

A review of the literature on the prevention of child abuse and neglect: characteristics and effectiveness of home visiting programs

Summary

This paper presents the nature and effectiveness of home visiting programs aimed at preventing child abuse and neglect. Twenty-seven North American studies published since 1980 were reviewed. Home visiting programs were found to be oriented towards families considered at risk for child maltreatment. Program goals were commonly geared towards infant development, parental characteristics, parent-infant interactions and social support. The majority of programs reviewed offered services beginning in the early post-partum period, lasted between 3 and 12 months, and employed professionals such as nurses and social workers. This review revealed that 63% of programs showed a significant impact in reducing the incidence of child abuse and neglect. Other significant positive results included a wider social support network, as well as improvements in home environment, parent-infant interactions, mothers attitudes and expectation of child development, and infant mental development. Some characteristics were also found to be related to programs effectiveness such as the early introduction of a home visitor and the frequency of the services aimed towards at-risk families. These results are discussed in terms of recommendations for future research and practice.

Introduction

Child maltreatment is considered to be one of the most important social problems in North America. In 1995, over 3.1 million cases of child abuse and neglect were reported to Child Protection Service (CPS) in the United States. The CPS confirmed 996,000 of these reports to be cases of maltreatment. A 1995 national survey (NCPA, 1996) revealed that 54% of confirmed cases of child maltreatment in the United States involved neglect; 25% physical abuse; 11% sexual abuse; 6% were related to other forms of child maltreatment, and 3% to emotional maltreatment.

Public concern in North America for the elevated rate of child abuse and neglect has resulted in the implementation of a growing number of prevention programs. The most common service offered by such programs is the home visit, defined as a service provided in the

home by a range of professionals or paraprofessionals, which focuses on social, psychological, educational, or health needs on an individual or family level (Roberts & Wasik, 1991). Home visiting services have increased in popularity because of the many advantages they offer over out-patient clinics or community centers. For instance, home visits allow practitioners to identify the specific needs of each family and concentrate on the most urgent ones, or provide a link with other services that would best meet their needs. They offer different forms of social support to families such as emotional, informational and tangible aid. Working in the family home enables visitors to meet with relatives and neighbours and helps families extend their social support network. Home visits reach out to families that could not otherwise receive an agency-based service due to geographic isolation or a lack of transportation.

Despite the growing interest in prevention programs such as home visits, outcome studies are still few in proportion to the number of existing programs. The purpose of this paper is to present a review of the literature on the nature and effectiveness of home visiting programs in North America. The programs included in this review either stated their major goal as the prevention of child abuse and neglect or described goals indirectly related to child maltreatment, such as the improvement of parenting competency or parent-infant interactions. Moreover, all of the programs included in this paper were evaluated by means of a pre-experimental, quasi-experimental or experimental design.

Method

Selection criteria

The following seven criteria guided the selection of studies to be included in this review of the literature.

1. The goals of the program addressed parental attitudes or parent-infant interactions.
2. The primary service offered in the program evaluated was the home visit.
3. The program targeted parents considered at risk (i.e. who presented at least one risk indicator associated with child abuse and neglect, such as low socio-economical status, single-parent status, young parental age, infant prematurity, and dysfunctional infant behaviour).
4. Programs that treated families following incidences of abuse and neglect were excluded.
5. The program was implemented in North America.
6. The study was published between 1980 and 1995.
7. The study included some quantitative measure of program effectiveness (e.g. rates of child abuse and neglect).

The studies reviewed were first obtained through journal articles focusing on child abuse and neglect prevention programs (Fink & McCloskey, 1990; Heinicke, Beckwith, & Thompson, 1988; Helfer, 1982; Roberts & Wasik, 1990; Wekerle & Wolfe, 1993). The Psych abstracts and Eric databases were used to research this review. A total of 27 studies consistent with the selection criteria were selected. Of these studies, 24 evaluated programs implemented in the United States, and three which were implemented in Canada. Thus, 67% of the programs

reviewed offered only home visits and 33% offered other services such as parent groups, parent-infant groups, day care or prenatal classes, along with home visits as their primary service.

