

Can Home Visitation Enhance Maternal Social Support?

Karen McCurdy¹

Human Development and Family Studies, University of Rhode Island

This study investigates the impacts of Healthy Start, a statewide, home visitation program, on the social support systems of 212 disadvantaged mothers in Oahu, Hawaii. Maternal support was assessed at the time these mothers gave birth and 12 months later with the Maternal Social Support Index. Comparisons of mothers randomly assigned to visited (n = 108) or nonvisited (n = 104) conditions uncover few differences on structural or affiliational aspects of support after 12 months. Visited mothers, however, are significantly less likely to report a decline in satisfaction with a close adult than nonvisited mothers do. The discussion examines the challenges of fostering social support and the ability of home visitation efforts to achieve this outcome.

KEY WORDS: home visitation; social support; child abuse prevention; at-risk parents.

Recently, the fields of child development and child maltreatment have coalesced around the belief that enhancing the social support systems of families will influence parent behavior. These theories posit that increased social support will reduce parental stress, thereby encouraging more nurturing and stimulating parenting (McLoyd, 1990). Further, research demonstrates that access to a supportive figure can prevent the use of detrimental forms of parenting (Erikson, Egeland, & Pianta, 1989; Rutter, 1987). Given the protective nature of social support, a current dilemma is identifying successful strategies for enhancing parental support. In recent years, researchers have pointed to home visitation programs as a promising intervention method for fostering social support. This study represents one of the first attempts

¹To whom correspondence should be addressed at Human Development and Family Studies, University of Rhode Island. 2 Lower College Road, Kingston, Rhode Island 02881; e-mail Kmccurdy@uri.edu.

to explicitly examine the hypothesis that participation in a home visitation program will increase maternal social support among disadvantaged mothers. More specifically, the ability of Hawaii's Healthy Start statewide, home visitation program to foster these mothers' social networks is investigated.

Proponents of home visitation have argued that the unique characteristics of this service can reduce the social isolation that place some families at risk for adverse parenting (Garbarino, 1977; Gaudin, Polansky, Kilpatrick, & Shilton, 1993). Home visitation is presumed to overcome many obstacles to service participation. First, the proactive nature of home visitation means that the initiation of service is not dependent on the recipient's help-seeking behavior. Instead of waiting for the family to signal an interest in assistance with child rearing, the visitor reaches out to families. Second, the support occurs in a private and familiar setting, the family's home (Daro, 1988). Parents can avoid discussing problems in front of strangers, as may occur in a group setting (Slaughter-Defoe, 1993), and the parent does not have to venture into unfamiliar territory to receive the service. Further, home visiting can overcome some concrete barriers that result in isolation or reduced help-seeking behavior such as lack of child care and difficulties with transportation (Thompson, 1995; Weiss, 1993). Finally, the presence of the visitor in the home affords the opportunity to observe the parent's current support network, identify sources of strength and areas of concern, and structure services accordingly.

Specific aspects of Hawaii's Healthy Start program may serve to facilitate a positive impact on social support. Thompson (1994) contends that the social distance between the provider and recipient moderates the impact of the service with proximal providers exerting more influence than distal providers do. By employing paraprofessionals from the community in the home visitor role, the Healthy Start program decreases the social distance between the client and visitor. Thus, the home visitor shares many of the same cultural and demographic characteristics as the family, features that are presumed to increase both the family's openness to the home visitor and willingness to engage actively in the service (Wasik, 1993). Additionally, the Healthy Start program emphasizes the use of creative outreach to overcome initial aversion on the part of the prospective recipient. During the first 3 months of the service, the home visitor will make consistent and repeated efforts to engage the family in the program, even if rebuffed by the parent. This intensive effort to engage families is designed to break down the barriers produced by previous negative experiences with or distrust of formal service providers or both.

