect birth weight. Yet, the length and frequency of the visits prior to the delivery were enough to impact the outcome variables of prenatal care and term of delivery. These findings seem to imply that all three variables of frequency, duration and intensity need to be at

adequate levels to have an influence on different program outcomes. This phenomenon is known as the dosage effect.

There is a lack of research determining the minimum number of home visits needed to effect change in parents of young children. "Although no studies have been conducted to demonstrate the minimum number of home visits necessary before change can occur, it seems intuitively reasonable that some threshold number of visits must be crossed before change can occur and that too few visits will hamper the formation of the relationship between home visitor and parent and result in spotty coverage of the program's curriculum. While precise minimum threshold is unknown, some researchers have speculated that four visits or three to six months of services may be required before change can occur" (Gomby, Culross, and Behrman, 1999, p. 16). Other studies have shown that a minimum of six to eighteen months of high intensity services are needed to change attitudes and strengthen parenting (National Research Council, 1993; Whipple, 1999; Whipple and Wilson, 1996). It appears that short-term, low-intensity programs are not sufficient by themselves to change long-term parental behaviors.

Two recent studies demonstrated the need for adequate dosage in services designed to create changes in parental behavior (Whipple, 1999; Whipple and Wilson, 1996). These studies found that services were more effective when the parents receive four contacts per week over a period of 15 to 24 months. These rates of intensity and duration were found to contribute to

changes in parents' level of depression, stress, parenting ability and conflict resolution skills (Whipple 1999; Whipple and Wilson, 1996).

Family Involvement and Retention

The issue of program involvement is a prevailing challenge within home-visitation programs. It has been suggested that recipients of home-visitation program receive an average of about half the number of visits recommended in the program protocol (Gomby, Culross, and Behrman, 1999). "The low levels of involvement may reflect a lack of interest on the part of families, the chaotic nature of some families' lives or their inability to juggle time commitments between their home visiting programs and their responsibilities to work, extended family, and children. Whatever the cause, once an appointment is missed, home visitors with tight caseloads may find that they are unable to reschedule a visit until the next regular appointment time rolls around, with the consequence that families receive less intensive services than planned" (Gomby, Culross, and Behrman, 1999, p. 15). Ultimately, low program involvement may mean fewer benefits to the family.

Evaluation Issues

During the last decade a few paraprofessional home-visitation programs have begun to use true experimental designs for their research studies. These rigorous evaluation studies have not consistently shown evidence supporting the use of a paraprofessional home-visitation program. One possible reason for this lack of empirical support is a masking of the treatment effect, by using control groups that were actually receiving some type of treatment (Silver, Ireys, Bauman, and Stein, 1997).

A study of 365 low-income mothers of five to eight year old children illustrates the problem of a control group receiving treatment (Silver, Ireys, Bauman, and Stein, 1997). The purpose of this study was to show the effects of a social support program on maternal variables of psychiatric well-being. The mothers were randomly assigned to a treatment group (n=174) and a control group (n=169). The treatment group was expected to receive at least six home visits from a paraprofessional during a 12 month period and at least bi-weekly telephone calls. However, few of the mothers actually received all six home visits. The mean number was three visits. The purpose of the visits was to share information on child development and accessing community resources and provide emotional support. No specific curriculum was used. The control group received assessments at program entry, six months, twelve months and eighteen months into the program.

The results of the study found no significant differences between the groups on a psychiatric symptom index or its sub-scales. Further analysis showed that the experimental group had more baseline symptoms. The treatment group's progress was significantly greater, relative to their initial status. Overall, the program effects were minimal.

The strengths of this study were the large sample sizes, the random selection and the ecological orientation to the program. The limitation was that the visits were so minimal in number that a relationship between the visitor and parent may not have had time to form. In actuality, the control group may have received a comparable number of visits through the assessment schedule and

have received similar benefits to the treatment group. "In examining mothers' evaluative comments in the final research interview (six months posttermination of the intervention), we noticed that many control group mothers, as well as those in the experimental group, said they felt that participating in the research itself (as distinct from the intervention) had been helpful because it allowed them to express their feelings about their children's illnesses and showed that someone cared about their experiences and opinions. Their statements suggested that being a part of the study itself could have had some unintended beneficial effects that may have masked some of the intervention's impact. Thus, participating in the research interview may have mimicked a low-dose support intervention" (Silver, Ireys, Bauman, and Stein, 1997, p. 262).

A similar masking of treatment effect may have also happened in another study. The purpose of this study was to examine the effects of a fairly intensive family support program on the quality of care teen parents provide for their children and look at mediating factors for parental care (Luster, Perlstadt, McKinney, Sims and Juang, 1996). Eighty teen parents were randomly assigned to a home visited group (n=43) and a standard program comparison group (n=40).

All of the teen parents were interviewed during the prenatal period, at six months postpartum and twelve months postpartum. The comparison group received the assessment and assistance and information, primarily over the telephone and through the mail. The home visited group received the assessments and weekly home visits by a paraprofessional family advocate for

over a year. The home visits provided the parents with emotional support, access to community resources, information about child development and care, and goal-setting information. In order to conduct the home visits, family advocates received three months of training and ongoing supervision.

The results of the study showed a significant main effect on the HOME score for the home visited group and a significant main effect on ethnicity. The African American teen parents in the home visited group scored higher than the comparison group. There was also a significant main effect on two of the subscales. The home visited group had higher scores on emotional and verbal responsibility and maternal involvement. Significant effects were not found on maternal psychological well-being.

One reason why the program effects for the home visited group may not have been large in magnitude is because the comparison group received a lot of assistance. Similar to the previous study, participants in both groups expressed satisfaction in their program and may have gained from the services.

Literature Review Conclusions

This review of literature summarized the current research base for the variable of social support as a global construct impacting parenting behaviors and paraprofessional home-visitation as a specific form of social support. Although a substantial amount of research has provided evidence in support of an overall positive relationship between social support and supportive parenting behaviors, there is much more research needed to determine the type of social support needed to benefit diverse family situations. In this case, the research

remains unclear regarding what form of social support facilitates optimal parenting behaviors in limited resource parents of young children.

CHAPTER III

METHODS

This chapter describes the methodology of this study. Six sections are included in this chapter: (1) Research Design, (2) Research Collection Procedures, (3) Research Sample, (4) Instrumentation, (5) Data Analysis, and (6) Ethical Considerations.

Research Design

This research project used a two-group pretest, posttest design. The two groups included a treatment and comparison group, each consisting of a nonrandom, convenience sample. Ethical considerations prohibited this study from using random selection. Some parents involved in the treatment being utilized in this study had a court-mandated need for the intervention. These circumstances dictated that parents complete the treatment program as soon as it was logistically possible.

Participants in both the treatment group and the comparison group completed a battery of pretests to determine initial scores on parenting behaviors and social support levels. Treatment group parents then participated in the BSF program for a period of 8 to 14 weeks. The mean number of sessions was 10.25. Comparison group parents did not participate in any type of intervention during this period. At the completion of the BSF program participants in both the treatment group and comparison group completed a battery of posttests to determine changes in parenting behaviors and social support levels. The research design is diagrammed in Figure six.

2-Group Pretest, Posttest Research Design

GROUP	PRETEST	INTERVENTION	POSTTEST
Treatment	X	X	X
Comparison	X		X

Figure 6. Research Design.

Data Collection Procedures

Counties were invited to participate in the study in January 1999. Letters of invitation were sent to twenty-three BSF home-visitation programs in Michigan. A copy of the letter of invitation is in Appendix A. Six programs agreed to participate in the study by sending a letter of acceptance to the investigator. A follow-up letter was sent to all programs that indicated an interest in becoming involved in the study. The follow-up letter contained information regarding the intent of the study and details of the procedure. It also invited them to a training meeting. A copy of the follow-up letter is included in Appendix B.

The investigator met with the staff of the participating programs at a training meeting on January 14, 1999. During this meeting the study protocol was explained to the program staff and all paraprofessionals were instructed on the use of the instruments. The program staff and paraprofessionals were not apprised of the specific hypotheses being investigated in this study. This information was omitted to help reduce evaluator bias during data collection. Data collection took place between February 1, 1999 and January 30, 2000.

Initial data collection occurred on the first visit with the family. During this visit the parenting instructor introduced the project to the parent and received permission to collect data. After permission had been received and a signed consent form had been obtained, each parent then was given an identification number. The identification number was used as the only identifier on all data collection instruments, so that the data was kept confidential.

Parents in the treatment group completed the intake form, Family Social Support Survey and Parenting Behavior Assessment at the initial visit, prior to the delivery of the program. All of these instruments were completed through instructor interviews. The intake form asked the parent to report on a variety of variables related to the parent's demographics. This form contained such items as parents' and children's gender and ages, family composition, ethnicity, residence, household income and education. This form took approximately 5 to 10 minutes to complete.

When completing the Family Social Support Survey the instructor would read the parent the instructions at the top of the form and then ask the parent to indicate the level of the helpfulness of each social support item on the form. The instructor circled the parent's indicated level of helpfulness on the form. If a social support item was not available to the parent, the instructor would simply circle the letters NA to indicate that response. Parenting instructors were allowed to clarify any social support item by giving examples of people or services that would fall into a category, however they were not permitted to give comments

that may influence the parent's responses. The Family Social Support Survey took approximately 10 minutes for parents to complete.

To complete the Parenting Behavior Assessment parents were asked to think of one of their children and tell the instructor the age of that child. The child's age was recorded at the top of the Parenting Behavior Assessment form. The parent was then asked to respond to items on the assessment with just that child in mind. This helped the parent respond to parenting behavior items without having to think about behaviors for children of different ages and temperaments.

Next the parent was given five envelopes with each envelope representing one of the following responses: "like me-always", "like me-often", "like me-sometimes", "like me-seldom", and "like me-never." During the assessment parents were given 32 cards with one parenting behavior printed on each card. Parents placed each of the cards in the envelope that most closely represented the parents' perception of the frequency at which he or she performs each parenting behavior. After the parent had placed all 32 cards in one of the five envelopes, the tops of the envelopes were folded over and given to the instructor. The instructor took the envelopes back to the office to score the activity. All the behavior cards placed in the envelope labeled "never" were coded as a one. The behaviors found in the envelope labeled "seldom" were coded as a two. The scores of three and four were given to the behaviors in the envelopes labeled "sometimes" and "often", respectively. Scores of five were given to all the behaviors in the envelope labeled "always." The Parenting

Behavior Assessment took approximately 20 minutes to complete. The entire pretesting process was typically completed in 40 minutes.

During the initial visit the instructors were also asked to observe or ask questions about forty-five parenting behaviors listed on the HOME Inventory. The majority of the parenting behaviors on the HOME Inventory could be observed during the visit. A few of the items needed to be asked of the parent. Examples of the items that needed to be asked of the parent included, "Is the child taken regularly to the doctor's office or clinic?" and "Is the child taken to the grocery store at least once a week?" The types of behaviors the instructor was asked to observe fell into the categories of emotional and verbal responsively, acceptance of the child's behavior, organization of the environment, provision of play materials, parental involvement with the child and opportunities for variety. The instructors' observations were recorded on the HOME Inventory form immediately after the visit.

After the completion of the pretests, instructors began the BSF program with the parents in the treatment group. During weekly home visits, instructors would provide information and support to the parent in the areas of child development, positive discipline, parent-child interaction and parental goal-setting and problem-solving. The program would last a mean number of 10.25 weeks. However the actual number of weeks would vary from parent to parent. The range for program length had a minimum of 8 weeks and a maximum of 14 weeks.

At the conclusion of the program parents were asked to complete the Family Social Support Survey and the Parenting Behavior Assessment a second time, using the same protocol as was used on the initial visit. Instructors were also asked to observe the parent's behavior and ask the questions needed to complete the HOME Inventory. Immediately after the final visit instructors would record their observations for the HOME Inventory.

The comparison group for this research project was parents in the six participating counties who were eligible to participate in the BSF program, but were not currently involved in it. Many of these parents were already on waiting lists to become involved in the BSF program during the time frame of the research project.

BSF instructors collected the data from the comparison group parents. The initial data collection served as an introduction to the program, allowing the BSF instructor to become acquainted with the parent. The protocol for data collection was similar to the treatment group. At the initial visit the instructor obtained a signed consent form, assigned the parent an identification number and collected the pretest data for the intake form, Family Social Support Survey and the Parenting Behavior Assessment. Instructors would also make the observations and ask the questions necessary to complete the HOME instrument. Approximately 8 to 12 weeks later, the BSF instructor collected the data a second time. Immediately following the second data collection, the instructor began program delivery.

All parents involved in the research project received a $10.00 gift certificate to a local department store. The intended sample size consisted of 60 families in both the treatment and the comparison group. Each group was over-sampled to help counteract the effect of program attrition. The actual number of parents recruited for the treatment group was 72 parents and the number of parents recruited for the comparison group was 66 parents. Power analysis recommends a sample size of at least 50 for an alpha of .05 and a moderate effect size of .8 (Pecora, Fraser, Nelson, McCrosky and Meezan, 1995).

Research Sample

The unit of analysis for this study was parents of young children. The population for the treatment group was all of the parents participating in the Michigan State University BSF program. BSF is a home-visitation, parent education program that is coordinated by Michigan State University Extension. Michigan State University is a land grant university in East Lansing, MI.

In January 1999 there were 23 BSF programs that were coordinated by Michigan State University Extension. All the programs in Michigan were invited to participate in this research study. Six of the programs elected to participate in the research. The participating counties were Clinton County, Ingham County, Jackson County, Huron County, Sanilac County and VanBuren County. These counties are located in a mixture of rural and urban areas in Michigan.

Between February 1, 1999 and May 1, 1999, the six participating programs invited all new enrollees in the BSF program to become part of this research study. Ninety-five parents of young children were invited to participate

in the study. Seventy-one of the parents agreed to become involved. This is 75% of the sample (n=71).

Comparisons of Key Demographic Variables for BSF Enrollees Who Participated in the Research Project and Enrollees Who Declined to Participate

Comparisons were made between the Building Strong Family enrollees who agreed to participate in the research and the enrollees who declined to participate. Independent t-tests were conducted for the ratio demographic variables. Specifically, independent t-tests were conducted for the variables of education, mother's age, father's age and number of children in the family.

Independent t-tests determined that equal variances were assumed for the variables of participant's education (t=.047, p=.963), mother's age (t=-1.257, p=.221) and number of children (t=.324, p=.747). One ratio variable was significantly different at the .05 level of probability. Statistically significant differences were found in the variable of father's age (t=-2.958, p=.005). In general, male BSF enrollees who declined participation in the research were older. The paternal age for those enrollees who did not choose to participate in the research was 31.70, whereas the male BSF enrollees who agreed to become involved in the study were a mean age of 25.3 years.

Chi-square computations were conducted to determine group equivalency for the categorical variables. This included the variables of ethnicity, gender, household composition, gender and income. Results from the Pearson Chi Square showed that the groups were equivalent for the variables of ethnicity (p=.222), residence (p=.698), and gender (p=.716). Statistically significant differences were found for the variables of household composition (p=.031) and

income (p=.017). BSF enrollees who declined to participate in the research tended to be from single parent households (57.1%) and reported earning $800.00 or less a month (68.4%). In comparison, BSF enrollees who agreed to participate in the research had 22.6% of families who were from single parent households and 40% of families reported earning $800.00 or less a month.

Treatment Group Demographics

Analysis was conducted on key demographic variables for BSF enrollees who agreed to participate in the research project. Means and standard deviations were computed for all the interval and ratio variables. Table 1 shows the descriptive statistics for maternal and paternal age, education and number of children.

The maternal age of parents in the treatment group ranged from 15 years to 38 years, with a mean age of 22.7 years. The standard deviation for maternal age was 4.9 years. Twenty-six percent of the mothers in the treatment group were under the age of twenty (n=16). The other 74% of mothers were between 20 and 38 years of age (n=47).

Fathers in the treatment group were slightly older in age, in comparison to mothers. The mean age of fathers was 25.3 years, with a range from 17 to 48 years. The standard deviation for paternal age was 5.9 years. Nine percent of fathers were under 20 years of age (n=1). The other 91% of the males were aged 20 years or older (n=7).