Results

Characteristics of home visiting programs

Theoretical framework

The two most common frameworks employed in the studies to explain child abuse and neglect were the ecological model and attachment theory. These conceptual frameworks offer practitioners a comprehensive means of understanding the causes of child abuse and neglect. For instance, according to the ecological model, families at risk of child maltreatment can be identified by examining the individual, familial, social and cultural factors that operate cumulatively and interactively to create a situation which places the infant in danger of physical abuse or neglect. This model also assists practitioners in targeting the specific needs of families according to individual, familial or social risk indicators (e.g. inappropriate child rearing attitudes, unrealistic expectations of child development, or a lack of formal or informal social support). The causal model therefore guides practitioners in selecting outcome measures which are consistent with program goals. Thus, if social isolation is proposed as risk indicator for child maltreatment and is used as selection criteria for targeting appropriate program participants, the intervention should address this need and the program evaluation should include some measure of changes in social support.

Despite the increasing use of the ecological theory as a causal model for child abuse and neglect, few of the 27 studies reviewed clearly described the programs theoretical framework, which was usually an ecological one (Armstrong, 1981, Barth, 1991; Durand, Ouellet, & Massé, 1989; Lutzer & Rice, 1984; Olds, 1988; Taylor & Beauchamp, 1988). Some studies provided greater details on the programs content, which was most often centered on infant stimulation (Andrews et al., 1982; Caruso, 1989; Field, Widmayer, Stringer, & Ignatoff, 1980; Slaughter, 1983). However, these studies did not refer to an explicit theoretical framework to select their participants or to explain the rationale of their treatment procedures.

Program participants

Of the twenty-seven programs reviewed 40% targeted women in the third trimester of their pregnancy, 30% addressed women with a newborn, and the remaining 30% were aimed at women with at least one young infant. Mothers were usually the sole participants in all of the evaluations reviewed. In fact, 22% of the studies indicated that the fathers were invited to participate in interventions although they were not included in research design (Barrera, Rosenbaum, & Cunningham, 1986; Durand et al., 1989; Gray & Ruttle, 1980; Olds, Henderson, Chamberlin, & Tatelbaum, 1986; Séguin, Ferland, Ouellet, & Lambert, 1987; Seitz, Rosenbaum, & Apfel, 1985).

The families in all of the programs reviewed presented at least one risk indicator associated with child abuse and neglect. The most common indicators used to select the participants were low income, single-mother status family, the parent's level of education inferior to high

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school, a parental age under 23, and mothers with a premature infant. Two other selection criteria occasionally used by home visiting programs were ethnic minority (Andrews et al., 1982; Caruso, 1989; Field et al., 1980; Marcenko & Spence, 1994; Slaughter, 1983) and primiparous women. Although it is not clear in the literature if primiparous women are at greater risk of child abuse and neglect, the criterion was used by some programs in order to maximize the effectiveness of home visiting services. According to these studies, first-time parents are more likely to benefit from the program than parents having already experienced parenthood (Olds, 1988; Seitz et al., 1985; Taylor & Beauchamp, 1988).

Program goals

All the programs reviewed had goals related to parental characteristics or/and parent-infant interactions. While some programs had goals related to child development, these tended to focus their intervention primarily on infant stimulation. Other programs included specific goals related to social support but they were usually offered primarily as parent groups. Table 1 shows the goals highlighted in the studies classified into four categories: (a) infant development; (b) parental characteristics; (c) parent-infant interactions; and (d) social support.

Table 1. *Goals most frequently indicated in the programs reviewed*

Area targeted for change	Common goals
<i>Infant development</i>	<ul style="list-style-type: none"> - Improve the infants developmental level of functioning (gross and fine motor development, social, and emotional skills, mental development and language). - Ameliorating the quality of the care given to the infant. - Bettering the quality of the home environment (stimulation available to the infant).
<i>Parental characteristics</i>	<ul style="list-style-type: none"> - Assisting parents in developing realistic expectations of infant behaviour. - Increasing mothers self-esteem. - Improving parents understanding of the following topics: the infants temperament; the infants social, emotional and cognitive needs; the infants physical health care needs. - Increasing confidence in the parental role.
<i>Parent-infant interactions</i>	<ul style="list-style-type: none"> - Improving the quality of the interactions between mother and infant. - Fostering a positive emotional attachment between mother and infant.
<i>Social support</i>	<ul style="list-style-type: none"> - Generating community networking. - Increasing access to health and social services. - Augmenting parents social support.