Finally, a primary goal of the Healthy Start program is "to expand the family's personal and community support system" (Hawaii Family Stress Center, 1994, p. 16). Home visitors are instructed to provide concrete

assistance and crisis intervention to the mother, especially during the first few months of service; show emotional support through nonjudgmental listening and praise; make referrals to community support services (Hawaii Family Stress Center, 1994); and assist the mother with identifying and, subsequently, using another source of positive support other than the home visitor. Thus, home visitors specifically strive to impact both relational and material aspects of the mother's support system (Thompson, 1995). The Healthy Start program also offers parent support groups on a regular basis as another method to reduce social isolation and facilitate the creation of a supportive network among the mothers. These groups provide the opportunity for the mothers to establish personal relationships independent of the home visitor.

Despite the growing interest around home visitation as an effective method for enhancing social support, a search of the home visitation research produced only one study that directly assessed this outcome. Marcenko and Spence (1994) studied high risk women randomly assigned to home visitation or no services and found that the visited mothers reported significant increases in overall social support, and in the components measuring affective support, affirmation, and availability of concrete assistance. The authors posit, however, that this increase resulted solely from the home visitor's involvement with the mother and did not reflect an improvement in the overall maternal network. Comprehensive reviews of the effectiveness of home visitation programs have failed to discuss whether this service enhances social support (cf. McCurdy, 1995; Olds & Kitzman, 1993; Wekerle & Wolfe, 1993).

In contrast, more attention has been paid to group interventions designed to enhance social support; however, these studies are plagued with methodological weaknesses. Two studies employing one group, pre- and posttest evaluations of general support group interventions report few impacts on social support (Lovell & Hawkins, 1988; Whipple & Wilson, 1996). Although both studies conclude that support programs must be revised to emphasize interpersonal skills training in order to produce more potent impacts on social support, the evidence regarding the effectiveness of such training programs is sparse (cf. Richey, Lovell, & Reid, 1991). The strongest evidence that social support can be influenced by intervention efforts comes from a study by Barth and Schinke (1984) who assessed a twice weekly, 10 week skill-training program for 33 pregnant and parenting teenagers. In comparison to 37 nonparticipating adolescent teenagers from the same school, the treatment teenagers displayed more adaptive social skills, better problem-solving skills, and stronger social support systems at the end of the intervention.

Another weakness prevalent in discussions of the home visitor's potential to increase social support is the failure to specify the types of support presumed to be affected by the intervention. The literature does not

distinguish between the utility of home visitation for enhancing the structural (e.g., network size) or affiliational (e.g., perceived support, enacted support) characteristics of support networks. Although home visitation may help to strengthen all aspects of the support network, it is unlikely that this impact would be equally strong across all domains. As affiliational aspects of social support have been thought to exert a more powerful impact on parenting behavior (Thompson, 1994), such distinctions need to be fully explicated. In terms of the relative impact on affiliational characteristics of support systems, one might expect a home visitor to exert greater influence on the perceived emotional support of the mother as the bulk of the home visitor's time is spent encouraging and supporting the mother in her parenting efforts. In contrast, it is harder to explain why home visitation would increase enacted support (e.g., help with daily tasks) as the home visitor cannot routinely provide such assistance. As for structural characteristics, one could easily connect the introduction of the home visitor to the family with an increase in the recipient's network size. The pathway of influence between home visitation and increased contact with other network members is less clear. This study explores these issues by investigating the relative influence of home visitation on different types of social support.

In summary, this study extends the knowledge regarding the relationship between social support and home visitation in two ways. First, the hypothesis that home visitation will increase overall maternal social support is tested by comparing the relative change in social support between mothers who receive home visits and those who do not during the first year of the infant's life. Second, the relationship between home visitation and social support is further defined by examining home visitors' impact on distinct types of social support. Given Healthy Start's intent to link the family to other services, to provide concrete assistance to the family, and to offer nurturing and emotional support to the parent, especially in a crisis, home visited families should demonstrate significantly stronger support than control families do in the following areas: community involvement, concrete assistance from others, satisfaction with support from others (i.e., perceived emotional support), and number of people who can be counted on in an emergency (i.e., network size).