The mean educational attainment for the parents in the treatment group was 11.6 years of education (SD=1.95). The last grade completed by parents

ranged from 8th grade to college graduate. Thirty-nine percent of the parents did not have a high school diploma (n=28). The other 61% had a 12th grade education or higher (n=43).

The mean number of children within families was 1.7 (SD=1.1). Number of children ranged from one child to six children in the family. The largest percentage of parents had one child (62%, n=44).

Table 1: Demographic Characteristics of All Parents

VARIABLE	RESEARCH PARTICIPANTS	COMPARISON GROUP PARTICIPANTS	T VALUE AND P
Total Number	71	69	
Maternal Age:			
Mean	22.7 years	25.4 years	
Standard	4.9 years	5.6 years	-3.27 (.001)
Deviation	15 years	16 years	
Minimum	38 years	40 years	
Maximum			
Paternal Age:			
Mean	25.3 years	29 years	
Standard	5.9 years	8.4 years	-3.17 (.002)
Deviation	17 years	20 years	
Minimum	48 years	43 years	
Maximum			
Last Grade Completed:			
Mean	11.6 years	11.7 years	-.45 (.656)
Standard	1.95 years	1.4 years	
Deviation	8 years	9 years	
Minimum	20 years	18 years	
Maximum			
Number of Children:			
Mean	1.7 children	2.5 children	-3.60
Standard	1.1	1	(.0005)
Deviation	1 child	1 child	
Minimum	6 children	5 children	
Maximum			

Percentages and frequencies were computed for all the categorical variables. Categorical variables for this study included gender, residence, household composition, income and ethnicity. These descriptive statistics are reported on Table 2.

A majority of the participants in the treatment group were female (89%, n=63). Eleven percent of the parents in the treatment group were males. The frequency for males was 8 parents.

The geographic location of participants reflected a mixture of rural and urban residents. Fifty-four percent of parents in the treatment group lived in a rural area (n=38). Forty-six percent of the treatment group parents lived in an urban area in Michigan (n=33).

The dominant types of household composition were two-parent households (62%, n=44) and single-parent households (22%, n=16). Other parents in the treatment group indicated that they lived in extended family households (16%, n=11).

The majority of the treatment group parents earned less than $1,000 a month (69%, n=49). The modal income level was $800.00 or less a month (40%, n=28). Twenty-nine percent of parents indicated that they earned between $801 and $1,000 a month (n=21). Ten percent earned between $1,001 and $1,200 (n=7). The 21% of participants earned over $1,200 a month (n=15).

Treatment group parents identified themselves as from a variety of ethnic groups. Seventy-three percent of the participants were Caucasian (n=52). Eleven percent of the participants were African-American (n=8), seven percent were Hispanic (n=5), seven percent were Asian (n=5) and the final two percent of participants identified themselves as "multi-cultural"(n=1).

Table 2: Demographic Characteristics of All Parents

VARIABLE	RESEARCH PARTICIPANTS		COMPARISON GROUP PARTICIPANTS		(P) PEARSON CHI SQUARE
	%	N	%	N	
Gender:					
Female	89%	63	61%	42	.0005
Male	11%	8	39%	27	
Residence:					
Rural	54%	38	55%	38	.523
Urban	46%	33	45%	31	
Household composition:	22%	16	31%	21	
Single Parent	62%	44	63%	43	.255
Two-Parent	16%	11	6%	5	
Extended Family					
Monthly Income:					
$800 or less	40%	28	48%	33	
$801-$1,000	29%	21	31%	21	.078
$1,001-1,200	10%	7	15%	10	
1,201 or more	21%	15	6%	5	
Ethnicity:					
Caucasian	73%	52	73%	50	
African-American	11%	8	15%	10	.039
Hispanic	7%	5	12%	9	
Asian	7%	5	0%	0	
Multi-Cultural	2%	1	0%	0	

Comparison Group Demographics:

Sixty-nine parents agreed to become part of the comparison group for this research study. Analysis was conducted on key demographic variables for parents in the comparison group (See Tables 1 and 2). Table 1 shows the means and standard deviations of the comparison group for all interval and ratio demographic variables. The mean maternal age of comparison group participants was 25.4 years (SD=5.6). The range of ages for mothers was 16

years to 40 years. Five percent of the female participants in the comparison group were under the age of 20 (n=3). The rest of the female participants in the comparison group were over 20 years of age (n=39).

The mean age of fathers in the comparison group was 29 years (SD=8.4). The range of ages for males was 20 years to 43 years of age. There were not any male participants in the comparison group who were teenage parents. All of the males in this group were over 20 years of age (n=27).

The mean educational level of comparison group participants was 11.7 years of education (SD=1.4). The range of education for the comparison group participants was a minimum of 9 years of education to a maximum of 18 years of education. Twenty-six percent of the comparison group participants did not have a high school diploma (n=18). The other 74% of the participants in the comparison group had a high school diploma or higher (n=51).

The mean number of children in the homes of comparison group parents was 2.5 (SD=1). The range of number of children in the homes of comparison group participants varied from one child to five children. About half of the comparison group participants had one or two children in the home (54%, n=37). The other comparison group participants had three or four children (46%, n=32).

Table 2 shows the comparison group's percentages and frequencies for all the categorical demographic variables. The comparison group parents had a mixture of males and females in the sample. Sixty-one percent of the comparison group participants were female (n=42). Thirty-nine percent were

males (n=27). This is different from the treatment group sample where 89% of the participants were females.

A slight majority of the comparison group parents lived in rural areas (55%, n=38). Forty-five percent of the parents lived in urban areas (n=31). This mix of rural and urban parents is reflective of the geographic balance of the counties that participated in the study.

Similar to the treatment group parents, the majority of parents lived in two-parent families (63%, n=43). Other household composition styles represented in the sample included single parent homes (31%, n=21) and extended family homes (6%, n=5).

Seventy-nine percent of the comparison group parents indicated that they earned less than $1,000 per month (n=54). This was a slightly higher percentage of parents than the treatment group. Sixty-nine percent of the treatment group parents earned less than $1,000 per month (n=49). The other twenty-one percent of comparison group parents earned $1,001 or more a month (n=15).

Seventy-three percent of the parents in the comparison group identified themselves as Caucasian (n=50). Fifteen percent of the comparison group parents identified themselves as African-American (n=10) and 12% of the comparison group parents identified themselves as Hispanic (n=9). None of the comparison group parents identified themselves as Asian or "multi-cultural".

Comparisons of Key Demographic Variables for All Parents in the Treatment Group and All Parents in the Comparison Group

Independent t-tests were conducted to determine the equivalency between the treatment group and the comparison group. Independent t-tests were computed for each of the ratio demographic variables. Results of the independent t-tests are shown on Table 1.

Analysis from the independent t-tests showed equivalency at the .05 level of probability for education (t=-.45, p=.656). Mother's age (t=-3.27, p=.001), father's age (t=-3.17, p=.002), and number of children in the household (t=-3.60, p=.0005) did not show equivalency between the treatment group participants and the comparison group participants.

In general, participants in the comparison group tended to be slightly older than participants in the comparison group. The mean maternal age for participants in the treatment group was 22.69 and the mean maternal age for comparison group parents was 25.4. Similarly, the mean paternal age for treatment group parents was 25.3 and the mean paternal age for parents in the comparison group was 29.47. Moreover, there tended to be a slightly higher number of children in the control group in comparison to the number of children in families involved in the treatment group. The mean number of children in the treatment group was 1.71 and the mean number of children in the comparison group was 2.5.

Chi-square analyses were computed to determine group equivalency for the categorical variables. Results from the Pearson Chi Square showed that the groups were equivalent for the variables of household composition (p=.255),

income (p=.078) and residence (p=.523). Statistically significant differences were found for the variables of gender (p=.0005) and ethnicity (p=.039).

In the area of gender, more males were participants in the comparison group, than were involved in the treatment group. Thirty-nine percent of the participants in the comparison group were males (n=27), whereas 11% of the participants in the research group were males (n=8). The difference in the gender of the participants may be due to attrition of people who leave the waiting list, in comparison to the parents who actually become involved and complete a home-visitation parenting program.

The other difference between the treatment group and the comparison group was in the area of ethnicity. The treatment group had a mixture of Caucasian, African American, Hispanic, Asian and Multi-Cultural participants in the study, whereas the minority participants in the comparison group were solely Caucasian, Hispanic and African-American participants, without any Asian and multi-cultural participants. The number of Caucasian participants was comparable between the two groups (treatment group-73%, n=52; comparison group-73%, n=50).

Analysis of Key Demographic Variables for Treatment Group Parents who Completed the Research Project and Those Who Dropped Out of the Study

Sixty-three parents completed the BSF program and stayed with the research project throughout the course of the program. This was 89% of the original 71 parents who agreed to participate in the study. The attrition rate 11% for parents involved in the treatment group. A series of independent t-tests were

conducted to determine if the treatment group parents who did not complete the research project were different from the parents who completed it. Independent t-tests were conducted for each for each of the ratio demographic variables. Results of the independent t-tests showed that the parents who did not complete the study were similar to the parents who stayed with the project in the variables of education (t=-.29, p= .779), number of children (t=-.01, p= .991), mothers' age (t=-.18, p=.860), fathers' age (t=.00, p=.996). There were not any ratio variables that were significantly different in group means.

Chi Square analyses were conducted for the categorical variables. These computations showed equivalency in group means for household composition (p=.635), income (p=.078), gender (p=.316), residence (p=.135) and ethnicity (p=.329). There were not any categorical variables that were significantly different in group means.

Demographics of Treatment Group Parents who Completed the Study

Analysis was conducted on key demographic variables for treatment group parents who completed the research project. Means and standard deviations were computed for all the interval and ratio variables. Table 3 shows the descriptive statistics for age, education and number of children.

The maternal age of treatment group parents who completed the research study ranged from 15 years to 38 years, with a mean age of 22.65 years. The standard deviation for maternal age was 5.04 years. The mean age of males in the treatment group who completed the study was 25.18 years, with a range from 17 to 48 years. The standard deviation for paternal age was 5.09 years.

The mean educational attainment for the treatment group parents who completed the study was 11.63 years of education. The standard deviation was 2.03 years. Educational attainment ranged from 8 years of education to 20 years.

The mean number of children within participants' household was 1.71. The standard deviation was 1.17. Number of children ranged from a minimum of one child in the family to a maximum of 6 children.

Table 3: Demographic Characteristics of Parents who Completed the Study

VARIABLE	RESEARCH PARTICIPANTS	COMPARISON GROUP PARTICIPANTS	T VALUE AND (P)
Total Number	63	60	
Maternal Age:			
Mean	22.65 years	26.09 years	
Standard	5.04 years	5.21 years	-3.426 (.001)
Deviation	15 years	18 years	
Minimum	38 years	40 years	
Maximum			
Paternal Age:			
Mean	25.18 years	29.48 years	
Standard	5.09 years	6.92 years	-2.996 (.004)
Deviation	17 years	20 years	
Minimum	48 years	43 years	
Maximum			
Last Grade Completed:			
Mean	11.63 years	11.98 years	
Standard	2.03 years	1.22 years	-1.988 (.279)
Deviation	8 years	9 years	
Minimum	20 years	18 years	
Maximum			
Number of Children:			
Mean	1.71 children	2.54 children	
Standard	1.17	1.02	-3.910
Deviation	1 child	1 child	(.0005)
Minimum	6 children	5 children	
Maximum			

Percentages and frequencies were computed for all the categorical demographics of treatment group parents who completed the study. Categorical variables for this study included gender, residence, household composition, income and ethnicity. These descriptive statistics are reported on Table 4.

Table 4: Demographic Characteristics of Parents who Completed the Study

VARIABLE	RESEARCH PARTICIPANTS		COMPARISON GROUP PARTICIPANTS		(P) PEARSON CHI SQUARE
	%	N	%	N	
Gender:					
Female	87%	55	61%	37	.002
Male	13%	8	39%	23	
Residence:					.246
Rural	58%	36	50%	30	
Urban	42%	27	50%	30	
Household Composition:	25%	16	20%	12	.177
Single Parent	58%	36	73%	43	
Two-Parent Extended Family	17%	11	7%	5	
Monthly Income:					
$800 or less	43%	27	46%	28	
$801-$1,000	29%	18	27%	18	.321
$1,001-1,200	11%	7	20%	10	
1,201 or more	27%	11	7%	4	
Ethnicity:					
Caucasian	76%	48	82%	49	
African-American	8%	5	2%	1	.027
Hispanic	6%	4	16%	10	
Asian	8%	5	0%	0	
Multi-Cultural	2%	1	0%	0	

A majority of the treatment group parents who completed the study were female. The percentage of females was 87% (n=55). Thirteen percent were males (n=8).

Fifty-eight percent of the treatment group parents who completed the study lived in a rural area (n=36). Forty-two percent of the treatment group parents lived in an urban area in Michigan (n=27).

The dominant types of household composition were two-parent households (58%, n=36) and single-parent households (25%, n=16). Other participants indicated that they lived in extended family households (17%, n=11).

The majority of the treatment group participants who completed the study earned less than $1,000 a month (72%, n=45). The modal income level was $800.00 or less a month (43%, n=27). Twenty-nine percent of parents indicated that they earned between $801 and $1,000 a month (n=18). Eleven percent earned between $1,001 and $1,200 (n=7). The final 27% of participants earned over $1,200 a month (n=11).

Seventy-six percent of the treatment group parents who completed the study were Caucasian (n=48). Eight percent of the participants were African-American (n=5), six percent were Hispanic (n=4) and eight percent were Asian (n=5). The final two percent of participants identified themselves as "multi-cultural"(n=1).

Analysis of Key Demographic Variables for Comparison Group Parents who Completed the Research Project and Those Who Dropped Out of the Study

The attrition rate for parents in the comparison group was similar to the rate for parents in the treatment group. Sixty out of 69 parents completed the research project. The attrition rate for parents in the comparison group was 13% of parents.

Independent t-tests were computed for the ratio variables to determine if there were differences between parents in the comparison group who completed the study and those who dropped out of the study. The results of the analysis showed equality in the group means for mother's age (t=1.32, p=.192). Differences were found are the variables of number of children in the household (t=2.41, p=.019) and education (t=3.24, p=.002). In general, comparison group parents who dropped out of the study had completed fewer years of education and had fewer children in the household. The mean education of comparison group parents who dropped out of the study was 9.75, whereas the mean education of parents who completed the study was 11.98. For the variable of number of children, the mean for comparison group parents who completed the study was 2.5 children, and the mean for those parents who did not complete the study was 1.5 children.

Chi Square computations were conducted for the categorical variables. Equivalency of group means were found for the variables of residence (p=.669), gender (p=.409), income (p=.460) and ethnicity (p=.068). Statistically significant differences were found in the area of household composition. Comparison group parents who did not complete the study tended to be from single parent households (80%), whereas only 20% of parents who completed the study were from single parent households.

Demographics of Comparison Group Parents who Completed the Research Project

Analysis was conducted on key demographic variables for comparison group parents who completed the research project. Means and standard

deviations were computed for all the interval and ratio variables. Table 3 shows the descriptive statistics for maternal and paternal age, education and number of children.

The maternal age of comparison group parents who completed the research study ranged from 18 years to 40 years, with a mean age of 26.09 years. The standard deviation for maternal age was 5.21 years. The mean age of comparison group fathers who completed the study was 29.48 years, with a range from 20 to 43 years. The standard deviation for paternal age was 6.92 years.

The mean educational attainment for the comparison group parents who completed the study was 11.98 years of education. The standard deviation was 1.22 years. Education ranged from 9 years to 18 years.

The mean number of children within participants' household was 2.54. The standard deviation was 1.02. The minimum number of children was one and the maximum number of children was 5 children.

Percentages and frequencies were computed for all the categorical demographics of the comparison group parents who completed the study. Categorical variables for this study included gender, residence, household composition, income and ethnicity. These descriptive statistics are reported on Table 4.