Duration and frequency of home visit

As shown in Table 2, the majority of the programs (56%) offered home visits beginning in the early post-partum period. Others typically began during the third trimester of a woman's pregnancy. The duration of the programs varied from 1 month to over 3 years. Of all the programs reviewed, 22% lasted less than 3 months. These programs all offered hospital visits or prenatal classes prior to home visiting services. Forty-four percent of the programs lasted between 3 and 12 months, and the remaining 41% exceeded 12 months. The average duration calculated for the 27 programs was approximately 16 months, with a mean of ten contacts made by the visitor in the family home.

Home visits were generally offered on a weekly basis for the entire duration of a program, or for the first three months. After three months, the visits were proffered on a bi-monthly or monthly basis. The duration of each visit ranged from thirty minutes to two hours with an average of one hour per visit.

Status and role of home visitors

The majority of the programs reviewed (63%) employed only professionals, such as social workers or nurses, as their home visitors. In 22% of programs, home visitors were paraprofessionals, defined by Elovson (1981) as 'persons without a college degree and/or advanced training in a particular field of study that enables them to function at a professional level'. Paraprofessionals typically tended to be women with positive parenting experiences and who shared the same socio-economical background as the mothers they visited (Barth et al., 1988; Dawson et al., 1990; Durand et al., 1989; Marcenko & Spence, 1994). A minority of programs (15%) made use of some combination of both professionals and paraprofessionals.

Paraprofessionals were supervised by professionals and received training on issues such as child care and development, the special needs of infants and mothers during the early months, the importance of play and stimulation for infant learning and language development, and the use of community resources (Barth, 1991; Dawson et al., 1990; Marcenko & Spence, 1994; Siegel et al., 1980).

The roles played by home visitors tended to be similar across studies. The visitors provided families with a wide range of social support and typically provided the fulfilled the following roles: (a) serving as a model for the parent, (b) providing practical help, (c) acting as a source of emotional support, (d) offering information, (e) serving as a link with community resources, and (f) assessing infant safety and family interactions. In some programs, the visitors role varied according to his professional status. Professionals tended to provide a more formal type of support in several studies. They were held responsible for the provision of medical care and counseling, were often entrusted with the supervision and training of paraprofessionals, and called upon to assess the needs of the families and implement optimal interventions to address them. On the other hand, the role of paraprofessionals was most often described as 'being a model for the parent' by demonstrating positive parenting and home care skills.

Table 2. Characteristics of home visiting programs

Studies	Services	Method		Target group			Home visits			
		design	Tx1/Tx2 (post-test)	follow-up	sex	age ^c	characteristics ^b	onset	dur	visitors
1. <i>Armstrong, 1981; Armstrong & Fraley, 1985</i>	1, 3, 4	pre	46	3	F	27	Lw, HS	post	10	prof.
2. <i>Barth, 1991; Barth, Hacking, & Ash, 1988</i>	1	exp.	97		F	23	Lw, HS	preg	6	para.
3. <i>Dawson, van Doorninck, & Robinson 1990</i>	1, 3	exp.	94		F	20	Lw, HS	preg	16	para.
4. <i>Gray & Ruttle, 1980</i>	1	exp.	27	0.8 and 1.7	F*	—	Lw, HS	post	9	prof. & para.
5. <i>Huxley & Warner, 1993</i>	1	quasi	20		F	21	Single	preg	36	prof.
6. <i>Lutzer & Rice, 1984, 1987</i>	1	quasi	50	1, 2, 3, 4, 5	F	—	Lw	post	12	prof.
7. <i>Marcano & Spence, 1994</i>	1	exp.	110		F	23	HS, Ethn.	preg	12	prof. & para.
8. <i>Barrera et al., 1986, 1990</i>	1	exp.	16/22	3	F*	26	Prem.	post	12	prof.
9. <i>Durand et al., 1992</i>	1	quasi	137		F*	20	Lw, HS	post	3	para.
10. <i>Olds et al., 1986, 1988</i>	1	exp.	100/116	2 and 4	F*	19	Lw, Single, Primi.	preg	24	prof.

Notes. Dashes indicate that the data are not reported in the study.

Services: 1 = Home visits; 2 = Hospital visits; 3 = Parent groups; 4 = Parent-infant groups; 5 = Day care; 6 = Prenatal classes.

a Average age for the experimental group (Tx).

b Characteristics present for the majority of the participants: Lw = Low income; Single = Single-mother; Primi. = Primiparous woman; HS = Level of education equal or inferior to high school; Ethn. = Ethnic minority; Prem. = Premature infant; Beh. = Infant with dysfunctional behaviour.

c Duration of the home visits (in months).