METHOD

This study uses selected data from an evaluation of Hawaii's Healthy Start program (Center on Child Abuse Prevention Research, 1996). Hospital-based personnel tracked all births to families living in two high risk communities on Oahu (Ewa and Diamond Head) with access to Healthy Start, a statewide home visitation program. Families appearing to be at risk

for parental dysfunction, based on a review of their hospital records (e.g., admission records and medical charts), were interviewed with the Family Stress Checklist (FSC; Schmitt, 1978), an instrument designed to assess parental risk for child maltreatment. The majority of these interviews (85%) took place during the mother's stay in the hospital; the remainder were conducted over the telephone. Families in which the mother or father scored 25 points or greater on this scale comprise the study sample.

Eligible families were randomly assigned to treatment and control conditions based on the infant's date of birth. Families with infants born on even days were offered Healthy Start services; those born on odd days were given referral services as necessary. At this point, the families were asked to participate in a 2-year study of parenting and child development as part of the informed consent process. The decision to delay the informed consent procedure until families had been made aware of their assignment status grew out of discussions with the Hawaii Healthy Start staff. Although initially agreeing to obtain consent before informing families of their treatment status, the staff expressed strong reservations that this process could reduce the number of families enrolling in Healthy Start services due to reluctance to participate in the study. The study design was modified as a result of these discussions. All families were paid \$25 per study interview. Data for this study were collected in the home within 1 month of the child's birth and 12 months postpartum. Interviews typically lasted 90 min.

Measures

The analyses reported in this paper involve a subset of measures from the broader evaluation study (Center on Child Abuse Prevention Research, 1996). In addition to the screening instrument, the FSC, the Child Abuse Potential Inventory (CAP), a measure of punitive parental attitudes, was administered as a second indicator of parental risk for maltreatment at program entry. Maternal social support was measured with an expanded version of the Maternal Social Support Index (MSSI) at birth and 12 months later.

Family Stress Checklist

The Family Stress Checklist (Schmitt, 1978) is an interview instrument used to identify eligible families for Healthy Start services. This measure assesses 10 factors related to parental risk for maltreatment: abuse of parent in childhood; history of criminal behavior, mental illness, or substance abuse; abuse of other children in family; low self-esteem, isolation or depression, and poor coping skills; multiple crises or stresses; violent temper outbursts

toward adults or children; rigid, unrealistic expectations of the child; harsh disciplinary practices of other children in family; unfavorable perceptions of the child; and an unwanted child or poor bonding. Interviewers rate both parents on a 3-point scale, 0 (*no risk*), 5 (*moderate risk*) or 10 (*high risk*), on each factor with a maximum score of 100 (Orkow, 1985). Research indicates that this checklist correlates highly with child abuse potential, especially for parents who score 40 or more, and demonstrates predictive validity for failure to thrive as well (Murphy, Orkow, & Nicola, 1985).

Child Abuse Potential Inventory

The Child Abuse Potential Inventory (Milner, 1986) is a self-report measure of a person's potential to physically abuse a child. The respondent agrees or disagrees with 160 items. Higher scores indicate more problematic parenting. The CAP includes six factor scales assessing the following domains: distress, rigidity, unhappiness, problems with child and self, problems with family, and problems with others. The CAP also contains three lie scales that measure the validity of the respondents' answers. To reduce data burden, a shorter version of the CAP (95 items) was used in the this study. This version excludes those items making up the lie scales. Because the validity of the lie scales has not been established with the study population (Hawaiian, Polynesian, and Asian parents) and has proven problematic with some Hispanic populations (National Committee to Prevent Child Abuse, 1995), exclusion of these scales should not compromise the overall quality of the measure.

The validity and reliability of the CAP have been well-established. A number of cross-validation studies indicate that the CAP Inventory has overall classification rates of 80–90% (Milner, 1986, 1987; Milner, Gold, & Wimberly, 1986). In addition to concurrent prediction, future predictive validity (Milner, Gold, Ayoub, & Jacewitz, 1984; Milner & Wimberly, 1980) and construct validity of the CAP have been established (Chan & Perry, 1981). The CAP has been normed on a wide spectrum of groups that range with respect to race, income, and level or risk of abuse (Milner, 1986).