A majority of the comparison group parents who completed the study were female (61%, n=37). Thirty-nine percent of the parents in the treatment group who completed the study were males (n=23).

Fifty percent of the comparison group parents who completed the study lived in a rural area (n=30). The other 50% of the comparison group parents lived in an urban area in Michigan (n=30).

The dominant types of household composition were two-parent households (73%, n=43) and single-parent households (20%, n=12). Other participants indicated that they lived in extended family households (7%, n=5).

The majority of the participants earned less than $1,000 a month (73%, n=46). The modal income level was $800.00 or less a month (46%, n=28). Twenty-seven percent of parents indicated that they earned between $801 and $1,000 a month (n=18). Twenty percent earned between $1,001 and $1,200 (n=10). The final seven percent of participants earned over $1,200 a month (n=4).

Eighty-two percent of the comparison group parents who completed the study were Caucasian (n=49). Two percent of the participants were African-American (n=1) and sixteen percent were Hispanic (n=10).

Analysis of Key Demographic Variables for Treatment Group Parents who Completed the Study and Comparison Group Parents Who Completed the Study

Independent t-tests were computed for the ratio variables to determine if there were differences between treatment group parents and comparison group parents who completed the study. The results of the analyses are shown on Table 3. Independent t-tests showed equality in group means for education (t=-1.988, p=.279). Differences were found for the variables of maternal age (t=-3.426, p=.001), paternal age (t=-2.996, p=.004) and number of children in the

household (t=-3.910, p=.0005). In general, comparison group parents who completed the study tended to be older and have more children than treatment group parents who completed the study.

Chi Square computations were conducted for the categorical variables. Equivalency of group means were found for the variables of residence (p=.246), household composition (p=.177) and income (p=.321). Statistically significant differences were found in the areas of gender (p=.002) and ethnicity (.027). There tended to be more males in the comparison group sample. The comparison group sample also had slightly less diversity in ethnicity.

Comparisons of Dependent Variables for Treatment Group Parents and Comparison Group Parents

Analysis were also conducted to determine if parents in the treatment group and parents in the comparison group were similar in respect to the study's dependent variables of satisfaction with social support, amount of social support and parenting behaviors, prior to the treatment. Tables 5, 6, 7, and 8 show the results of a series of chi square analyses.

Table 5 shows that parents in the treatment group reported a mean of 36.42 (SD = 13.04) for the variable of satisfaction with social support. The mean of social support satisfaction for parents in the comparison group was slightly lower at 31.60 (SD=10.64). The analysis showed that the two groups of parents were similar for this variable (p=526).

Table 5: Comparison of Pretest Scores for Perceived Satisfaction with Social Support

GROUP	N	Mean	Standard Deviation	Pearson Chi-square	P
Treatment Group	66	36.42	13.04	41.750	.526
Comparison Group	69	31.60	10.64		

Table 6: Comparison of Pretest Scores for Amount of Social Support

GROUP	N	Mean	Standard Deviation	T	P
Treatment Group	69	11.67	3.95	1.11	.270
Comparison Group	69	11.05	2.76		

Table 6 compares the means of the parents in the treatment group and parents in the control group on the variable of amount of social support. Parents in the treatment group indicated that they had a mean of 11.67 (SD=3.95) sources of social support available to assist them in child rearing. Parents in the control group had a mean number of 11.05 (SD=2.76) sources of social support available to assist them. Although parents in the control group had slighter fewer sources of social support available to them, the independent t-test analysis found that the group means were statistically similar (t=1.11, p=.270).

Parenting behaviors were assessed through two different measures. Table 7 shows the results of the groups means for parenting behaviors as recorded on the Parenting Behavior Assessment (PBA). The mean of the

parenting behavior assessment for the treatment group was 125.83 (SD=22.05). The mean for the comparison group was similar at 128.74 (SD=16.32). Chi-square analysis showed that the groups means were equal (p=.428).

Table 7: Comparison of Pretest Scores for Parenting Behaviors (PBA)

GROUP	N	Mean	Standard Deviation	Pearson Chi-Square	P
Treatment Group	63	125.83	22.05	50.138	.428
Comparison Group	60	128.74	16.32		

The second parenting assessment was the HOME observation form. Chi square analyses for this assessment showed that the two groups were equal for the variables measured on this assessment (p=.160). The mean for the treatment group was slightly higher and had a larger standard deviation (mean=33.59, SD=7.49) in comparison to parents in the comparison group (mean=31.84, SD=5.01). These results are shown on

Table 8: Comparison of Pretest Scores for Parenting Behaviors (HOME)

GROUP	N	Mean	Standard Deviation	pearson chi-square	P
Treatment Group	65	33.59	7.47	33.079	.160
Comparison Group	60	31.84	5.01		

This series of tests found that prior to the treatment, parents in the treatment group and parents in the comparison group had similar scores on the measures of perceived satisfaction with social support, amount of social support

and parenting behaviors. These results, in combination with the demographic data appear to indicate that the two groups of parents were similar prior to the treatment.

Instrumentation

Four instruments were used to measure the variables outlined in this study. The instruments included an intake questionnaire to collect demographic information, a social support survey to examine the parent's quantity and quality of social support and two parenting assessment tools. One parenting assessment tool was a parental self-report survey and the other parenting instrument was an instructor observation tool.

Intake questionnaire

The intake questionnaire contained 14 demographic questions, including parents' and children's gender and ages, family composition, ethnicity, residence, household income and parental education. The intake form also provided parental information on the number of children in the home. The intake questionnaire is entitled the "Family Record Form." The Family Record Form was developed by the BSF program. It is used by all Michigan State University Extension paraprofessional staff involved in BSF programs. A copy of this instrument is included in Appendix C.

Family Social Support

The Family Support Scale (FSS) is an 18-item self-report scale. The FSS was developed by C. Dunst, C. Trivette and A. Deal and published in "Supporting and Strengthening Families" (1994). It is designed to measure the quantity and perceived support being provided to parents through a variety of sources,

including support from a partner/spouse, kin, informal sources and formal sources. Ratings are made on a five-point Likert scale, with answers ranging from Not-At-All-Helpful to Extremely Helpful. The scoring form also has a "not available" option for any sources of support that are not available to the parent. Higher scores on the scale indicate higher satisfaction and quantity of social support. See Appendix D for a copy of the Family Social Support instrument.

A limitation of the survey is that when a "not available" item is coded as a zero, it lowers the mean score for satisfaction. The quandary is that sometimes less overall support is not as stressful as more support that is perceived as unsatisfactory.

The coefficient alpha computed for the 18 scale items is .79. The split-half reliability is .77. Reliability analyses were also conducted for the sample involved in this study. The Cronbach's Alpha for this study was .71. "The magnitude of both the internal consistency and split-half reliability coefficients indicate the FSS has substantial internal consistency, thus yielding evidence to substantiate the contention that the scale is measuring a broad construct which we labeled social support" (Dunst, Trivette and Deal, 1994). A principal components analysis using varimax rotation was used to discern the construct validity of the FSS. The analysis showed five orthogonal factors, which accounted for 55% of the variance. The multiple factor solution indicates that the FSS is measuring different sources of social support.

The Family Social Support scale was selected for this research study because it has several important benefits. First of all, reliability measures

provided assurance that the tool was capable of measuring a variety of forms of social support. Secondly, it was able to examine both quantity and perceived quality of parental support. Both of these characteristics are important aspects of the construct of social support. And finally, the instrument is short and simple for the parent to complete. The form could be easily administered by a paraprofessional during a busy home visit. The FSS was administered on both the initial and final visit with the family.

Home Observation for Measurement of the Environment (HOME)

The HOME Inventory (Bradley and Caldwell, 1984) was one of the measurement instruments used to assess parenting behaviors. A copy of the HOME Inventory is included in Appendix E. This inventory uses a combination of observation and interview to assess the quality and quantity of support for cognitive, social and emotional development being provided to the child by the parent. The HOME contains six subscales, including a) emotional and verbal responsivity, b) acceptance of the child's behavior, c) organization of the environment, d) provision of play materials, e) parental involvement with the child and e) opportunities for variety. It is a 45-item assessment that is coded in a binary (yes-no) manner. The number of "yes" answers is counted to obtain both a subscale score and a total score.

The version of the HOME instrument used in this study was the infant version. It is designed for parents of children from birth to 3 years of age. The HOME scale was completed on both the initial and final visits with the family. Paraprofessionals were trained on the use of the instrument prior to

administration of it. A training meeting for all the paraprofessionals was held prior to the start of the research project.

Since the parenting instructors were also conducting the evaluation, there was the possibility of evaluator bias. To help eliminate this bias, inter-rater comparisons were conducted during the study. Every tenth evaluation had an inter-rater comparison made to examine consistency in the instrument results. Also, an unbiased research assistant carried out the data collection with approximately one-half of the families. The research assistant was trained and experienced in the use of the instruments involved in this study.

Internal consistency for the infant version of the HOME was estimated using the alpha coefficient. The analysis showed an internal consistency of alpha coefficients ranging from .44 to .89. This study also conducted reliability analyses using the sample involved in this study. Cronbach's alpha tests for this study was .69.

In regard to validity, there was considerable information pertaining to its correlations with diverse outcomes (Bradley and Caldwell, 1988). One research study tested the instruments' validity with 77 children from a diverse group of families. This study found the infant version of the HOME scale to be moderately correlated with cognitive performance. The validity correlations ranged from .3 to .7 (Bradley and Caldwell, 1988).

The HOME was selected for several reasons. It is a relatively unobtrusive measure of parenting behavior. Paraprofessionals could perform the assessment while conducting a routine home visit. Also, the HOME was

selected because it provided this study with a triangulation of evaluation methods. While many of the other measures were self-report, this measure allowed the instructor to observe behavior and report from that perspective.

Building Strong Families: Parenting Behavior Assessment

The Building Strong Families: Parenting Behavior Assessment (PBA) is designed to assess changes in parenting behaviors related to the promotion of children's physical, intellectual, social and emotional development. See Appendix F for a copy of this instrument. It was adapted from the Q-Sort Inventory of Parenting Behaviors (Lawton, Coleman, Boger, Pease, Gelejs, Presky, and Looney, 1983).

The PBA utilizes an innovative version of the Likert Scale to examine changes in participants' perception of parenting behaviors. The Likert scale is visually portrayed on five envelopes. The envelopes have pictures on them representing the labels "always", "often", "sometimes", "seldom", and "never." During the assessment parents were given 32 cards with one parenting behavior printed on each card. Parents placed each of the cards in the envelope that most closely represented the parents' perception of the frequency at which he or she performs each parenting behavior.

Parents completed the PBA at the initial and final visit with the home visitor. After the scores were recorded for the PBA, a total score was determined by adding together the scores for each of the 32 items. Total scores for the pretest and posttest were then compared to examine changes in parenting

behaviors. All paraprofessionals with the BSF program attend training on the use of this instrument and use it with every family who enters the program.

The PBA has a great deal of content validity because it was developed specifically for the BSF program. The parenting behaviors included in the PBA are from the content that is taught to the parents. Reliability for the PBA involving this sample showed a Cronbach's alpha of .92. The split-half reliability score was .90.

The PBA was selected as a second parenting behavior measurement tool because it had high content validity for this type of parent education and it is an appropriate instrument for the sample. The visual emphasis of the tool provided a means to measure parents who may have limited literacy skills.

Tests of Correlation for the Two Parenting Instruments

Tests of correlation were conducted to determine if the two parenting assessments were measuring similar constructs. The Pearson R correlation was computed on the HOME Inventory and the Parenting Behavior Assessment. Test results showed that the two instruments were correlated (R=.27, p=.009).

Data Analysis

Instructors submitted all data to the investigator for data entry and analysis. The data was entered and analyzed using the Statistical Package for the Social Sciences (SPSS, 1995). The statistical analysis for this research project contained both descriptive and inferential statistics. Descriptive statistics included measures of frequencies and percentages. Descriptive analyses were conducted on the quantity and quality of social support and the parenting behavior scales.

Inferential statistics were used for the hypothesis testing. The purpose of the main hypothesis was to analyze the difference in the group means of satisfaction with social support between the treatment and comparison group. Analysis of covariance (ANCOVA) was used to conduct this analysis. Pretest scores were the covariates, posttest scores were the outcome variables and the groups were used as the factor.

The first two sub-hypotheses were similar in structure to the main hypotheses. The first sub-hypothesis sought to examine the difference in the group means for the amount of social support between the treatment and comparison group. The second sub-hypothesis predicted a difference between the means of the two groups in parenting behavior levels. Each of these sub-hypotheses used ANCOVA statistics to compare the group means between the two groups.

The last two sub-hypotheses were a little different in structure. The purpose of these sub-hypotheses was to show the relationship between two variables. One hypothesis predicted a positive relationship between perceived satisfaction with social support and parenting behaviors. The other one proposed a positive relationship between amount of social support and parenting behaviors. Each of these hypotheses used the Pearson Product Moment correlation coefficient to test relationships between the variables. A one-tailed test was used because both hypotheses suggest directionality. Analyses were computed for the pretest scores and the posttest scores.

Ethical Considerations

An application was submitted to the University Committee on Research Involving Human Subjects (UCRIHS) to gain approval to implement a study on the influence of a paraprofessional, home-visitation parent education program on the parenting behaviors and social support of limited resource parents. Approval to conduct this research was granted on January 4, 1999. The letter granting permission for this study is included in Appendix G.

The study included many provisions to protect the rights of participants. Subjects who volunteered to become a part of the study were asked to sign a consent form. The purpose of the consent form was to make sure that parents understood the intent of the study and their rights as potential participants. Copies of the consent forms are included in Appendices H and I. Two different consent forms were developed for this project. One consent form was written for participants in the treatment group. The treatment group consent form told parents that participation in this study was voluntary and that the BSF program would still be available to them, regardless of their decision to become involved in the study. Participants were informed that they had the right to refuse to answer any or all of the questions, without penalty.

The consent form for comparison group participants also instructed parents that their participation in the research was voluntary. It informed parents of their rights to refuse to answer any questions, or to refuse to participate at any time, with penalty.

All consent forms were kept separate from the assessment tools in a secure place so no identifying information could be associated with the

assessment data. The consent forms and assessment tools were assigned a matching identification number. The signed consent forms were kept in the county where the participant was recruited. All other forms were sent to the investigator. The forms did not contain any information that could identify the participant's name, address or phone number. This protocol provided assurance that the investigator did not know the identity of any participants.

Parents involved in the research study were informed of the procedure to keep their answers confidential. The consent forms told them that their names would never be placed on any of the forms and that any identifying information would be kept separate from the research instruments. They were also told that no individual responses would be used in any research reports and that they could receive a copy of the final report.

Finally, participants in both the treatment and comparison group were advised of the research procedure, time commitment and monetary incentive involved in the study. This section of the consent form helped the participant make an informed decision regarding their participation.

CHAPTER IV

RESULTS

This chapter focuses on the results of the data analysis. It is organized into three sections. The first section contains the descriptive analysis for the dependent variables. Frequency and percentage statistics are presented for the variables of ratings of satisfaction with social support, amount of social support and parenting behaviors. The second section contains the inferential analysis for the data. Hypothesis testing was done through the use of Analysis of Covariance (ANCOVA) tests and Pearson Product Moment correlation. These tests were used to compare differences in group means and examine relationships between the dependent variables. The final section is a summary of intragroup analysis for key demographic variables.

Descriptive Analyses

Descriptive analyses were conducted to delineate the attributes of treatment and comparison group parents for each of the dependent variables. Pre-intervention and post-intervention characteristics were computed. Comparisons were made on the data.

Descriptive Analysis of Satisfaction with Social Support for Treatment Group Parents

For the dependent variable of perceived satisfaction with social support, parents were asked to rate their satisfaction according to a Likert scale of "not at all helpful", "sometimes helpful", "generally helpful", "very helpful", and "extremely helpful." Parents also had the option of circling "NA", if no social support was available to them. Higher ratings on the Family Support Scale meant that the

social support sources listed on the scale had been helpful to them in caring for their child in the last three to six months.