* The fathers were invited to participate in the programs but were not included in the research design.

Table 2. Characteristics of home visiting programs

Programs	Services	Method		Target group			Home visits			
		design up	Tx1/Tx2 (post-test)	sex	age ^c	characteristics ^b	onset	dur ^d visitors		
11. <i>Barnard et al., 1988; Booth, Mitchell, Barnard, & Spieker, 1989</i>	1	pre	68/79	2	F	21	Single, HS	preg.	12	prof.
12. <i>Larson, 1980</i>	1	quasi	35		F	---	HS	preg	15	prof.
13. <i>Seitz et al., 1985</i>	1, 5	quasi	17	10	F*	---	Lw, Ethn., Primi.	preg	30	prof.
14. <i>Siegel, Bauman, Schaefer, Saunders, & Ingram, 1980</i>	1, 2	exp	47/52 53/60		F	21	Lw, Single, HS	preg	3	para.
15. <i>Affleck, Tennen, Rowe, Roshier, & Walker, 1989</i>	1	exp	47		F	29	Primi.	preg	3.75	prof.
16. <i>Caruso, 1989</i>	1, 3, 5	quasi	66	3	F	Teen	Single	preg	36	para
17. <i>Affholter, Connell, & Nauta, 1983</i>	1, 3	exp	199		F	---	Single, Primi.	post	36	prof
18. <i>Lyons-Ruth, Connell, Grunebaum, & Batein, 1990</i>	1, 3	quasi	31		F	26	Lw	post	18	prof. & para.
19. <i>Séguin, Ferland, Ouellet, & Lambert, 1987</i>	1, 6	exp	53	1	F*	27	Primi.	post	75	prof.
20. <i>Villar et al., 1992</i>	1	exp	1115		F	---	HS, Prem.	preg	5	prof.
21. <i>Field et al., 1980</i>	1	exp	30		F	Teen	Ethn, Prem.	post	8	prof.
22. <i>Stevenson, Baily, & Simpson, 1988</i>	1	quasi	33/3	4	F	---	Beh.	post	6	prof.
23. <i>Taylor & Beauchamp, 1988</i>	1, 2	exp	16	0.25	F	24	Lw, Primi.	post.	75	prof.
24. <i>Slaughter, 1983</i>	1, 3	quasi	26/26		F	24	Lw, HS, Ethn.	post	24	prof. & para.
25. <i>Andrews et al., 1982; Johnson & Berkenridge, 1982</i>	1, 4	exp	44	1 and 4	F	18	Lw, HS, ethn.	post	12	para.
26. <i>Barbkas, 1983</i>	1	quasi	67		F	18	Single, HS, Primi.	post	6	prof.
27. <i>Nurcombe et al., 1984</i>	1, 2	exp	34		F	28	Primi, Prem.	post	3	prof.

Effectiveness of home visiting programs

In order to analyze program outcomes, the variables most frequently evaluated in the studies selected for review were clustered into five categories: (a) the incidence of reported cases of child abuse and neglect; (b) social support; (c) family characteristics; (d) mother characteristics; and (e) infant characteristics. Table 3 presents the number of studies that evaluated items in these categories, as well as the percentage reporting positive results at post-test and the maintenance of these results at follow-up.

Table 3. *Percentage of studies reporting positive outcomes by principle variable category*

<i>Categories</i>	Studies <i>n</i>	Positive results ^a		Follow-up ^b	
		<i>n</i>	%	m.	n.m.
Child Abuse and Neglect (case reported)	8	5	63%	2	
Social support	6	4	67%		
The family: ~ Home environment	12	9	75%	2	
~ Parent-infant interactions	13	8	62%	1	1
~ Infant attachment	3	1	33%		
The mother: ~ Attitudes towards infants rearing	12	12	100%	2	1
~ Expectations on infant	3	3	100%		1
development: ~ Self esteem	2	1	50%		
~ Depression	6	3	50%	1	
~ Return to work or school	3	3	100%	1	
The infant: ~ Mental development	14	9	64%		2
~ Motor development	11	3	27%		1
~ Language skills	2	2	100%		
~ Infant behaviour	6	2	33%	1	
~ Infant health & welfare	5	2	40%		

Note. Positive result reported statistically significant at $p < .10$.

a Number of studies reporting positive results.

b Number of studies in which positive results were: m. = maintained at follow-up; n.m. = not maintained at follow-up.