Maternal Social Support Index

The Maternal Social Support Index is a 21-item, self-report measure that assesses the amount of support provided by the mother's social network as well as her satisfaction with that support (Pascoe & Earp, 1984). The MSSSI consists of one subscale measuring help with daily tasks (11 items); three Likert-type scales assessing the following support domains: (1) satisfaction

with kinship relationships, (2) satisfaction with primary male relationship, (3) satisfaction with another adult relationship; and the remaining items document the following: (1) extent of community involvement, (2) number of network members who can help in a crisis, and (3) number providing emergency child care. With this measure, higher scores correspond to greater social support. Studies have shown positive correlations between low scores on the MSSI and physical abuse (Chan, 1994), and between high scores and the provision of stimulating care (Pascoe, Loda, Jeffries, & Earp, 1981). Construct validity has been established (Pascoe, Walsh-Clifford, & Earp, 1982). In addition, the MSSI has been administered previously to Asian parents (Chan, 1994).

The original instrument was expanded to include four Likert-type items measuring two support types that have been found to correlate with parenting: concrete assistance (Coohey, 1996; Hashima & Amato, 1994; Unger & Wandersman, 1985) and enacted support (Thompson, 1995). These items are (1) concrete assistance from family members and friends (e.g., food, clothing, and money); (2) concrete assistance from the partner; (3) assistance from the partner with child care; and (4) the frequency with which the mother receives respite from child care responsibilities. The expanded MSSI version achieved an acceptable level of internal reliability in this sample ($\alpha > .80$) as did the task-sharing subscale ($\alpha > .71$).

Sample

Of the 470 eligible families asked to participate in the study, 372 (80%) accepted. The refusal group consisted of a significantly greater portion of control families (14%, $n = 68$) than treatment families (6%, $n = 30$). Because informed consent was not obtained from the families who refused to enroll in the study, I could not test whether any specific characteristics differentiated this group from those who agreed to participate. However, the significantly greater likelihood of refusals among control families, $\chi^2(1, 98) = 3.96$, $p < .05$, suggested that selection bias occurred at this point in the randomization process with access to home visitation services influencing the decision to participate in the study.

At the 12-month assessment point, interviews were conducted with 212 families, split between visited (51%) and control (49%) conditions. Overall, these 212 mothers did not significantly differ from the full sample ($N = 372$) in terms of demographic characteristics and initial FSC scores. Specific comparisons of participating treatment ($n = 108$) to nonparticipating treatment families ($n = 69$) also failed to turn up any significant differences. When participating control families ($n = 104$) were compared to nonparticipating

control families ($n = 87$), however, two factors distinguished participants from nonparticipants. Participating control mothers were more likely to be employed, $\chi^2(1, 191) = 5.3, p < .03$, and living with a partner, $\chi^2(1, 191) = 8.3, p < .01$, than were control mothers who left the study. These findings indicate that differential attrition occurred among control families with higher risk families demonstrating a greater probability of dropping out.

The occurrence of attrition and the differential pattern of refusals into the study argue for the use of quasi-experimental methods to measure and adjust for any initial nonequivalence between the treatment and control families on characteristics related to outcomes (Cook & Campbell, 1979). First, I examined whether the treatment and control families participating in the 12-month assessments significantly differed on initial demographic characteristics and risk indicators. Table I presents a comparison of the initial demographic characteristics of each group. Although the treatment and control mothers resembled each other on most of the variables, some significant differences were apparent. For example, the visited mothers entered the study with lower rates of employment and educational attainment than the nonvisited mothers did ($ps < .05$, for each comparison). Further, current teenage mothers (defined as 19 and under) represented a significantly higher portion of the treatment group versus the control group even though average maternal age was similar for both.

Table II summarizes the initial measures of parental functioning. Scores on both the MSSSI and the FSC indicate that treatment and control families began the study with similar levels of support and stress. Scores on the CAP, however, varied significantly by treatment status with treatment families scoring 170 ($SD = 91$) at entry to the study as compared to 139 ($SD = 85$) for the control families, $T(210) = 2.6, p < .02$. On average, treatment mothers entered the study with a moderate potential for physical abuse (e.g., score above 165) whereas control mothers scored in the low risk range.