Tables 9 and 10 present frequencies and percentages for parental ratings of satisfaction with social support. Table 9 is the data for parents involved in the treatment group. Thirty-one percent of the treatment group parents (n=20) rated their satisfaction with social support as "not at all helpful" prior to the intervention. Following the intervention, 20% of these parents rated their social support as "not at all helpful" (n=13). This was an 11% decrease in rating for the "not at all helpful" category.

Fifty-two percent of the parents (n=33) rated their social support as "sometimes helpful" prior to the intervention. After the intervention, 63% rated it as "sometimes helpful" (n=40). These statistics showed an 11% increase in this rating.

The rating of "generally helpful" was selected by 15% of the treatment group parents (n=9) prior to the intervention. This statistic remained the same after the intervention. Post-intervention, 15% of the treatment group parents (n=9) rated their social support as "generally helpful."

None of the treatment group parents rated their social support as either "very helpful" or "extremely helpful" prior to the intervention. After the intervention, 2% of the parents moved into the "very helpful" category (n=1). Post-intervention, no treatment group parents rated their social support as "extremely helpful."

Two percent of the parents (n=1) in the treatment group reported that no social support was available to them prior to the intervention. None of the treatment group parents (0%) reported that they did not have any social support available to them after the intervention.

Table 9: Ratings of Satisfaction with Social Support for Treatment Group Parents

Ratings of Social Support	Pre-Intervention Treatment Group		Post-Intervention Treatment Group	
	N	%	N	%
No Social Support Available	1	2%	0	0%
Not At All Helpful	20	31%	13	20%
Sometimes Helpful	33	52%	40	63%
Generally Helpful	9	15%	9	15%
Very Helpful	0	0%	1	2%
Extremely Helpful	0	0%	0	0%

Descriptive Analysis of Satisfaction with Social Support for Comparison Group Parents

Table 10 shows the data for the comparison group parents. Forty-seven percent of the comparison group parents (n=28) rated their satisfaction with social support as "not at all helpful" at the beginning of the study. Forty eight percent (n=29) of parents rated their social support as "not at all helpful" at the end of the study. This analysis showed a one- percent increase in the category of "not at all helpful" for comparison group parents.

Forty-five percent of the parents (n=27) rated their social support as "sometimes helpful" at the pretest phase and 42% rated it as "sometimes helpful"

on the posttest (n=25). These statistics showed a three percent decrease in this rating.

Table 10: Ratings of Satisfaction with Social Support for Comparison Group Parents

Ratings of Social Support	Pre-Intervention Comparison Group		Post-Intervention Comparison Group	
	N	%	N	%
No Social Support Available	0	0%	0	0%
Not At All Helpful	28	47%	29	48%
Sometimes Helpful	27	45%	25	42%
Generally Helpful	5	8%	6	10%
Very Helpful	0	0%	0	0%
Extremely Helpful	0	0%	0	0%

On the pretest, the rating of "generally helpful" was selected by eight percent of the comparison group parents (n=5). At the end of the study 10% of the comparison group parents rated their social support as being "generally helpful." This was a two- percent increase in the "generally helpful" rating.

None of the treatment group parents rated their social support as either "very helpful" or "extremely helpful" on the pretest. This statistic remained the same throughout the study. On the posttest, no comparison group parents rated their social support as either "very helpful" or "extremely helpful."

All the parents in the comparison group indicated that some social support was available to them on the pretest. There were not any changes in this data at

the end of the study. All of the comparison group parents reported that they had some social support available to them on the posttest.

Descriptive Analysis of Amount of Social Support for Treatment Group Parents

To measure amount of social support, parents were given a list of 20 sources of support and asked to indicate whether or not each source had been available to help them in raising their child during the past three to six months. Higher ratings on the amount of social support portion of the Family Support Scale meant that more sources of social support were available to the family in helping them raise their child during the last three to six months.

Tables 11 and 12 present frequencies and percentages for amount of social support available to parents prior to the intervention and following the intervention. Table 11 is the data for parents involved in the treatment group.

Table 11: Amount of Social Support for Treatment Group Parents

Amount of Social Support	Pre-Intervention Treatment Group		Post-Intervention Treatment Group	
	N	%	N	%
No Social Support Available	0	0%	0	0%
1-5 Sources	5	8%	0	0%
6-10 Sources	19	30%	15	24%
11-15 Sources	28	44%	39	62%
16-20 Sources	11	18%	9	14%

Eight percent of the treatment group parents (n=5) reported that one to five sources of social support were available to them prior to the intervention. Following the intervention, none of the treatment group parents (0%) reported

that they had five or fewer sources of social support. This was an eight- percent decrease in this category for the treatment group parents.

Prior to the intervention, 30% of the treatment group parents (n=19) reported that 6 to 10 sources of social support were available to help them raise their child. Following the intervention, 24% of the treatment group parents (n=15) reported that they had 6 to 10 sources of social support available to them. These statistics showed a six percent decrease in this category for the treatment group parents.

Forty-four percent of parents in the treatment group (n=28) reported that 11 to 15 sources of social support were available to them prior to the intervention. Following the intervention, 62% of the parents in the treatment group (n=39) reported that they had 11 to 15 sources of social support. This was a 22% increase in this category for the treatment group parents.

Prior to the intervention, 18% of the treatment group parents (n=11) indicated that they had 16 to 20 sources of social support available to help them in raising their child. Following the intervention, 14% of the parents in the treatment group (n=9) reported that they had 16 to 20 sources of social support available to them. The analysis showed a four percent decrease in this category for the treatment group parents.

There were not any treatment group parents who reported that they did not have any social support available to them prior to the intervention. These statistics stayed the same after the intervention. Post-intervention scores

showed that all of the treatment group parents had some social support available to them.

Descriptive Analysis of Amount of Social Support for Comparison Group Parents

The number and percentages of social support amounts for comparison group parents is shown on Table 12. On the pretest, none of the parents in the comparison group (0%) indicated that one to five sources of social support were available to them prior to the intervention. Posttest scores showed that two percent of the comparison group parents (n=1) reported that they had just one to five sources of social support available to them.

At the beginning of the study, 45% of the comparison group parents (n=27) reported that 6 to 10 sources of social support were available to help them raise their child. On the posttest, 38% of the comparison group parents (n=23) reported that they had 6 to 10 sources of social support available to them. These statistics showed a four percent decrease in this category.

Fifty percent of comparison group parents (n=30) reported that 11 to 15 sources of social support were available to them on the pretest. On the posttest, 42% of the parents in the comparison group (n=25) reported that they had 11 to 15 sources of social support. This analysis showed a four percent decrease in this category for parents in the comparison group.

Five percent of the comparison group parents (n=3) indicated that they had 16 to 20 sources of social support available to help them in raising their child on the pretest. On the posttest, 18% of the comparison group parents (n=11) reported that they had 16 to 20 sources of social support available to them. The

analysis showed a 15% increase in this category for parents in the comparison group.

All of the comparison group parents reported that they had at least one to five sources of social support available to help them in raising their child on the pretest. This statistics stayed the same throughout the study. Posttest scores showed that none of the parents reported that they did not have any social support available to them.

Table 12: Amount of Social Support for Comparison Group Parents

Amount of Social Support	Pre-Intervention-Comparison Group		Post-Intervention-Comparison Group	
	N	%	N	%
No Social Support Available	0	0%	0	0%
1-5 Sources	0	0%	1	2%
6-10 Sources	27	45%	23	38%
11-15 Sources	30	50%	25	42%
16-20 Sources	3	5%	11	18%

Descriptive Analysis of Parenting Behaviors

For the dependent variable of parenting behaviors, parents were assessed through the use of two different instruments. One of the instruments was the Parenting Behavior Assessment (PBA). The PBA is a self-report tool where parents are asked to rate how frequently they perform various parenting behaviors. Ratings are based on a Likert scale of "never", "seldom", "sometimes", "often", and "always." The PBA was developed with the assumption that effective parents do the behaviors listed on the PBA more consistently.

Higher scores recorded on the PBA meant that parents performed positive parenting behaviors more frequently.

Descriptive Analysis for Treatment Group Parents' Parenting Behaviors Using the PBA. Tables 13 and 14 present descriptive data for frequency ratings of parenting behaviors. Table 13 is the data for parents involved in the treatment group. Prior to the intervention, none of the treatment group parents (0%) reported that they "never" do the parenting behaviors listed in the PBA. This statistic did not change during the course of the BSF program. At the end of the intervention none of the parents reported that they "never" perform the parenting behaviors.

Pretest scores showed that four percent of the treatment group parents (n=2) indicated that they "seldom" do the parenting behaviors listed on the PBA for their children. Following the intervention none of the parents said that they "seldom" do the parenting behaviors for their children. These statistics showed a four percent decrease in this item.

At the beginning of the BSF program 20% of the parents (n=12) said that they "sometimes" do the parenting behaviors listed on the PBA. This category showed a nine-percent decrease following the intervention. Post-intervention scores indicated that 11% of the treatment group parents rated their level of parenting behaviors as "sometimes" (n=7).

The frequency level of "often" was selected by 60% of the treatment group parents (n=39) prior to the intervention. This statistic decreased by three percent

after the intervention. Post-intervention, 57% of the treatment group parents (n=36) rated their frequency as "often."

Sixteen percent of the treatment group parents (n=10) reported that they "always" do the parenting behaviors listed on the PBA. Following the intervention 32% of the parents (n=20) indicated that they "always" do the parenting behaviors. This was 10% increase.

Table 13: Frequency of PBA Parenting Behaviors (Treatment Group)

Rating of Frequency	Pre-Intervention Treatment Group		Post-Intervention Treatment Group	
	N	%	N	%
Never	0	0%	0	0%
Seldom	2	4%	0	0%
Sometimes	12	20%	7	11%
Often	39	60%	36	57%
Always	10	16%	20	32%

Descriptive Analysis for Comparison Group Parents' Parenting Behaviors Using the PBA. Table 14 presents the data for parents involved in the comparison group. Pretest scores showed that none of the comparison group parents (0%) reported that they "never" do the parenting behaviors listed in the PBA. This statistic did not change throughout the study. Posttest scores showed that 0% of the comparison group parents (n=0) reported that they "never" perform the parenting behaviors listed on the PBA.

On the pretest, two percent of the comparison group parents (n=1) indicated that they "seldom" do the parenting behaviors listed on the PBA. On the posttest, none of the parents (n=0) said that they "seldom" do the parenting

behaviors. These statistics showed a two percent decrease for the category of "seldom."

At the beginning of the study five percent of the comparison group parents (n=3) said that they "sometimes" do the parenting behaviors listed on the PBA. These statistics did not change during the course of the study. On the posttest, five percent of the comparison group parents indicated that they "sometimes" do the parenting behaviors listed on the PBA (n=3).

The category of "often" was selected by 80% of the comparison group parents (n=48) at the beginning of the study. This statistic decreased by seven percent during the study. Posttest scores showed that 73% of the comparison group parents (n=44) rated their frequency as "often."

On the pretest, 13% of the parents in the comparison group reported that they "always" do the parenting behaviors listed on the PBA (n=8). On the posttest, twenty-two percent of the parents indicated that they "always" do the parenting behaviors (n=13). This was a nine percent increase.

Table 14: Frequency of PBA Parenting Behaviors (Comparison Group)

Rating of Frequency	Pre-Intervention Comparison Group		Post-Intervention Comparison Group	
	N	%	N	%
Never	0	0%	0	0%
Seldom	1	2%	0	0%
Sometimes	3	5%	3	5%
Often	48	80%	44	73%
Always	8	13%	13	22%

The second instrument used to measure parenting behaviors was the HOME inventory. The HOME Inventory allowed the home visitor to make observations while in the home and record them. A total of 45 observations were made for this inventory. Observations were made in the areas of emotional and verbal responsivity, acceptance of child's behavior, organization of the environment, provision of play materials, parental involvement with the child and opportunities for variety. Observations were coded in a binary (yes-no) manner. The "yes" answers were counted to obtain a total score. The HOME Inventory was developed with the assumption that effective parents perform more of the behaviors listed on the inventory than parents who are not effective in caregiving. Higher scores on the HOME inventory indicate that the parent has been observed performing more of the behaviors on the assessment and are considered more effective parents.

Tables 15 and 16 present frequencies and percentages for number of positive parenting behaviors observed on the HOME inventory prior to the intervention and following the intervention. Table 15 is the data for parents involved in the treatment group.

Descriptive Analysis for Treatment Group Parenting Behaviors Using the HOME. Two percent of the treatment group parents (n=1) were observed to perform 0 to 15 of the parenting behaviors prior to the intervention. Following the intervention, none of the treatment group parents (0%) were reported to have performed 15 or fewer of the parenting behaviors (n=0). This was a two- percent decrease in this category for the treatment group parents.

On the pretest, 35% of the treatment group parents (n=22) were observed to have performed 16 to 30 of the parenting behaviors identified on the HOME inventory. Following the intervention only three percent of the treatment group parents (n=2) were observed to perform 16 to 30 of the parenting behaviors. These statistics showed a 32% decrease in this category for the treatment group parents.

Pre-intervention scores showed that 63% of parents in the treatment group (n=40) were observed to perform 31 to 45 of the parenting behaviors identified on the HOME inventory. Following the intervention 97% of the parents in the treatment group (n=39) were observed doing the parenting behaviors on the HOME inventory. This was a 34% increase in this category for the treatment group parents.

Table 15: Frequency of HOME Parenting Behaviors (Treatment Group)

Number of Parenting Behaviors	Pre-Intervention Treatment Group		Post-Intervention Treatment Group	
	N	%	N	%
0-15 Behaviors	1	2%	0	0%
16-30 Behaviors	22	35%	2	3%
31-45 Behaviors	40	63%	61	97%

Descriptive Analysis for Comparison Group Parenting Behaviors Using the HOME Inventory. Table 16 shows the data for parents involved in the comparison group. None of the comparison group parents (n=0) were observed to do less than 16 of the parenting behaviors at the beginning of the study. This statistic did not change during the course of the study. Posttest scores showed

that none of the comparison group parents (0%) were reported to have performed 15 or fewer of the parenting behaviors.

Table 16: Frequency of HOME Parenting Behaviors (Comparison Group)

Number of Parenting Behaviors	Pre-Intervention Comparison Group		Post-Intervention Comparison Group	
	N	%	N	%
0-15 Behaviors	0	0%	0	0%
16-30 Behaviors	22	37%	23	38%
31-45 Behaviors	38	63%	37	62%

On the pretest, 37% of the comparison group parents (n=22) were observed to have performed 16 to 30 of the parenting behaviors identified on the HOME inventory. Posttest data showed that 38% of the comparison group parents (n=23) were observed to perform 16 to 30 of the parenting behaviors. These statistics demonstrated a one- percent increase in this category for the comparison group parents.

On the pretest, 63% of comparison group parents (n=38) were observed to perform 31 to 45 of the parenting behaviors identified on the HOME inventory. At the end of the study, 62% of the parents in the comparison group (n=37) were observed doing the parenting behaviors on the HOME inventory. This was a one- percent decrease in this category for the comparison group parents.

Inferential Statistics

Main Hypothesis: Changes in Satisfaction with Social Support Following an Intervention

The primary purpose of this research was to determine the influence that a paraprofessional, home-visitation parent education program had on parent's

on parent's satisfaction with social support. The research sought to examine the equality of means for parents in a treatment group and parents in a comparison group for social support variables.

It was hypothesized that limited resource parents involved in a paraprofessional, home-visitation parent education program would show an increase in levels of perceived satisfaction with social support when compared to limited resource parents in a comparison group. The key to this hypothesis was the design of the intervention. By using a paraprofessional design for the information delivery it was expected that parents would feel more supported as a result of the program.

This hypothesis was based on the supposition that parents are better able to form a supportive relationship with home visitors if they are viewed as having attributes similar to the families they serve (Olds, Kitzman, Cole and Robinson, 1997). A close therapeutic alliance between the parent and paraprofessional home visitor was speculated to help the parent by serving as a form of social support for the parent until additional linkages could be built in his or her support network. It was thought that the instructor provided emotional and informational support to the parent while parenting behaviors and social support levels were being increased (Olds Kitzman, Cole and Robinson, 1997).