Child abuse and neglect

As indicated in Table 3, only eight programs reported the incidence of child abuse and neglect during and following intervention. Sixty-three percent showed significant positive results in the reduction of incidence. However, a quasi-experimental study found that positive results were not maintained from 1 to 5 years following the intervention (Lutzer & Rice, 1987). Olds and colleagues (1995) also reported that positive results were not maintained 2 years after the intervention.

Social support

The effectiveness of home visiting programs on social support is not well documented in the literature. In fact, although most programs were directly or indirectly aimed at increasing social support, only a small percentage of studies evaluated this variable. This review revealed significant positive results in 67% of the six programs measuring social support. Mothers reported less isolation, greater satisfaction with the different forms of help received, and an increase in the number of network members. Two studies reported a more positive impact on families with greater needs for support (Affleck et al., 1989; Booth et al., 1988).

Home environment and parent-infant interactions

The home environment and parent-infant interactions showed the greatest gains in the family category. Mothers had a better organization of the environment as well as more appropriate play material (toys, songs, games, reading materials). Two follow-up studies with an experimental design indicated that positive results on the quality of home environment were maintained over a period of 3 months (Barrera et al., 1990) and 2 years following the intervention (Olds et al., 1995).

The results on parent-infant interactions are also encouraging. Positive results were reported in 62% of the studies that evaluated this variable. Families that participated in these programs were involve in a greater number of parent-child interactions. Home-visited mothers showed greater sensitivity towards their infants needs, made use of more appropriate language stimulation, scored higher on teaching, were more satisfied with their maternal role, and rated their infants behaviour more positively than control group mothers (Affholter et al., 1983; Andrews et al., 1982; Barnard et al., 1988; Barrera et al., 1986; Dawson et al., 1990; Gray & Ruttle, 1980; Olds et al., 1995; Taylor & Beauchamp, 1988). The studies which failed to report positive results either provided short term intervention (Séguin et al., 1988; Siegel et al., 1980) or employed a small sample (Huxley & Warner, 1993; Stevenson et al., 1988). As for the strength of infant attachment, only one study out of three reported significant positive results on the Ainsworth Strange Situation scale (Lyons-Ruth, Connell, & Nauta, 1983).

Mother characteristics

Most studies evaluated some outcomes related to mother characteristics. Positive results were uncovered in all studies evaluating mothers attitudes towards child rearing. Mothers in these programs reported less authoritarian views and more favourable attitudes towards nurturance and discipline, used less physical punishment, and demonstrated more appropriate caregiving

skills than mothers in the control groups (Affholter et al., 1983; Andrews et al., 1982; Dawson et al., 1990; Field et al., 1980; Nurcombe et al., 1984; Slaughter, 1983; Stevenson et al., 1988; Taylor & Beauchamp, 1988). These effects were maintained 1 year (Gray & Ruttle, 1980) and 3 years follow-up (Johnson & Beckenridge, 1982).

Significant positive results were revealed in two of the three studies that evaluated mothers knowledge and expectations of infant development. Mothers demonstrated greater knowledge of infant social and motor development and reported more realistic developmental expectations (Field et al., 1980; Taylor & Beauchamp, 1988). Only two experimental studies evaluated the mothers self-esteem at post-test, and one of these failed to obtain significant positive results (Marcenko & Spence, 1994). Fifty percent of the studies that measured maternal depression found positive results, with two using an experimental design (Affleck et al., 1989; Barnard et al., 1988; Marcenko & Spence, 1994). Mothers return to school or to work at the end of the program was measured in three studies. Two of these, both based on an experimental design, found a greater number of mothers having returned to work or to school at post-test among program participants than among controls. Caruso (1989) also reported a higher rate of return to school or work among program participants than among controls at both post-test and follow-up.