Statistical Analyses

For participants in the 12-month assessments, the evidence reveals that the mothers in the treatment group entered the study at a higher level of risk than did mothers in the control group. Therefore, treatment mothers would have to improve just to reach the same level of initial functioning as control mothers. To adjust for this initial nonequivalence between groups, I utilized a two-step regression procedure in the multivariate analyses. This procedure statistically controls for initial nonequivalence before examining the impact of treatment status on change in social support. The following variables were entered in the first step of the regression equation: TEEN (0 = over 19,

Table I. Initial Demographic Characteristics by Treatment Status ($N = 212$)

Maternal characteristics	Treatment (%)	Control (%)
Marital status		
Married	16	17
Separated, divorced, widowed	7	13
Never married	58	48
Cohabiting	19	22
Educational status*		
No high school diploma	35	21
High school diploma	49	55
More than high school	15	24
Unknown	1	0
Employment status*		
Employed	22	38
Not employed	77	62
Unknown	1	1
Primary racial affiliation		
Caucasian	15	12
Filipina	24	29
Hawaiian	26	31
Japanese	6	7
Puerto Rican/Hispanic	6	4
Samoan	9	4
Other	15	14
Public assistance status		
Receives assistance	75	64
No assistance	24	35
Unknown	1	2
Single parent		
Yes	12	9
No	88	91
Monthly income		
Under \$1,250	39	38
\$1,250–2,082	13	16
\$2,082 plus	16	14
Unknown	32	32
Teenage Mother*		
Yes	37	22
No	63	78
Three or more children		
Yes	23	19
No	77	81
Demographic characteristics-continuous	<i>M</i>	<i>M</i>
Mother's age	23.2 (6.0)	23.8 (5.1)
Father's age	27.2 (7.7)	26.8 (7.9)
Number of children	1.9 (1.2)	1.9 (1.2)

Note: Treatment group $n = 108$; control group $n = 104$. Values in parentheses represent standard deviation.

* $p < .05$.

Table II. Comparison of Treatment and Control Mothers on Initial Measures of Parental Functioning ($N = 212$)

Measures	Treatment	Control
Family stress checklist ^a		
<i>M</i>	36.8	35.4
<i>SD</i>	13.0	11.5
Child abuse potential inventory ^b		
<i>M</i> [*]	170.1	139.1
<i>SD</i>	91.1	84.7
Maternal social support inventory		
<i>M</i>	31.1	32.1
<i>SD</i>	9.2	7.6

Note: Treatment group $n = 108$; control group $n = 104$.

^aScore of mother.

^bExcludes one participant with excess blanks on this measure.

* $p < .05$.

1 = 19 or under), NO WORK (1 = not employed, 0 = employed), NO HIGH (1 = not a high school graduate, 0 = high school graduate), PARTNER (1 = has partner, 0 = no partner), and initial CAP scores. The second step entered treatment status (1 = treatment, 0 = control). The change in explained variance (R^2 change) on the second step is examined to test for a significant effect of home visitation.

RESULTS

Services

Treatment mothers, on average, received a total of 28 home visits ($SD = 11$) during the first year of services, with a range from 1 to 55 visits. However, only 4 mothers (3.7%) participated in fewer than 11 visits during this 1-year period whereas 16 mothers (14.8%) received over 40 visits. In addition, the majority of mothers (77%) were visited in their homes by a child development specialist on at least two occasions. In contrast, only 36% of visited mothers engaged in the parenting groups offered by Healthy Start, with the typical mother attending four group sessions.