A series of Analyses of Covariance (ANCOVA) tests were used to conduct this analysis. Pretest scores were used as the covariate, posttest scores were the outcome variables and the groups (treatment group and control group) were used as the factor. A covariate analysis was chosen because it eliminates

systemic error that can bias results and accounts for differences in the responses due to the unique characteristics of the respondents. The investigator felt that it was important to eliminate potential biases in this study because of the quasi-experimental design of the study. All pretest scores were used as covariates to help reduce potential differences that may have occurred within the two groups.

The ANCOVA was also chosen for this study because it reduces the chance of type I error. The investigator felt that a series of t-tests would increase the possibility of type I error. Once the initial determination of equality of group means was established using ANCOVA, then the investigator felt it was prudent to run t-tests on selected variables as a form of post-hoc analysis. The t-tests were used to examine directionality of changes for group means.

The maximum number of points possible for the perceived satisfaction with social support section of the Family Support Scale is 100 points. The premise of the instrument is that higher scores on the scale indicate higher levels of perceived satisfaction with social support. The mean pretest score for the treatment group was 36.42 (SD=13.04) and the mean posttest score was 39.47 (SD=11.97). The mean pretest score for the comparison group was 31.60 (SD=10.64) and the mean posttest score was 32.10 (SD=11.48). (See Table 17.)

Table 17: Equality of Group Means for Perceived Satisfaction with Social Support

		PRETEST		POSTTEST		DIFFERENCE		F	P
GROUP	N	X	SD	X	SD	X	SD		
Treatment	60	36.4	13.04	39.5	11.97	3.1	-1.07	6.58	.012
Comparison	60	31.6	10.64	32.1	11.48	.5	.84		

The results of the ANCOVA allowed us to reject the hull hypothesis for this study's main hypothesis. The group means for perceived satisfaction with social support were not equal following the treatment. The main effect for group had an F of 6.58 and a significance level of .012. (See Table 17.)

Because the groups were statistically similar prior to the intervention, it can be suggested that the increase in groups means for the treatment group was due to the paraprofessional, home-based parent education program. In other words, this study appears to show that parents who participated in the BSF program between February 1, 1999 and January 30, 2000 experienced increased levels of perceived satisfaction with their social support because of their participation in the program.

Further investigation was conducted to determine changes in group means for perceived satisfaction with specific sources of social support for parents in the treatment group. The assessment used in this study examined parental satisfaction with a variety of informal and formal sources of social support. It was anticipated that changes would occur in both informal sources and formal sources of support.

The results of the analysis of specific sources of social support are found on Table 18. Paired t-tests were conducted to determine changes in group means from pretest levels of satisfaction with various sources of support to posttest levels of satisfaction with the same sources of support. Paired t-tests showed that statistically significant changes were found for three of the sources of social support. Parents were found to have increased levels of satisfaction

with their neighbors (t=2.29, p<.026), their doctor (t=2.15, p<.036) and with the parenting program (t=4.70, p<.0005). Other sources of support did not change at a statistically significant level. (See Table 18.)

Table 18: Paired T-Test Analysis of Perceived Satisfaction with Specific Sources of Social Support (Treatment Group)

Source of Social Support	N	PRETEST X	PRETEST SD	POSTTEST X	POSTTEST SD	DIFFERENCE X	DIFFERENCE SD	t-value (P)
My Parents	60	3.35	1.745	3.50	1.682	.15	1.071	1.09 (.282)
Partner's Parents		2.78	1.833	2.88	1.776	.1	1.446	.54 (.594)
My Relatives		2.60	1.546	2.95	1.320	.35	1.527	1.77 (.081)
My Partner		3.63	1.583	3.45	1.651	-.18	1.308	-1.09 (.282)
My Friends		2.45	1.489	2.67	1.174	.22	1.329	1.26 (.212)
Partner's Friends		1.77	1.477	1.83	1.380	.06	1.376	.38 (.709)
Other Children		1.45	1.890	1.40	1.729	-.05	1.333	-.29 (.772)
Neighbors		1.70	1.344	2.17	1.452	.47	1.578	2.29 (.026)
Co-workers		1.25	1.527	1.17	1.404	-.08	.934	-.70 (.489)
Parent groups		1.13	1.672	1.27	1.784	.14	1.953	.53 (.599)
Social groups		.70	1.293	.58	1.062	-.12	1.508	-.60 (.51)
Church		1.03	1.573	.800	1.400	-.23	1.500	-1.21 (.233)
Doctor		3.02	1.444	3.35	1.233	.33	1.203	2.15 (.036)
School/Day Care		1.10	1.753	1.43	1.881	.33	1.763	1.46 (.148)
Parenting Program		2.30	2.085	3.83	1.739	1.53	2.528	4.70 (.0005)
Food programs		2.55	2.103	2.27	1.999	-.28	2.308	-.95 (.345)
Agencies that help with money		1.65	2.015	1.57	2.003	-.08	1.862	-.35 (.730)
Housing Help		1.0	1.657	.983	1.631	-.017	1.490	-.09 (.931)
Employment Agencies		.783	1.303	.967	1.551	.184	1.172	1.21 (.230)
Other sources								

Sub-Hypothesis 1: Analysis of Changes in Overall Amount of Social Support Following an Intervention

In addition to increases in parent's satisfaction of their current social support, this study also posited that overall levels of social support would increase as a result of participation in a home-based parent education program. Specifically, this study hypothesized that limited resource parents involved in a paraprofessional, home-visitation parent education program would show an increase in overall amount of social support as compared to limited resource parents in a comparison group.

This hypothesis was based on the premise that paraprofessionals serve as role models on how to build and maintain supportive relationships. A close bond between the parent and paraprofessional home visitor was thought to help the parent learn to trust supportive relationships and develop interpersonal skills. These skills may then be transferred to relationships between the parent and other possible social support network members (Gomby, Culross, and Behrman, 1999).

In addition to the program design, the program content also sought to accomplish the changes proposed in this hypothesis. The program content included a goal-setting unit that helped the parent secure human and material resources to accomplish goals. Through the use of this curriculum home visitors helped facilitate the extension of parents' social networks, by creating connections with informal and formal resources.

The maximum number of points possible for the amount of social support section of the Family Support Scale is 20 points. Higher points recorded on the

instrument indicate more sources of social support available to the parent. The mean pretest score for the treatment group was 11.67 (SD=3.95) and the mean posttest score was 12.54 (SD=3.18). The mean pretest score for the comparison group was 11.05 (SD=2.76) and the mean posttest score was 11.77 (SD=3.35). (See Table 19.)

Table 19: Equality of Group Means for Amount of Social Support

		PRETEST		POSTTEST		DIFFERENCE		F	P
GROUP	N	X	SD	X	SD	X	SD		
Treatment	60	11.67	3.95	12.54	3.18	.87	-.77	.93	.336
Comparison	60	11.05	2.76	11.77	3.35	.72	.59		

Hypothesis testing was conducted through the use of ANCOVA tests. The results of the ANCOVA suggest that the group means for parental amounts of social support were equal following the treatment. This caused us to accept the null hypothesis for sub-hypothesis #1. The results had an F of .93 for the main effect of group (treatment and comparison group) and a significance level of .336. (See Table 19.)

Sub-Hypothesis 2: Analysis of Changes in Parenting Practices Following an Intervention

Another important parental outcome of involvement in a paraprofessional, home-visitation parent education program is changes in parenting behaviors. In this study limited resource parents who were involved in a paraprofessional, home-visitation parent education program were hypothesized to show an increase in positive parenting behaviors as compared to limited resource parents in a comparison group. This hypothesis was based upon the favorable results of some studies that have found paraprofessional, home visitation parent education

programs to be an effective means of changing parenting behaviors. Studies showing evidence in support of changes in parenting behaviors have associated this delivery method with increased parent-child interaction (Daro and Harding, 1999), maternal parenting efficacy (Duggon, McFarlane, Windham, Rohde, Salkever, Fuddy, Rosenberg, Buchbinder and Sia, 1999); maternal-child attachment (Jacobson and Frye, 1991), child IQ (Blair, Ramey and Harden, 1995; Liaw, Meisels and Brooks-Gunn, 1995), maternal involvement (Boger, Richter, Hurnetz and Haas, 1986), better prenatal care and fewer pre-term births (Rogers, Peoples-Sheps and Suchindran, 1996).

Parenting behaviors were measured through two different instruments. One instrument was the Parenting Behavior Assessment (PBA). This instrument is a self-report tool designed to assess changes in parenting behaviors related to the promotion of children's physical, intellectual, social and emotional development. It was adapted from the Q-Sort Inventory of Parenting Behaviors (Lawton, Coleman, Boger, Pease, Gelejs, Presky, and Looney, 1983).

The PBA was developed on the premise that effective parents perform the behaviors listed on the PBA more consistently. Higher scores recorded on the PBA mean that parents perform positive parenting behaviors more frequently. The maximum number of points possible for the Parenting Behavior Assessment is 160 points. The mean pretest score for the treatment group was 125.8 (SD=22.0) and the mean posttest score was 133.8 (SD=15.3). The mean pretest score for the comparison group was 128.7 (SD=16.3) and the mean posttest score was 131.0 (SD=15.4). (See Table 20.)

Table 20: Equality of Group Means for Parenting Behaviors (PBA)

		PRETEST		POSTTEST		DIFFERENCE		F	P
GROUP	N	X	SD	X	SD	X	SD		
Treatment	51	125.8	22.0	133.8	15.3	8	-6.7	4.89	.029
Comparison	51	128.7	16.3	131.0	15.4	2.3	-.9		

A series of ANCOVA tests were run to test sub-hypothesis #2. The results of the ANCOVA are shown on Table 20. The results of an F of 4.89 for the main effect of group (treatment and comparison group) and a significance level of .029 allows us to reject the null hypothesis. The group means for parenting behaviors were not equal between the treatment group and the comparison group.

The results suggest that the increase in group means for parenting behaviors can be attributed to involvement in a paraprofessional, home-based parent education program. Specifically, the results seem to show that parents who participated in the BSF program between February 1, 1999 and January 30, 2000 reported positive increases in their parenting behaviors as a result of participation in the program.

The HOME Inventory was selected as a second assessment of parenting behaviors because it provided this study with a triangulation of evaluation methods. While many of the other measures were self-report, this measure allowed the instructor to observe behavior and report from that perspective. Through this instrument instructors were able to assess the quality and quantity of care being provided to the child by the parent.

The HOME Inventory is based on the premise that effective parents perform more of the behaviors listed on the inventory. Higher scores on the HOME inventory indicate that the parent was observed performing more of the

behaviors on the assessment. The maximum number of points possible for HOME Inventory is 45 points. The mean pretest score for the treatment group was 33.6 (SD=7.47) and the mean posttest score was 39.4 (SD=4.66). The mean pretest score for the comparison group parents was 31.8 (SD=5.01) and the mean posttest score was 32.5 (SD=4.58). (See Table 21.)

Table 21: Equality of Group Means for Parenting Behaviors (HOME)

		PRETEST		POSTTEST		DIFFERENCE		F	P
GROUP	N	X	SD	X	SD	X	SD		
Treatment	60	33.6	7.47	39.4	4.66	5.8	-2.81		
Comparison	60	31.8	5.01	32.5	4.58	.7	-.43	76.2	.0005

Initial analysis on the equality of groups means for parenting behaviors as assessed through the HOME were conducted using ANCOVA tests. The results of the ANCOVA allowed us to continue to reject the null hypothesis for sub-hypothesis #2. Through this analysis it can be assumed that the group means for parenting behaviors were not equal following the treatment. The main effect of group (treatment and comparison group) had an F of 76.2 and a significance level of .0005. (See Table 21.)

The results of this study seem to suggest that the increase in group means for the treatment group was due to the paraprofessional, home-based parent education program. This evidence appears to show that parents who participated in the BSF program between February 1, 1999 and January 30, 2000 demonstrated increases in parenting behaviors.

The HOME contains six subscales, including a) emotional and verbal responsivity, b) acceptance of child's behavior, c) organization of the

environment, d) provision of play materials, e) parental involvement with the child and e) opportunities for variety. The 45-item assessment was coded in a binary (yes-no) manner. The "yes" answers were counted to obtain both a subscale score and a total score. Further investigation was conducted to determine changes in group means for specific subscales with the HOME assessment.

Paired t-tests were computed to determine changes in group means from pretest levels to posttest scores for parents in the treatment group. The results of the analysis of specific subscales on the HOME are found on Table 22.

Paired t-tests showed that statistically significant changes were found for all six of the subscales in the HOME inventory. Parents were observed to increase positive parenting behaviors in the areas of emotional and verbal responsivity ($t=6.22$, $p<.0005$), acceptance of the child's behavior ($t=3.40$, $p<.0005$), organization of the environment ($t=2.87$, $p<.0005$), provision of play materials ($t=5.24$, $p<.0005$), parental involvement with the child ($t=6.46$, $p<.0005$), and opportunity to offer the child variety ($t=2.69$, $p<.0005$).

Table 22: Paired T-Test Analysis of HOME Sub-scale (Treatment Group)

HOME SUB-SCALES	N	PRETEST X	PRETEST SD	POSTTEST X	POSTTEST SD	DIFFERENCE X	DIFFERENCE SD	t-value (p)
Emotional and Verbal Responsivity	60	8.14	2.328	9.89	1.52	1.75	2.155	6.22 (.0005)
Acceptance of Child's Behavior		5.76	1.829	6.62	1.424	.86	1.933	3.40 (.0005)
Organization of Environment		5.04	1.228	5.43	.838	.39	1.006	2.87 (.0005)
Provision of Play Materials		6.89	2.454	8.26	1.09	1.37	1.980	5.24 (.0005)
Parental Involvement with Child		4.04	1.611	5.24	1.189	1.2	1.424	6.46 (.0005)
Opportunities for Variety		3.59	1.257	3.97	1.139	.38	1.073	2.69 (.009)

Post-Intervention – Analysis of the Relationship Between Social Support and Parenting Behaviors

Sub-Hypothesis 3: Analysis of the Relationship Between Perceived Satisfaction with Social Support and Parenting Behaviors

Another important area of study within this research was the relationship between satisfaction with social support and parenting behaviors. This study hypothesized that there is a positive relationship between satisfaction with social support and supportive parenting behaviors in limited resource parents. This hypothesis was based on the scientific literature that has found that supportive social support networks can enhance the parent's self esteem, increase problem solving abilities, build skill level and reduce stress levels so that general well-being and parental functioning are enhanced (Cole, Kitzman, Olds and Sidora,

1998; Crockenberg, 1988; Cochran and Brassard, 1979; Dunst, Trivette, and Deal, 1994).

Pearson Product Moment correlations were conducted for satisfaction with social support and parenting behaviors to determine the relationship between the two variables. Since the hypothesis anticipated a positive relationship between the variables, a one-tailed correlation analysis was computed. The results of the analysis are shown on Tables 23 and 24. Table 23 shows correlations involving pretest scores and Table 24 contains the analysis using posttest scores.

Although the correlations showed mixed results, three out of the four correlations were statistically significant at the .05 level of probability. Clearly, more research needs to be conducted on the relationship between these variables. The results of this study appear to suggest that there may be a positive relationship between satisfaction with social support and parenting behaviors.

Table 23: Correlations of Satisfaction with Social Support and Parenting Behaviors (Pre-intervention)

Parenting Measures (Prior to the Intervention)	Satisfaction with Social Support (Prior to the Intervention)	
	Correlation	Probability
Parenting Behavior Assessment (pretest)	.16	.049
HOME (pretest)	.04	.356

Table 24: Correlations of Satisfaction with Social Support and Parenting Behaviors (Post-Intervention)

Parenting Measures (Post-Intervention)	Satisfaction with Social Support (Post-Intervention)	
	Correlation	Probability
Parenting Behavior Assessment (posttest)	.36	.0005
HOME (posttest)	.18	.035

Sub-Hypothesis 4: Analysis of the Relationship Between Amount of Social Support and Parenting Behaviors

A final area of study within this research is the relationship between amount of social support and parenting behaviors. Sub-hypothesis #4 posited that there is a positive relationship between amount of social support and supportive parenting behaviors in limited resource parents. This hypothesis was based on the empirical evidence that suggests that mothers who have a larger personal social support network on whom they can rely on for a variety of social provisions were found to have more confidence in their abilities to perform well as a mother (Cutrona and Troutman, 1986).