Infant characteristics

The effectiveness of the programs reviewed on infant characteristics was modest. However, while most programs primarily targeted parents, the studies that showed positive outcomes on infant development employed a detailed curriculum on infant stimulation or offered parent-infant groups (Andrews et al., 1982; Armstrong, 1981; Caruso, 1989; Field et al., 1980; Seitz et al., 1985; Slaughter, 1983). As indicated in Table 3, 64% of studies assessing infant mental development reported significant positive results, although two indicated that these were not maintained over a 3 (Barrera et al., 1990) and 10 years' follow-up (Seitz et al., 1980). The majority of studies evaluating infant motor development found no significant between-group differences at post-test (Affholter et al., 1983; Barnard et al., 1988; Barrera et al., 1986; Field et al., 1980; Huxley & Warner, 1993; Lyons-Ruth et al., 1988; Séguin et al., 1988; Nurcombe et al., 1984) or at 10 years follow-up (Seitz et al., 1985).

Significant improvements in infant language skills were uncovered at post-test in two experimental studies. Infants in these programs scored higher on receptive language measures than controls (Gray & Ruttle, 1980) and engaged in more verbal play (Barrera et al., 1986). Of the five studies measuring infant health and welfare, only two reported significant positive results. Olds and colleagues (1986) reported that the infants of program participants were less frequently in emergency rooms than those in the control group. Larson (1980) also found that the group which received prenatal visits had lower child accident rates and a higher up-to-date immunization score than the group proffered with a post-partum home visit. However, Larson (1986) uncovered no between-group differences in the number of adequate check-ups or emergency room visits. Other studies failed to obtain positive results related to the infant's health (common illnesses or medical conditions), the number of emergency room visits, check-ups, or immunizations (Barkauskas, 1983; Barth, 1991; Siegel et al., 1980).

Characteristics related to program effectiveness

In many studies, characteristics were found to be related to the program’s effectiveness. These characteristics were either related to the participants or to the nature of the services offered. As described in Table 4, ten studies revealed that home-visited families presenting the highest risk of child abuse and neglect (families possessing more initial risk indicators) reported more positive effects at post-test. Two studies showed similar results at follow-up (Booth et al., 1989; Olds et al., 1988). Two studies also found primiparous women to demonstrate the greatest benefit from home visits. Four also concluded that home visits should begin at pregnancy for optimal effectiveness, and another four revealed that intensive services were most appropriate for at-risk families. Similarly, Taylor and Beauchamp (1988) reported brief interventions to be more efficient when families were at lower-risk.

Table 4. *Characteristics related to programs effectiveness*

Characteristics	Study
<i>Participant characteristics</i>	
~ Families at greater-risk show more positive effects.	1, 3, 5, 10, 11, 15, 16, 18, 19, 20
~ Primiparous woman show more positive effect.	11, 12
<i>Program characteristics</i>	
~ The longer and the more frequent the home visits are, the better the results for at-risk participants.	1, 5, 10, 20
~ The early introduction (prenatal period) of a home visitor can have a positive influence.	10, 12, 13, 26
~ Brief intervention (< 3 months) is more effective when the participants are at a lower risk.	23

Note. Study numbers refer to those assigned in Table 2

Conclusion and discussion

There are many different types of home visiting programs in North America. This review shows that, since 1980, significant positive results have been reported in the majority of home visit programs aimed at the reduction of child maltreatment or other dysfunctional family characteristics. Thus, programs offering prenatal and intensive services (> 3 months) yield superior results with families considered at high risk. Although many studies uncovered a positive impact on the incidence of child abuse and neglect and on other family, parent, and infant characteristics, there is still room for improvement in future research and intervention. Several recommendations are suggested to improve program effectiveness and future research.

Firstly, it is recommended that intervention programs clearly refer to a theoretical framework. As noted earlier, studies seldom presented the theoretical framework underpinning treatment procedures. Specifying a framework would assist practitioners in target families at greatest risk according to a set of well-researched indicators, and enable them to specify goals that would best meet these clients needs. Secondly, it was noted that programs rarely included fathers in their intervention. It is suggested that programs evaluate fathers' needs and include them directly in interventions with mothers.

Moreover, many studies pointed to the need for intensive (> 3 months), early intervention during the prenatal period when oriented to at-risk participants. Programs should thus offer early and intensive services to high-risk families and short-term intervention to those considered at lower risk.

Finally, it is recommended that additional services be offered along with home visits. These services should focus on risk indicators associated with child abuse and neglect, such as socio-economic status, the lack of available day care services, social isolation, and the need for a parent support group.

This review also points to several recommendations concerning future research on home visiting programs.