Change in Support

Table III presents the mean change scores on the expanded MSSSI. By the end of the first year of the target child's life, scores were virtually the same for both groups ($M = 31$ for both groups). A comparison of change in MSSSI scores found that social support remained stable over the first year, regardless of treatment status. These findings were confirmed with the multiple

Table III. Change in MSSSI by Treatment Status ($N = 212$)

Continuous items	Treatment		Control	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Total MSSSI	-0.1	8.4	-1.1	7.6
Help with daily tasks	-0.5	3.0	-0.2	2.3
Count on in need	-0.2	1.9	-0.3	1.5
Emergency child care	0.1	0.8	0.0	0.5
Community involvement	-0.5	2.4	-0.6	2.2
Categorical items	%	<i>N</i>	%	<i>N</i>
Visit with relatives				
Increased	22.2	24	15.4	16
No change	63.0	68	66.3	69
Decreased	4.8	16	18.3	19
Satisfaction with partner				
Increased	13.9	15	19.2	20
No change	57.4	62	48.1	50
Decreased	28.7	31	32.7	34
Satisfaction with other*				
Increased	20.4	22	20.0	21
No change	67.6	73	51.9	54
Decreased	12.0	13	27.9	29
Concrete assistance from others				
Increased	30.6	33	24.0	25
No change	27.8	30	32.7	34
Decreased	41.7	45	43.3	45
Concrete assistance from partner				
Increased	18.5	20	21.2	22
No change	50.0	54	44.2	46
Decreased	31.5	34	34.6	36
Child care from partner				
Increased	22.2	24	28.2	29
No change	42.6	46	38.8	40
Decreased	35.2	38	33.0	34
Respite from child care				
Increased	32.4	35	29.8	31
No Change	43.5	47	36.5	38
Decreased	24.1	26	33.7	35

Note: Treatment group $n = 108$; control group $n = 104$.

* $p < .05$.

regression analysis. After controlling for the initially higher level of risk among treatment mothers, home visitation did not significantly raise scores on the expanded MSSSI. Thus, the overall support networks of these disadvantaged mothers were not substantively affected by access to home visitation services.

Bivariate comparisons of 12-month scores (not shown) revealed no significant differences in the four areas hypothesized as most likely to change as a result of home visiting: concrete assistance, perceived emotional support, community involvement, and network size. Change scores for the continuous

items (e.g., help with daily tasks) also demonstrated no significant treatment effects. Because of the restricted range of change and the ordinal properties of the Likert-type items, a categorical change variable was calculated for these item with increases in support coded as 1, no change coded as 0, and decreases coded as -1 . The results, shown in Table III, revealed a significant effect for emotional support. Change in satisfaction with an adult other than the partner emerged as the only support item to discriminate significantly between the treatment and control mothers, even without adjusting for initial nonequivalence between groups. Although similar percentages from each group (20%) reported greater satisfaction at 12 months, 28% of nonvisited families noted a decrease in their satisfaction with support from a close adult as compared to 12% of visited families, $\chi^2(2, 212) = 8.9, p < .02$.

Healthy Start also offered another method for increasing social support—the provision of parent support groups. However, this mode of service delivery was underutilized by the Healthy Start mothers. Just over one third of the treatment mothers ($n = 39$) chose to attend any parent support group; further, these mothers attended, on average, only four group meetings during the 1-year period. A correlational analysis of attendance at support groups with change on overall social support failed to find a significant relationship between the two variables.

DISCUSSION

The hypothesis that home visiting would significantly enhance social support was not supported with these data. Little change occurred in most facets of social support including receipt of concrete assistance from partner or others, number of people providing crisis support, and community involvement. A significant relationship was found between perceived emotional support from a close adult and home visiting; however, the social support system in which the mother routinely operates does not appear to expand as a result of 1 year of home visitation.

Some limitations to the study design need to be discussed before reviewing the implications. First, the failure to find a relationship between home visiting and overall social support may reflect measurement error if the MSSSI fails to capture the critical aspects of social support that are impacted by home visitation. The relatively broad range of support constructs measured by the MSSSI (e.g., satisfaction with and level of support), the focus on both affiliational and structural aspects of support (Thompson, 1995), the measure's high level of internal reliability in this sample, and the established relationship between the MSSSI and parenting behavior (Chan,

1994; Pascoe *et al.*, 1981) argue against this proposition. The inclusion of an additional support measure to verify this lack of effect would strengthen this study; however, data collection constraints in the overall evaluation precluded this option. Further, most well-known support measures rely on self-report to assess network size and strength, which restricts the usefulness of additional measures for reducing measurement error (Rubin & Babbie, 1989).