Correlations were computed for amount of social support and parenting behaviors to determine the relationship between the two variables. The test used for this analysis was Pearson Product Moment correlation. A one-tailed correlation analysis was used because the hypothesis predicted a positive relationship between the two variables. The results of the analysis are shown on Tables 25 and 26. Table 25 shows results of the analysis involving pretest scores and Table 26 shows the results of the analysis using posttest scores.

Table 25: Correlations of Amount of Social Support and Parenting Behaviors (Pre-intervention)

Parenting Measures (Prior to the Intervention)	Amount of Social Support (Prior to the Intervention)	
	Correlation	Probability
Parenting Behavior Assessment (pretest)	-.06	.265
HOME (pretest)	-.03	.378

Table 26: Correlations of Amount of Social Support and Parenting Behaviors (Post-Intervention)

Parenting Measures (Post-Intervention)	Amount of Social Support (Post-Intervention)	
	Correlation	Probability
Parenting Behavior Assessment (posttest)	-.01	.449
HOME (posttest)	-.01	.478

This study did not find a relationship between amount of social support and parenting behaviors. One possible reason why this study did not show a relationship between amount of social support and parenting behaviors was because of the varying levels of social support found among the parents. The investigator thought it would be valuable to see if an "adequacy factor" for social support was affecting the outcome of this sub-hypothesis. The data was sorted so that only cases who had >10 sources of social support were included. Pearson Product Moment correlations were re-calculated to see if parents with higher levels of social support would show a relationship with parenting behaviors. Again, the investigator found no relationship between amount of

social support and parenting behaviors. Calculations for pre-intervention scores showed a correlation of .20 and a probability of .057. Post-intervention scores showed a correlation of -.089 and a probability of .227. These analyses appear to show that the results of this study were not due to an adequacy factor. Clearly more analysis needs to be conducted to determine if a relationship exists between amount of social support and parenting behaviors and if so, what factors contribute to the relationship.

Intragroup Analysis of Social Support

Since significant findings were found in this study for the dependent variables of satisfaction with social support and parenting behaviors, the investigator felt it was prudent to assess intragroup variations among subgroups of the sample. The empirical literature has found that subgroups of parents may have differing levels of social support because of environmental-societal conditions. Findings have suggested that structural factors operating through the constructs of ethnicity, culture, class, gender and household composition place constraints on the capacity of parents to build networks that adequately support them in their role of child rearing (Cochran and Niego, 1995). These constraints may yield a smaller pool of eligibles from which parents are able to build and maintain personal support networks. "African-American parents, nonethnic White parents, parents with relatively little education, and parents living in cultures shaped by beliefs that lead to narrow definitions of the women's role, all have smaller pools of potential network counterparts. Constraints accumulate for single parents, who often have less access to relatives, further education, jobs

paying a decent salary, and housing in neighborhoods that are supportive of neighboring activities" (Cochran and Niego, 1995, p. 411).

Independent t-tests were run to determine if there were within group differences among the sample for the variable of perceived satisfaction with social support. Analyses were conducted on pre-intervention and post-intervention scores. Key demographics variables were grouped for the analysis. Ethnicity was grouped as 1=Caucasian and 2=minority. The category of "number of children" was grouped as 1=one child and 2=two or more children. Education was grouped as 1=less than a high diploma and 2=earned a high school diploma or higher. Monthly income was grouped as 1=$800 to $1,000 and 2= $1,001 and higher. The variable of household composition was grouped as 1=single parent home and 2=two-parent home. Paternal and maternal ages were grouped as 1=<twenty years of age and 2=twenty years of age and older. Residence was grouped as 1=rural and 2=urban. The category of gender was grouped as 1=male and 2=female.

Contrary to the empirical literature, this study found few statistically significant differences at the pre-intervention phase of this study for the variable of satisfaction with social support. Independent t-tests determined that equal variances were assumed for all the key demographic variables. Pre-intervention equality in groups means can be assumed participant's education (t=.945, p=.347), income (t=1.118, p=.265), ethnicity (t=-1.709, p=.090), gender (t=.-1.076, p=.284), maternal age (t=.400, p=.690), paternal age (t=1.594, p=.115),

number of children in the household (t=1.086, p=.280), family composition (t=1.974, p=.051) and residence (t=-.154, p=.878).

Similarly, post-intervention scores did not indicate any statistically significant differences within subgroups of parents for the key demographic variables. After the intervention, Independent t-tests showed that equal variances were assumed for participant's education (t=1.676, p=.097), ethnicity, (t=-1.955, p=.053), maternal age (t=.472, p=.638), paternal age (t=1.298, p=.198), number of children in the household (t=097, p=.923), monthly income (t=.675, p=.501), ethnicity (t=2,199, p=141), family composition (t=1.395, p=.166) and residence (t=-.503, p=.616) and sex of the parent (t=.-1.551, p=.124).

Intragroup Analysis of Parenting Behaviors

The literature suggests that environmental-societal-personal factors may also impact the way individuals provide care for a child. Belsky's (1984) model on the determinants of parenting posits that parenting is influenced by parent characteristics, child characteristics, and the social network in which the parent-child relationship is embedded. Such parent characteristics as education, income, gender and household composition are known to have an impact on the manner in which caregiving is provided (Belsky, 1984). It was anticipated that as a result of those multiple influences, significant differences might exist within the groups on key demographic variables for the variable of parenting behaviors.

Independent t-tests were run to determine if there were within group differences among the sample for the variable of parenting behaviors. Analysis was conducted at both the pre-intervention and post-intervention stages. This

study showed a few examples of significant differences for pre-intervention parenting behaviors. The variables of income (t=-2.032, p=.045), education (t=-2.480, p=.015) and residence (t=2.012, p=.047) were significantly different at the pre-intervention stage. Parents who reported having less income ($1,000 or less per month) tended to receive lower pre-intervention scores on the HOME Inventory (mean=32.23) than parents who reported earning more than $1000 per month (mean=34.84). Similarly, parents who did not have a high school diploma had lower pre-intervention scores on the HOME Inventory (mean=30.97), than parents who had a high school diploma (mean=34.112). The variable of residence also showed statistically significant differences. Parents who reported living in rural areas tended to have higher pre-intervention scores (mean=34.03) than parents who reported living in urban areas (mean=31.74).

In general, these pre-intervention scores for parenting tend to confirm the literature that suggests that parent characteristics influence parenting practices. Education, income and geographic locations are all characteristics that may influence the manner in which parents provide care for their children.

At the pre-intervention stage, results of independent t-tests did not show statistically significant differences for any of the remaining key demographic variables. This included the variables of ethnicity (t=-.061, p=.951), father's age (t=1.062, p=.292), mother's age (t=-.977, p=.331), number of children in the home (t=.940, p=.349), gender (t=-.318, p=751) and family composition (t=-1.685, p=.100).

Post-intervention scores continued to show a few examples of differences in group means of parenting behaviors. Independent t-tests indicated statistically significant differences in two variables at the end of the research. It is interesting to note that the two variables found significantly different at the end of the study were different than the variables that were different at the beginning of the study. By end of the study, group means for the variables of income, education and residence had equalized for the parents. The variables that were found significantly different at the end of the study were father's age (t=2.236, p=.029) and number of children in the home (t=3.242, p=.002). Independent t-tests determined that equal variances were assumed for the variables of participant's education (t=.740, p=.461), maternal age (t=.607, p=.545), ethnicity (t=-.128, p=.898), gender (t=-.822, p=.413), residence (t=1.410, p=162), household composition (t=-.215, p=.831) and monthly income (t=-1.624, p=.108).

Conclusion

In general the findings from this analysis added support to the empirical literature that suggests that a paraprofessional home-based parent education program can effect the social support and parenting behaviors of limited resources parents. Parents who participated in this type of intervention were found to make more positive changes in their perceived satisfaction with social support and parenting behaviors than parents in a comparison group. These results were supported through two different parenting measures. The results of this study did not support the hypothesis that a home-based parent education program would influence amount of social support for parents.

This study also examined the relationship between social support and parenting behaviors. The findings in this area were inconsistent. There appeared to be some evidence of a moderate positive relationship between perceived satisfaction with social support and parenting behaviors. The study did not find any relationship between amount of social support and parenting behaviors. More research needs to be conducted in this area.

CHAPTER V

DISCUSSION OF RESULTS, CONCLUSIONS AND IMPLICATIONS FOR FUTURE RESEARCH

This chapter is divided into three sections. The first section provides a discussion of the results of this study. This discussion includes a summary of the findings for each hypothesis and its relevance to the literature. The second section of this chapter provides conclusions to this study. This section is an overview of the study and possible reasons for the outcomes, including limitations of the research. The final section of this chapter suggests possible directions for future research and implications for programmatic directions.

Section One: Discussion of Results

The primary purpose of this research was to determine the influence that a paraprofessional, home-visitation parent education program had on parent's perceived level of social support. The research sought to examine the equality of means for parents in a treatment group and parents in a comparison group for social support variables. The main hypothesis was stated as follows:

Main Hypothesis

> Limited resource parents involved in a paraprofessional, home-visitation parent education program will show an increase in levels of perceived satisfaction with social support as compared to limited resource parents in a comparison group.

ANCOVA computations were used to test this hypothesis. The results of the ANCOVA allowed us to reject the null hypothesis for this study's main hypothesis. The group means for perceived satisfaction with social support were

not equal following the treatment. The results had an F of 6.58 for the main effect of group and a significance level of .012.

Because the groups were statistically similar prior to the intervention, it can be suggested that the increase in groups means for the treatment group was due to the paraprofessional, home-based parent education program. This study appears to show that parents who participated in the BSF program between February 1, 1999 and January 30, 2000 experienced increased levels of perceived satisfaction with their social support because of their participation in the program.

Paired t-tests were also conducted to determine changes in group means for specific sources social support. This analysis tested to see if satisfaction with social support changed from pretest levels to posttest levels for different types of support. Twenty sources of formal and informal types of social support were examined. Paired t-test showed that statistically significant changes were found for three sources of social support. Parents were found to have increased levels of satisfaction with their neighbors ($t=2.29$, $p<.026$), their doctor ($t=2.15$, $p<.036$) and with the parenting program ($t=4.70$, $p<.0005$). Other sources of support did not change at a statistically significant level.

One possible reason why this study found changes in parents' satisfaction with their doctor, neighbors, and the parenting program is because the BSF curriculum teaches parents how to strengthen linkages with friends or neighbors. It also facilitates parental networking with formal sources of support, such as

medical personnel and human service agencies. Often parents are encouraged to contact multiple sources of support to accomplish goals and solve problems.

It is difficult to compare the findings of this study's main hypothesis to other findings in the empirical literature because very little is known about the effects of a home-visitation parent education program on parental changes in social support network (Cochran and Niego, 1995; Webster-Stratton, 1997). In the empirical literature, little reference is made to strategies used to change parental levels of social support, decrease families' isolation or promote their involvement or to build a sense of community, either within the group or the larger community. Indeed, few studies report measuring outcomes having to do with social networks or parents' sense of support (Webster-Stratton, 1997). In keeping with this deficit of empirical data, a recent study of home-visitation programs found that social support changes were seldom included as an investigative variable (Gomby, Culross and Behrman, 1999).

Although very little research in the empirical literature has examined the effects of a home-based parent education program on perceived satisfaction with social support, some speculation has occurred by researchers (Gomby, Culross and Behrman, 1999). The findings for this study's main hypothesis support the speculation suggesting that increased satisfaction with parental levels of social support would be associated with a paraprofessional, home-visitation parent education program. The literature has theorized that the key to these findings is the design of the intervention. By using an individualized, one-to-one method for the information delivery it has been anticipated that parents will feel more

supported as a result of the program (Gomby, Culross and Behrman, 1999). The results of this study provide validation to the supposition that paraprofessionals can serve as a type of social support to parents while other external linkages are being strengthened.

In addition to the program design, the investigator also suggests that the content of the BSF program may have helped to accomplish the changes in satisfaction with social support found in this study. The BSF program includes a goal-setting unit that helps the parent better access human and material resources to accomplish goals. Through the use of this curriculum home visitors help facilitate parental satisfaction with social support networks, by serving as a bridge to informal and formal resources.

A third possible element influencing the outcome of this hypothesis was the staff turnover rate during the course of the study. The staff at all of the programs involved in the research project remained stable throughout the study. This allowed the instructors time to form relationships with the program recipients and maintain those relationships throughout the entire program.

Although this research supports the hypothesis that home-based parent education increases parental satisfaction with social support, it does not determine what aspects of the home-based parent education program are the keys to this change. Further research would need to be conducted to determine what caused the changes in group means. Changes may have happened as a result of the delivery method, the content of the instruction, a combination of the two variables or some other unidentified third variable.

Sub-Hypotheses #1

In addition to increases in parent's satisfaction of their current social support, this study also posited that overall levels of social support would increase as a result of participation in a home-based parent education program. Specifically, this study sought to examine changes in equality of means in the area of social support amounts for treatment group parents and comparison group parents. Sub-hypothesis #1 was stated as follows:

> Limited resource parents involved in a paraprofessional, home-visitation parent education program will show an increase in overall amounts of social support as compared to limited resource parents in a comparison group.

Hypothesis testing was conducted through the use of ANCOVA tests. The results of the ANCOVA suggested that the group means for parental amounts of social support were equal following the treatment. These results caused us to accept the null hypothesis. The results had an F of .93 for the main effect of group and a significance level of .336. It appears that home visitors focused more attention on strengthening current sources of social support than adding to the base of support. Possibly, the parents felt more comfortable working within their current spheres of resources.

Another possible reason for the results of sub-hypothesis #1 is the length of the BSF program. The BSF program typically lasts eight to twelve weeks. It is conceivable that this length of time is not long enough for parents to make significant changes in the number of members of his or her social support network. Although the exact number of weeks is not known, researchers do

believe that a minimum threshold needs to be crossed before various changes can occur (Gomby, Culross, and Behrman, 1999). It is possible that in order for changes in quantity of social support network members to occur a larger number of contacts would have to be made with the parents.

A third possible reason why this study did not detect any changes in amount of social support as a result of a paraprofessional, home-based parent education program was because of the instrument used to assess social support changes. The Family Social Support Scale uses pre-determined sources of social support to assess changes. Parents are asked to indicate if the specific sources of social support on the scale are available to him or her. It is possible that the social supports listed on the instrument are not the ones being utilized by the parent. Perhaps a less-structured activity that asks the parent to identify sources of support that they regularly use to assist them in providing care for their child would be a more effective method of identifying people that the parent thinks is important to him or her.

A fourth possible reason for the results of sub-hypothesis #1 might have been community barriers to building additional linkages in personal social support networks. It would be worthwhile to investigate if environmental barriers, such as lack of community services or access restrictions to services were affecting parent's ability to follow through on goals to increase membership within personal social support networks.

Another area that needs further research to truly assess the results found for sub-hypothesis #1 is a possible pre-disposition of parents that determines the

size of their personal social support network. It is conceivable a parent characteristic, such as their level of social skills, may be the factor determining the size of the parent's personal social support network. If a personal characteristic is the determining factor to the parent's social support network then the curriculum would need to work on developing social skills. The BSF curriculum assumes that the parent already has some social skills. It simply encourages the parent to use his or her social skills by helping to break goals down into small achievable steps and then identifying resources to help the parent accomplish the steps.

Sub-Hypothesis #2

Another important parental outcome of involvement in a paraprofessional, home-visitation parent education program is changes in parenting behaviors. This study endeavored to examine the equality of group means in parenting behaviors for parents in a treatment group and parents in a comparison group. Sub-hypothesis #2 was stated as follows:

> Limited resource parents involved in a paraprofessional, home-visitation parent education program will show an increase in positive parenting behaviors as compared to limited resource parents in a comparison group.