- (1) Researchers should work within a clear theoretical framework that would guide their use of appropriate measure directly related to risk indicators of child abuse and neglect and program goals (e.g. social isolation, limited knowledge in child rearing).
- (2) If programs are to include fathers or partners in interventions, their presence should also be included in research designs. Studies could then evaluate their attitudes, expectations, self-esteem, and the quality of their interactions with the infants.
- (3) Researchers should provide clear, operational definitions of child abuse and neglect so that the number of cases occurring during and after the intervention can be reported and the incidence rate properly measured.
- (4) More follow-up studies should be conducted to evaluate the long-term effects of the home visiting programs on the incidence of child abuse and neglect, social support, parent-infant interactions and other risk indicators of child maltreatment. Furthermore, future follow-up studies should evaluate the long-term consequences of programs employing paraprofessionals. In fact, only three follow-up studies in this review were conducted with programs hiring paraprofessionals (Andrews et al., 1982; Caruso, 1989; Gray & Ruttle, 1980). Finally, it is recommended that future studies continue to evaluate the characteristics of participants who benefit the most and the least from interventions as well as the optimal length of home visits.

References

- Affholter, D.P., Connell, D. & Nauta, M.J. (1983). Evaluation of the child and family resource program: Early evidence of parent-child interaction effects. *Evaluation Review*, 7, 65-79.
- Affleck, G., Tennen, H., Rowe, J., Roscher, B. & Walker, L. (1989). Effects of formal support on mothers adaptation to the hospital-to-home transition of high-risk infants: The benefits and costs of helping. *Child Development*, 60, 488-501.
- Andrew, S.R., Blumenthal, J.B., Johnson, D.L., Kahn, A.J., Ferguson, C.J., Lasater, T.M., Malone, P.E. & Wallace, D.B. (1982). The skills of mothering: A study of parent child development centers. *Monographs of the Society for Research on Child Development*, 47 (6, Serial No. 198).
- Armstrong, K.A. (1981). A treatment and education program for parents and children who are at-risk of abuse and neglect. *Child Abuse and Neglect*, 5, 167-175.
- Armstrong, K.A. & Fraley, Y.L. (1985). What happens to the families after they leave the program? *Children Today*, 14, 17-20.
- Barkauskas, V.H. (1983). Effectiveness of public health nurse home visits to primiparous mothers and their infants. *American Journal of Public Health*, 73, 573-580.
- Barnard, K.E., Magyary, D., Summer, G., Booth, C.L., Mitchell, S.K. & Spieker, S.J. (1988). Prevention of parenting alterations for women with low social support. *Psychiatry*, 51, 248-253.
- Barrera, M.E., Rosenbaum, P.L. & Cunningham, C.E. (1986). Early home intervention with low birthweight infants and their parents. *Child Development*, 57, 20-33.
- Barrera, M.E., Kitching, K.J., Cunningham, C.C., Doucet, D. & Rosenbaum, P.L. (1990). A 3-year early intervention follow-up study with low birthweight infants and their parents. *Topics in Early Childhood Special Education*, 10, 363-370.
- Barth, R.P. (1991). An experimental evaluation of in-home child abuse prevention services. *Child Abuse and Neglect*, 15, 363-375.
- Barth, R.P., Hacking, S. & Ash, J.R. (1988). Preventing child abuse: An experimental evaluation of the child parent enrichment project. *Journal of Primary Prevention*, 8, 201-217.
- Booth, C.L., Mitchell, S.K., Barnard, K.E. & Spieker, S.J. (1989). Development of maternal social skills in multiproblem families: Effects on the mother-child relationship. *Developmental Psychology*, 25, 403-412.
- Caruso, G.L. (1989). Optimum growth project: support for families with young children. *Prevention in Human Services*, 6, 123-139.
- Dawson, P.M., Robinson, J.L., Butterfield, P.M., van Doorninck, W.J., Gaensbauer, T. J. & Harmon, R.J. (1990). Supporting new parents through home visits: Effects on mother-infant interaction. *Topics in Early Childhood Special Education*, 10, 29-44.
- Dawson, P.M., van Doorninck, W.J. & Robinson, J.L. (1989). Effects of home-based, informal social support on child health. *Developmental and Behavioral Pediatrics*, 10, 63-67.