The second potential limitation concerns the length of time participants were followed. Although the 12-month prospective design utilized in this study represents an advance over much of the research in the social support field, this time frame may be inadequate for finding effects in this domain. A more sustained intervention may be required before a substantial impact can be realized, especially if the mother is attempting to replace conflictual network members with supportive ones (Richey *et al.*, 1991).

A third weakness, noted earlier, is the nonequivalence between the treatment and control families. Because treatment mothers displayed greater initial risk in some areas as compared to control mothers, a concern may arise over whether regression to the mean occurred. In this instance, however, regression to the mean is unlikely as mothers were not selected for services or the study due to extreme scores on social support and no significant differences existed between the treatment and control mothers on the baseline measure of support (Cook & Campbell, 1979).

Overall, the results from this study undermine the assertion that home visiting, as provided by Healthy Start, is a promising strategy for fostering social support. The addition of a home visitor to the mother's support system failed to generate robust improvements in social support. Even though the Healthy Start program also offered support groups, the vast majority of parents failed to utilize this method to widen their support network. Thus, two modes of service delivery—individualized, home-based service and group, center-based service—did little to enhance the support systems of these mothers. Further, analyses limited to the treatment group found no relationship between the frequency of home visits and changes in social support. Taken together, these results suggest that although the provision of parenting services in the home may be more acceptable or achievable or both of these for these disadvantaged mothers, integrating mothers into a new support network through either home visits or group interventions remains a challenge.

When looking at whether some kinds of support are more amenable to intervention than others are, we find no evidence that concrete support, network size, or community involvement improved as a result of home visitation. The observation that nonvisited mothers were significantly more likely to

report a decline in satisfaction with another adult as compared to visited mothers suggests that the Healthy Start model may influence mothers' perceptions of emotional support, though this finding might only reflect a chance association given the number of statistical analyses conducted. If valid, it is important to isolate the mechanism that might produce such an effect. For instance, if, as Marcenko and Spence (1994) found, the mother came to rely on the home visitor as her source of emotional support, we might expect any positive influence to fade once the visits end. On the other hand, if the home visitor's efforts enable the mother to maintain her satisfaction with an important support figure, we can be more confident that a positive effect may endure past program termination. Future studies are needed to confirm the relationship between home visitation and perceived emotional support, and to clarify the manner in which the home visitor influences social support if we wish to predict long-term outcomes.

This study represents one of the first attempts to gauge the impact of home visitation on social support and needs to be replicated with other studies. Given the recent proliferation of home visitation programs, however, the lack of effect on the overall support system of these mothers raises some immediate concerns. The evidence is a preliminary indication that the special qualities of Healthy Start posited to enhance social support, such as the use of paraprofessionals, creative outreach, and the specific focus on social support as a primary intervention goal, are not enough to accomplish this task. If, as some studies suggest, high risk mothers are embroiled in maladaptive support systems (Coohey, 1996) whose members often cause conflict (Richey *et al.*, 1991), fail to provide appropriate support (Beeman, 1995), or accept harmful parenting practices (Korbin, 1989), altering such support networks most likely requires different intervention strategies than those currently offered by Healthy Start and similar home visitation programs. For example, the available research points to interpersonal skill-building methods that help mothers "elicit and maintain supportive resources" (Beeman, 1995, p. 82), negotiate problems, and identify mutually beneficial relationships (Barth & Schinke, 1984) as promising avenues to assist mothers in recasting maladaptive networks into functional support systems. Taking this skill-building approach, however, would be a significant departure from current home visitation practices (McCurdy, 1995).

It is unclear whether the failure to impact social support reflects a shortcoming in the Healthy Start model or, as other study results suggest (Lovell & Hawkins, 1988; Whipple & Wilson, 1996), our limited knowledge base regarding effective strategies for fostering support. What is clear is the compelling need for future studies and theoretical discussions as to the types of support that can and should be impacted by family support and home visitation programs.

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