Parenting behaviors were measured through two different instruments. One instrument was the Parenting Behavior Assessment (PBA). ANCOVA tests were run to test the sub-hypothesis #2 using the PBA. The results of an F of 4.89 for the main effect of group and a significance level of .029 allowed us to reject the null hypothesis for sub-hypothesis #2. The group means for parenting behaviors were not equal between the treatment group and the comparison group.

The HOME inventory was selected as a second assessment of parenting behaviors. Initial analysis on the equality of groups means for parenting behaviors as assessed through the HOME were conducted using ANCOVA tests. The results of the ANCOVA allowed us to continue to reject the null hypothesis for sub-hypothesis #2. The group means for parenting behaviors were not equal following the treatment. The main effect for group had an F of 76.23 and a significance level of .0005.

The results of this study seem to suggest that the increase in group means for the treatment group was due to the paraprofessional, home-based parent education program. This evidence appears to show that parents who participated in the BSF program between February 1, 1999 and January 30, 2000 demonstrated increases in parenting behaviors.

The findings of this hypothesis support the empirical literature that suggests that home-based parent education programs are an effective means of changing parenting behaviors. Studies showing evidence in support of changes in parenting behaviors have associated this delivery method with increased parent-child interaction (Daro and Harding, 1999), maternal parenting efficacy (Duggon, McFarlane, Windham, Rohde, Salkever, Fuddy, Rosenberg, Buchbinder and Sia, 1999); maternal-child attachment (Jacobson and Frye, 1991), child IQ (Blair, Ramey and Harden, 1995; Liaw, Meisels and Brooks-Gunn, 1995), maternal involvement (Boger, Richter, Hurnetz and Haas, 1986), better prenatal care and fewer pre-term births (Rogers, Peoples-Sheps and Suchindran, 1996).

The use of two methodologically different parenting instruments added strength to the study. The investigator suggests that more confidence can be placed in the results found in sub-hypothesis #2 because the data was assessed through the use of parental self-report measures and an instrument based on observation. Triangulation of data collection methods helped to validate the results.

Another possible element that contributed to the results of the sub-hypothesis #2 was the methodology of assessing the parenting behaviors of comparison group parents in their home. Although it was difficult for the instructors to make home visits to people who were not actually on their case load, the investigator believes that the extra home calls helped the instructors more accurately assess the parenting behaviors of participants in the comparison group, both at the pre-intervention phase and at the post-intervention.

Although this research supports the hypothesis that home-based parent education promotes changes in parenting behaviors, it is still not understood what aspects of the delivery cause the changes. Specifically it is not known if the changes are due to the curriculum of the BSF program, to the home visitation model or the interaction of the two. Also, if the changes can be attributed to a specific part of the intervention, we do not know what aspects caused the change. For example, if the changes are due to the home-visitation model of delivery, further investigation needs to be done on what pieces of that model create the change. Critical questions still need to be answered regarding the optimal conditions for home-visitation programs, including program protocol, such

as the number, intensity, frequency and content of visits; staffing experience, supervision and training; recipient characteristics and evaluation procedures (Gomby, Culross, and Behrman, 1999).

Secondly, if it discovered that the curriculum is the determining factor for creating changes in parenting behaviors for parents, we still do not know what aspects of the curriculum created the change. Clearly much more research needs to be conducted in this area.

Sub-hypothesis 3

Another important area of study within this research was the relationship between satisfaction with social support and parenting behaviors. Specifically this research assessed the relationship between satisfaction with social support and parenting behaviors. Sub-hypothesis #2 was stated as follows:

> There is a positive relationship between perceived satisfaction with social support and supportive parenting behaviors in limited resource parents.

Pearson Product Moment correlation was conducted for satisfaction with social support and parenting behaviors to determine the relationship between the two variables. Since the hypothesis anticipated a positive relationship between the variables, a one-tailed correlation was computed. Although the correlations showed mixed results, three out of the four correlations were statistically significant. The results of this study appear to suggest that there may be a positive relationship between satisfaction with social support and parenting behaviors.

The inconsistent results of this study lead the investigator to suggest that more research needs to be done in this area. Although it can be stated that this

study has found changes in social support and parenting behaviors as a result of involvement in a home-based parent education program, the basis of the change is still unclear. Even though the findings do not negate that a relationship with social support may be involved, the results do not present a definitive answer. The changes may actually be a result of some other variable, such as characteristics of the parent or developmental history.

Sub-Hypothesis #4

A final area of study within this research was the relationship between amount of social support and parenting behaviors. This study analyzed the relationship between amount of social support and parenting behaviors through sub-hypothesis #4. Sub-hypothesis #4 was stated as follows:

> There is a positive relationship between overall amounts of social support and supportive parenting behaviors in limited resource parents.

Correlations were computed for amount of social support and parenting behaviors to determine the relationship between the two variables. The test used for this analysis was Pearson Product Moment Correlations. A one-tailed correlation analysis was used because the hypothesis predicted a positive relationship between the two variables.

This study did not find a relationship between amount of social support and parenting behaviors. The results of this analysis appear to suggest that the size of the personal social network is not a determinant of positive parenting behaviors. Although there has been some support in the empirical literature regarding the relationship between social support amounts and parenting behaviors, not all of the research has found this relationship to be valid. This is

another area in which further research needs to be conducted in order to determine whether or not there is a relationship between amount of social support and parenting behaviors.

Section Two: Summary

The purpose of this research was to examine the effects of a paraprofessional, home-visitation parent education program on the social support and parenting behaviors of limited resource parents. This research also explored the correlation between social support and parenting behaviors.

This study hypothesized that limited resource parents involved in a paraprofessional, home-visitation parent education program would show an increase in levels of perceived satisfaction with social support as compared to limited resource parents in a comparison group. It also suggested that parents in the treatment group and comparison group would show differences in the amount of their social support and in their parenting behaviors as a result of participation in a paraprofessional, home-visitation style parenting class. Further, the study hypothesized that the results would show relationships between the variables of perceived satisfaction with social support, overall amounts of social support and supportive parenting behaviors in limited resource parents.

The study's hypotheses were based on a model of the determinants of parenting (Belsky, 1984). This model of parenting behaviors posits that social support networks are one of the determinants of parenting behaviors. Belsky (1990) suggests that caregivers with more social support tend to provide more sensitive and positive care to their children. "The social support can serve as a

buffer against the stress of difficult child characteristics or environmental challenges. Conversely, low levels of social support have been associated with inconsistent parenting, increased punitiveness, decreased use of reasoning as a discipline strategy and fewer parental rewards" (Whipple and Webster-Stratton, 1991, p. 88).

This study sought to add to the field of knowledge about parenting determinants by exploring two unresolved aspects. The first area this study investigated was the effects of a single type of social support (home-based parent education) on the overall level of parental social support. This aspect of the study examined the effects of home-based parent education on the quantity and type of social support

The second unresolved area this study examined was the effectiveness of using paraprofessional, home-visitation as a form of social support to help parents improve parenting skills. This area of study looked at the direct effects of home-visitation parent education on the parenting behaviors of limited resource parents.

One hundred and twenty-three parents of children ages birth to three years participated in the study between February 1, 1999 and January 30, 2000. Parents were from six counties in Michigan. Parents lived in a mixture of urban and rural area. Sixty-three of the parents were involved in the treatment group and completed the BSF parent education program. Sixty parents were involved in the comparison group and did not participate in any type of intervention.

Data was collected using the Family Support Scale, Parenting Behavior Assessment and the HOME inventory. Data collection occurred pre-intervention and post-intervention for all of the parents. Data analysis was conducted using ANCOVA computations and Pearson Product Moment correlations.

The results of the ANCOVA tests found significant differences at the .05 level of probability for the variables of perceived satisfaction with social support and parenting behaviors. ANCOVA tests did not find significant differences between group means for the variable of amount of social support.

Further, the results of the correlations were inconsistent. There appeared to be some relationship between perceived satisfaction with social support and parenting behavior. The findings did not confirm a relationship between amount of social support and parenting behaviors.

Section Three: Conclusions, Future Research and Implications for Programmatic Directions

In general the results of this study are consistent with the empirical literature that have found an association between satisfaction with social support and parenting behaviors. In keeping with the findings of this research, the literature suggests that supportive social support networks can enhance parental feelings of well-being and parenting behaviors (Cole, Kitzman, Olds and Sidora, 1998; Crockenberg, 1988; Cochran and Brassard, 1979; Dunst, Trivette, and Deal, 1994)

More specifically this study found an association among paraprofessional home-based parent education, as a form of social support, and changes in parenting behaviors and satisfaction with social support. The results of this study

support the use of a paraprofessional, home visitation style of parent education in order to facilitate changes in parenting behaviors and satisfaction levels of social support in limited resource parents. It is interesting to note that changes in satisfaction with social support only occurred in three out of the twenty variables listed on the Family Support Scale and that the variables influenced by the parent education program were a mixture of formal and informal sources of social support. Since the focus of the home-based program was on parenting, perhaps the social support resources most highly emphasized in instructor-parent discussions were child related resources, such as a doctor, parenting instructor or a neighbor who might provide instrumental support in caregiving.

It is also important to examine the results of the hypotheses that were not confirmed in this study. Results did not show a relationship between a paraprofessional, home visitation parent education program and changes in amount of parental social support. These results may be a confirmation that an association does not exist between these two variables. Or, they may be a consequence of limitations in the research methodology or the parent education design used in this study. Limitations may be attributed to several possible variables, including 1) the social support measure that was used to assess amount of social support, 2) the length or other design elements of the parent education program, 3) the curriculum of the parent education program, 4) environmental inhibitors, such as a lack of community resources, or 5) an emphasis on the wrong determinant of social support networks. It is possible

that the strongest determinant of the size of personal social support networks is personal characteristics.

The study also found inconclusive results when investigating a relationship between satisfaction with social support and parenting behaviors and no relationships between amount of social support and parenting behaviors. One possible reason for the lack of support for the hypotheses on relationships between social support and parenting behaviors was the size of the sample. Since three out of four correlations found statistically significant results for the relationship between satisfaction with social support and parenting behaviors, it is possible that a larger sample would provide more power to detect a small relationship.

Suggestions for Future Research

These conclusions lead us to the questions of what caused the specific results of this study to occur and what research might be conducted in the future to add further clarification to the topic of parenting determinants. Additional research needs to be conducted on the specifics of how and why changes occur when parents participate in a home-based parent education program. Investigators need to examine program protocol and content to determine the effects of each component of the home visitation model and delivery.

Several types of research could be conducted to provide valuable support to the effectiveness of paraprofessional home-based parent education programs. Research should be implemented comparing the effectiveness of paraprofessional instruction versus professional instruction. It has been posited

that paraprofessionals have a unique ability to form relationships with limited resource parents (Gomby, Culross and Behrman, 1999; Gomby, Larson, Lewitt, and Behrman.1993; Hattie, Sharpley and Rogers, 1984; Hiatt, Sampson, and Baird 1997). Other researchers assert that professional instructors, such as nurses, are more effective in promoting parental change (Olds, Henderson Jr., Kitzman, Eckenrode, Cole and Tarelbaum, 1999; Olds, Henderson Jr., Kitzman, Eckenrode, Cole and Tarelbaum, 1998; Olds, and Kitzman, 1993. Further research is needed in order to clarify this issue.

Another important area of research would be a study of the effectiveness of paraprofessional parent education that is home-based, compared to parent education that is group-based, center-based, clinic-based or multiple combinations of these methods. It has been hypothesized that a key to the effectiveness found in this study was the home-based form of information delivery. However, another important element of this study was the program goals to reduce isolation and form network connections. It would be interesting to see if home-based delivery is unique in accomplishing these goals. Perhaps a combination of home-based delivery and group interaction would further support these goals.

A third form of future research is in the area of program recipients. This study focused on limited resource parents of children, ages birth to three years. In actuality, parents of children in all age groups and from all incomes have experienced diminished levels of social support in this society and need assistance raising their children. Further study needs to be conducted on the

effectiveness of a paraprofessional, home-based parent education program with parents of different age children and from diverse income levels.

Belsky's model of parenting determinants (1984) suggests that social support directly and indirectly influences parenting behaviors. Social support has been posited to indirectly effect parenting behaviors through the variable of parent characteristics/personality. Future research could provide evidence for this supposition by making parent characteristics, such as sense of well-being or self-esteem, one of the dependent or mediating variables in future examinations of the effectiveness of paraprofessional, home-based parent education in changing social support and parenting behaviors.

Also, an assessment of the parent's level of social skills would be a valuable addition to this field. It would be important to assess whether or not people are pre-disposed to a certain size of personal social support network based on their level of social skills. Additional research could then look to see if that pre-disposition could be changed through education.

A sixth recommendation for additional research is to expand this study to other home-based programs. It is possible that parents who become involved in the BSF parenting program at Michigan State University Extension are different from parents who participate in other home-visitation parent education programs. Until other home-visitation parent education programs confirm the results, the findings in this study are only generalizable to those parents who participate in the Michigan State University Extension BSF program.

Another recommendation for future research is the need to investigate the long-term effects of a home-based parent education program. Although this research was able to document short-term changes in satisfaction with social support and parenting behavior, it is not known how long the changes last. In order to document long-term change, a longitudinal study would need to be conducted with parents who participate in this intervention. It would be interesting to see if changes in parenting behaviors and social support were sustained one to five years after the intervention. If the participant was the parent of the newborn baby at the time of the intervention, five years post-intervention would be a time of life transition where the child would be entering school and the parent and child would be encountering forces that could impact personal social support networks. An assessment of treatment group parents and comparison group parents would be valuable prior to parent and child's commencement into the life transition stage of school entry.

A eighth recommendation for additional research is the examination of child outcomes related to the influence of a paraprofessional, home-based parent education program. Belsky's model of parenting determinants (1984) suggests that the parenting behaviors directly impact child characteristics. It would be important to examine the influence of changes in parenting behaviors on the child. Research could be conducted to assess changes in the child's social, physical, emotional or cognitive capabilities as a result of changes in parenting practices.

Recommendations for Future Programmatic Directions

The findings of this study can help guide the direction of parent education for limited research parents of young children. This study found that a paraprofessional, home-based parent education program was effective in creating changes in parental satisfaction with social support and parenting behaviors. Currently administrators and staff in public policy and programming systems are struggling to make decisions regarding how best to provide parenting information to parents. This research seems to suggest that the use of a paraprofessional, home-based model of parent education is programmatically a good decision for families.

Further, since increased levels of social support appear to be associated with more positive parenting behaviors, program decision-makers may want to consider broadening their parent education program to include social support strengthening units. Program administrators may want to add such elements as training in interpersonal communication skills, problem-solving, and understanding ways to build support so that both within family support and external sources of support may be enhanced in the family unit (Webster-Stratton, 1997).

In addition to adding elements for parental enhancement of social skills, programs may want to add an unstructured tool to help instructors and parents focus on building resources. This tool would also help the program assess changes in parents' personal social support networks.

Another conclusion of this study was that a triangulation of methods to assess parental behaviors helped to strengthen the results of the study. The recommendation can be made to incorporate both self-report and observation forms of evaluation into the protocol of programs. The BSF program may want to add a simple observation tool, such as the HOME Inventory, to their regular program assessment.

The BSF program may also want to add to the intake form some questions regarding participant's motive for enrolling intake form. For example, in the study it would have been useful to assess the responses of court-mandated parents and compare their information to the information supplied by parents who voluntarily became enrolled in the program. This type of information would further our understanding of the contribution that motivation to participate makes to the effectiveness of the treatment.

A final suggestion for programmatic directions is to incorporate varying lengths into the parent education delivery. A conclusion of this study was that the length of the BSF program may not have been long enough to allow parents to experience changes in the size of their personal social support network. Programs of varying lengths will help to clarify the threshold of minimum number of contacts that are needed in order to create various types of changes in parenting behaviors.

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APPENDICES

APPENDIX A

Invitation Letter and Interest Form

MEMO

To: Extension Home Economists
Building Strong Families Instructors
From: Dawn Contreras
Program Leader
RE: BSF Research Project

I would like to invite you to participate in a short-term Building Strong Families research project. The purpose of this research will be to explore the influence of the Building Strong Families program on the social support of our participants. We will be looking at both the amount of social support parents have, as well as their satisfaction with the support. The research project will only last for sixteen weeks or until we have data on 120 families. The details of the research project are listed below:

Details of the research project:

- ✓ All participants will complete the regular BSF evaluation
- ✓ In addition, participants will complete a **one-page checklist** on the type of social support they receive. This checklist will be completed twice, once at the beginning of the program and a second time at the end of the program.
- ✓ Instructors will be asked to observe participants during the initial and final visit of the program and fill out a checklist on parenting behaviors.
- ✓ Families on the county's waiting list will participate in the research while they are waiting to become part of the BSF program. These families will serve as a comparison group.
- ✓ All families who participate will receive either a **$10.00 gift certificate** or an actual gift as a thank you for their hard work.
- ✓ Counties will receive a research report showing how the Building Strong Families program can reduce isolation, increase social support levels and improve parenting skills.

We will hold an **informational meeting and kick-off event** right after the January 14 BSF management meeting. At that meeting I will answer any further questions you may have and distribute the social support checklist and instructors' observation form. We hope you will consider becoming a part of this project. Please fax back the attached interest form regarding this endeavor.Thanks so much for your support. Happy New Year! See you on January 14!

Building Strong Families Research Project
Interest Form

Your Name: _____

Your County: _____

_____ Yes, I would like to a part of this short-term BSF research project and I will be at the January 14th informational meeting at 3:00 p.m. in the MSU Union Building.

_____ I would like to be a part of this short-term BSF research project, but I am not able to attend the January 14th informational meeting.

_____ No, I am not interested in participating at this time.

Please fax this form back to Dawn Contreras at 517-353-6343 or send it to 103 Human Ecology Building, East Lansing, MI 48824.

APPENDIX B

Follow-Up Letter

January 15, 1999

TO: Barbara Neuman, Huron County
Susan Romain, Huron County
Kathy Burk, Hillsdale County
Alice McElroy, Lenawee County
Renita Ivory, Macomb County
Beverly Hamilton, Macomb County
Margarita Guzman, Macomb County
Kathy Hale, Sanilac County
Gail Innis, Sanilac County
Mary Schommer, Sanilac County
Chris Dutcher, Sanilac County
Darci Currier, Tuscola County

FROM: Dawn Contreras
Program Leader

RE: Building Strong Families Research Project

Thank you so much for expressing interest in our short-term Building Strong Families research project! The purpose of this research is to investigate how involvement with the BSF program changes the social support of our participants. We suspect that parents who complete the BSF program are much more able and willing to become involved with other types of social support in their communities, as a result of their experiences with you.

This type of social support research is important because it proves that contact with our parenting program reduces isolation and increases resources for our parents. Since isolation is a major determinant of child abuse and neglect, we can also say that contact with our program helps prevent the abuse/neglect of young children!

To participate in this research project your parents will be asked to fill out a short, one-page **family support survey**. This survey will be **in addition** to the regular BSF evaluation that we do with all families. This includes asking parents to sign the regular consent form that stays in your county.

A white copy of the Family Support scale is included in this packet. Please use this white copy to make as many copies of the survey as needed for your families. This survey will be completed during the initial and final visits with the family.

At the top of the Family Support Scale you will notice a participant ID space. Just fill in the regular ID number you would assign to this family upon enrollment in the program.

There are also boxes to show if this family is enrolled in BSF or a control family. Please place a check in the box that shows the status of the family. **Control families** are those families that have indicated an interest in BSF, but need to be placed on a waiting list. For this research project, please make an initial visit to every family on your waiting list and do a pre-assessment with them, using the family support scale and the parenting assessment scales. Then, when you are able to enroll them in BSF, ask the families to complete the assessment a second time as you kick off the BSF program. These families will serve as our comparison group. No further evaluation is needed with these families.

The second instrument in this packet in a parenting checklist, called the **HOME Inventory**. This checklist is completed by you, the instructor. We are including it because our current parenting assessment is a "self-report" learning tool activity. We are interested in knowing if what you observe in the home agrees with what the parent reports. There is a beige colored manual that accompanies the HOME inventory. Please review the manual prior to conducting your first visit. It answers many questions about the specific items. Also, you will need to ask the parent about a few of the items. I have outlined some questions that might be included in a short interview. These questions are attached to the back of the Home Inventory checklist.

A white copy of the HOME inventory is included in this packet. Please feel free to make copies of this checklist. You will need two copies per family. One copy will be completed at the pre-assessment and a second one will be completed at the post-assessment.

To thank your parents for participating in this research project we would like to give them a **$10.00 gift certificate**. Both enrolled BSF families and control families will be thanked with this gift. As soon as I receive the pre-test forms on a family, I will send you a gift certificate. That way you will have it in hand when the families complete the post-tests. I will be ordering gift certificate for both Meijers and Kmart. Please let me know if you have a preference for one store or the other.

You may begin using these instruments as soon as you receive this packet. The project will continue for about sixteen weeks or until we are able to reach a minimum of 60 enrolled families and 60 control families.

Please don't hesitate to contact me if you have any questions. Again, thank you so much for your participation! It is a terrific way to help families with young children!

APPENDIX C

Family Record Form

BUILDING STRONG FAMILIES
FAMILY RECORD FORM

Date of Enrollment: **Referral From:**

Sex of caregiver who participates in the program: ☐ Male
☐ Female
☐ Pregnant
☐ Breastfeeding

Family Composition:
☐ Single parent
☐ Two parent
☐ Extended family
☐ Foster Parent
☐ Other

Ethnicity:
☐ White
☐ African-American
☐ American Indian
☐ Asian
☐ Multi-cultural

Residence:
☐ Rural
☐ Urban

Monthly Income:
☐$800 or less
☐$800-$1,000
☐$1,000-$1,200
☐$1,200 or more

Education:
Last grade completed:
_____

Participation In:
☐AFDC
☐Commodities
☐Food Stamps
☐Head Start
☐WIC

Household Members	Age	Relationship to Participant

APPENDIX D

Family Support Form

Family Support Scale

County _____ **Instructor** _____

Participant I.D. _____ **Check one**: Enrolled BSF ❑ or Control ❑

Listed below are people and groups that often are helpful to members of a family raising a young child. This questionnaire asks you to indicate how helpful each source is to your family. Please circle the response that best describes how helpful the sources have been to your family during **the past month**. If a source of help has not been available to your family during this period of time, circle NA (not available) response.

How helpful has each of the following been to you in terms of raising your children	Not Available	Not at All helpful	Sometimes helpful	Generally helpful	Very helpful	Extremely helpful
My parents	NA	❑	❑	❑	❑	❑
My spouse or partners' parents	NA	❑	❑	❑	❑	❑
My relatives/kin	NA	❑	❑	❑	❑	❑
Spouse or partner	NA	❑	❑	❑	❑	❑
My friends	NA	❑	❑	❑	❑	❑
My spouse or partner's friends	NA	❑	❑	❑	❑	❑
My own children	NA	❑	❑	❑	❑	❑
Other parents/neighbors	NA	❑	❑	❑	❑	❑
Co-workers	NA	❑	❑	❑	❑	❑
Parent groups	NA	❑	❑	❑	❑	❑
Social groups/clubs	NA	❑	❑	❑	❑	❑
Church members/minister	NA	❑	❑	❑	❑	❑
My family/child's doctor	NA	❑	❑	❑	❑	❑
School/day care	NA	❑	❑	❑	❑	❑
Parenting program (Extension/Headstart..)	NA	❑	❑	❑	❑	❑
Food programs (EFNEP, FIA)	NA	❑	❑	❑	❑	❑
Help with money (FIA, other)	NA	❑	❑	❑	❑	❑
Help with housing	NA	❑	❑	❑	❑	❑
Help with employment	NA	❑	❑	❑	❑	❑
Other sources of help (Specify) _____	NA	❑	❑	❑	❑	❑

APPENDIX E

HOME Inventory

HOME INVENTORY

Place an "x" in the box alongside each item if the behavior is observed during the visits or if the parent reports that the item is true about his/her home. Enter the subtotal and the total on the form.

1. Emotional/Verbal Responsivity

Parent spontaneously vocalized to child twice.	
Parent responds verbally to child's verbalizations.	
Parent tells child name of object or person during visit.	
Parent's speech is distinct and audible.	
Parent initiates verbal exchanges with visitor.	
Parent converses freely and easily.	
Parent permits child to engage in "messy" play.	
Parent spontaneously praise's child at least twice.	
Parent's voice conveys positive feelings toward child.	
Parent caresses or kisses child at least one.	
Parent responds positively to praise of child offered by visitor.	

2. Acceptance of Child's Behavior

Parent does not shout at child.	
Parent does not express annoyance with or hostility to child.	
Parent neither slaps nor spanks child during visit.	
No more than one instance of physical punishment during past week.	
Parent does not scold or criticize child during visit.	
Parent does not interfere or restrict child more than 3 times.	
At least ten books are present and visible	
Family has a pet.	

3. Organization of Environment

Substitute care is provided by one of three regular substitutes	
Child is taken to grocery store at least once/week.	
Child gets out of house at least four times/week.	
Child is taken regularly to doctor's office or clinic.	
Child has a special place for toys or treasures	

4. Provision of Play Materials

Muscle activity toys or equipment	
Push/pull toys	
Stroller or walker, kiddie car, scooter or tricycle	
Parent provides toys for child during visit	
Learning equipment appropriate to age—cuddly toys or role-playing toys	
Learning facilitators—mobile, table/chairs, high chair, play pen.	
Simple eye-hand coordination toys	
Complex eye-hand coordination toys	
Toys for literature and music	

5. Parental Involvement with Child

Parent keeps child in visual range, looks at often.	
Parent talks to child while doing household work.	
Parent consciously encourages developmental advance.	
Parent invests maturing toys with value via personal attention.	
Parent structures children play periods.	
Parent provides toys that challenge to develop new skills.	

6. Opportunities for Variety

Father provides some care daily.	
Parent read stories to child at least three times weekly.	
Child eats at least one meal per day with mother and father.	
Family visits relatives or receives visits once a month or so.	
Child has 3 or more books of his/her own.	

TOTAL SCORE	

APPENDIX F

Parenting Behavior Assessment Scoring Form

Parenting Behavior Scoring Form: **Participant Number:** **Age of Child:**

Description	Pre	Post	Description	Pre	Post
I encourage my child to do things with her hands.			I talk to my child about how things look or how things happen.		
I provide things for my child to play with.			I set limits for my child.		
I encourage my child to play with other children			I give my child time to calm down.		
I encourage my child to feed himself.			I take my child to the doctor or clinic when he is sick.		
I make up games for my child to play.			I look at books with my child.		
I help my child to be comfortable around other people.			I help my child feel safe and secure.		
I encourage my child to play pretend.			I act calm when my child has a tantrum.		
I get involved with my child in active play.			I give my child a chance to get exercise.		
I talk to my child throughout the day.			I listen to my child.		
I encourage my child to do things on her own.			I enjoy spending time with my child.		
I praise my child.			I spank my child when he misbehaves.		
I take my child to the doctor or clinic for regular check-ups and shots.			I allow for both quiet and active times.		
I encourage my child to make sounds or talk to me.			I play games with my child.		
I try to teach my child through example.			I let my child make choices.		
I comfort my child when he cries.			I discipline my child without spanking.		
I encourage my child to explore safely.			I kiss, hug and/or hold my child everyday.		

Scale: 5: Always, 4: Often, 3: Sometimes, 2: Seldom, 1: Never

APPENDIX G

UCRIHS Approval Letter

MICHIGAN STATE
UNIVERSITY

January 4, 1999

TO: Dr. Dawn Contreras

103 Human Ecology

RE: IRB # 94564 CATEGORY: 1-C

TITLE: THE INFLUENCE OF A PARAPROFESSIONAL, HOME VISITATION PARENT EDUCATION PROGRAM ON THE PARENTING BEHAVIORS AND SOCIAL SUPPORT OF LIMITED RESOURCE PARENTS

ANNUAL APROVAL DATE: February 27, 1998
REVISION REQUESTED: December 18, 1998
REVISION APPROVAL DATE: January 4, 1999

The University Committee on Research Involving Human Subjects' (UCRIHS) review of this project is complete and I am pleased to advise that the rights and welfare of the human subjects appear to be adequately protected and methods to obtain informed consent are appropriate. Therefore, the UCRIHS APPROVED THIS PROJECT'S REVISION.

RENEWALS: UCRIHS approval is valid for one calendar year, beginning with the approval date shown above. Projects continuing beyond one year must be renewed with the green renewal form. A maximum of four such expedited renewals possible. Investigators wishing to continue a project beyond that time need to submit it again for a complete review.

REVISIONS: UCRIHS must review any changes in procedures involving human subjects, prior to initiation of the change. If this is done at the time of renewal, please use the green renewal form. To revise an approved protocol at any other time during the year, send your written request to the UCRIHS Chair, requesting revised approval and referencing the project's IRB# and title. Include in your request a description of the change and any revised instruments, consent forms or advertisements that are applicable.

PROBLEMS/CHANGES: Should either of the following arise during the course of the work, notify UCRIHS promptly: 1) problems (unexpected side effects, complaints, etc.) involving human subjects or 2) changes in the research environment or new information indicating greater risk to the human subjects than existed when the protocol was previously reviewed and approved.

If we can be of further assistance, please contact us at 517 355-2180 or via email: UCRIHS@pilot.msu.edu.

Sincerely,

David E. Wright

David E. Wright, Ph.D.
UCRIHS Chair

DEW: db

cc:

OFFICE OF
RESEARCH
AND
GRADUATE
STUDIES

University Committee on
Research Involving
Human Subjects
(UCRIHS)

Michigan State University
46 Administration Building
East Lansing, Michigan
48824-1046

517/355-2180
FAX: 517/353-2976

APPENDIX H

Parent Consent Form – Treatment Group

Michigan State University Extension
Children, Youth and Family Programs

Parent Consent Form
Building Strong Families Participant

Name of Parent _____

Participant 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 still available should you choose not to participate. You have the right to refuse to answer any question or even refuse to participate at any time, without penalty.

Information collected will be kept confidential to the maximum extent of the law.
Your name will not be put on any of the evaluation forms. The forms will be kept separate from anything that would allow someone to link responses to your name. Also, no individual responses will be used when reporting the results of this evaluation. You may receive a copy of the evaluation results by calling Dawn Contreras at 517-355-6586.

The evaluation will take about 20 to 30 minutes of your time. It involves completing a parenting-skills assessment at the beginning of the Building Strong Families program. You will also be asked to complete the same forms at the end of the program. If at any time you have questions or concerns about this evaluation, you may call Dawn Contreras at 517-355-6586 or Dr. Wright at 517-355-2180.
I agree to voluntarily participate in this research project:

Signature of Parent _____

Date _____

APPENDIX I

Parent Consent Form – Comparison Group

Michigan State University Extension
Children, Youth and Family Programs

Parent Consent Form - #2

Name of Parent _____

Participant 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 still available should you choose not to participate. You have the right to refuse to answer any question or even refuse to participate at any time, without penalty.

Information collected will be kept confidential to the maximum extent of the law. Your name will not be put on any of the evaluation forms. The forms will be kept separate from anything that would allow someone to link responses to your name. Also, no individual responses will be used when reporting the results of this evaluation. You may receive a copy of the evaluation results by calling Dawn Contreras at 517-355-6586.

The evaluation will take about 20 to 30 minutes of your time. The evaluation will take place while you are waiting to become involved with the Building Strong Families program. It involves completing an initial parenting-skills assessment and a social support inventory today. Then, in the next 1-2 months, you will be asked to complete the same forms a second time. To thank you for your participation in this evaluation, you will receive a $10.00 gift certificate after the final forms have been completed.

If at any time you have questions or concerns about this evaluation, you may call Dawn Contreras at 517-355-6586 or Dr. Wright at 517-355-2180.
I agree to voluntarily participate in this research project:

Signature of Parent _____

Date _____