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- Durand, D., Massé, R. & Ouellet, F. (1989). Intervenantes non-professionnelles et prévention de l'enfance maltraitée: Évaluation du projet De la Visite. *Santé Mentale au Québec*, 14, 26-38.
- Elovson, A.C. (1981). Paraprofessionals in the home. In S.S. Robin & M.O. Wagenfeld (Eds.), *Paraprofessionals in the human services* (Vol. 6, pp.279-205), New-York: Human Sciences Press.
- Field, T.M., Widmayer, S.M., Stringer, S. & Ignatoff, E. (1980). Teenage, lower-class, black mothers and their preterm infants: An intervention and development follow-up. *Child Development*, 51, 426-436.
- Fink, A. & McCloskey, L. (1990). Moving child abuse and neglect prevention programs forward: Improving program evaluations. *Child Abuse and Neglect*, 14, 187-206.
- Gray, S.W. & Ruttle, K. (1980). The family-oriented home visiting program: A longitudinal study. *Genetic Psychology Monographs*, 102, 299-316.
- Heinicke, C.M., Beckwith, L. & Thompson, A. (1988). Early intervention in the family system: a framework and review. *Infant Mental Health Journal*, 9, 111-141.
- Helfer, R.E. (1982). A review of the literature on the prevention of child abuse and neglect. *Child Abuse and Neglect*, 6, 251-261.
- Huxley, P. & Warner, R. (1993). Primary prevention of parenting dysfunction in high-risk cases. *American Journal of Orthopsychiatry*, 65, 582-588.
- Johnson, D.L. & Breckenridge, J.N. (1982). The Houston parent-child development center and the primary prevention of behaviour problems in young children. *American Journal of Community Psychology*, 10, 305-316.
- Kowal, L.W., Kottmeier, C.P., Ayoub, C.C., Komives, J.A., Robinson, D.S. & Allen, J.P. (1989). Characteristics of families at risk of problems in parenting: Findings from a home-based secondary prevention program. *Child Welfare*, 68, 529-538.
- Larson, C.P. (1980). Efficacy of parental and post-partum home visits. *Pediatrics*, 66,191-197.
- Lutzer, J.R. & Rice, J.M. (1984). Project 12-ways: Measuring outcome of a large in-home service for treatment and prevention of child abuse and neglect. *Child Abuse and Neglect*, 8, 519-524.
- Lutzer, J.R. & Rice, J.M. (1987). Using recidivism data to evaluate project 12-ways: An ecobehavioral approach to the treatment and prevention of child abuse and neglect. *Journal of Family Violence*, 2, 283-290.
- Lyons-Ruth, K., Connell, D.B., Grunbaum, H.U. & Botein, S. (1990). Infants at social risk: maternal depression and family support services as mediators of infant development and security attachment. *Child Development*, 61, 85-98.
- Marcenko, M.O. & Spence, M. (1994). Home visitation services for at-risk pregnant and post-partum women: A randomized trial. *American Journal of Orthopsychiatry*, 64, 468-478.
- National Committee to Prevent Child Abuse. (1996). *Child Abuse and Neglect Statistics* [Online]. Available: <http://www.childabuse.org/rsrch2.html>
- Nurcombe, B., Howell, D.C., Rauh, V.A., Teti, D.M., Ruoff, P. & Brennan, J. (1984). An intervention program for mothers of low birthweight infants: Preliminary results. *Journal of the American Academy of Child Psychiatry*, 23, 319-325.

- Olds, D.L. (1988). Common design and methodological problems encountered in evaluating family support services: illustrations from the prenatal/early infancy project. In H.B. Weiss & F.H. Jacobs (Eds.). *Evaluating family programs* (pp. 239-265). New-York: Aldine de Gruyter.
- Olds, D.L., Henderson, C.R., Chamberlin, R. & Tatelbaum, R. (1986). Preventing child abuse and neglect: A randomized trial of nurse home visitation. *Pediatrics*, 78, 65-78.
- Olds, D.L., Henderson, C.R., Tatelbaum, R. & Chamberlin, R. (1988). Improving the life-course development of socially disadvantaged mothers: A randomized trial of nurse home visitation. *American Journal of Public Health*, 78, 1436-1445.
- Olds, D.L., Henderson, C.R., Kitzman, H. & Cole, R. (1995). Effects of prenatal and infancy nurse home visitation on surveillance of child maltreatment. *Pediatrics*, 95, 89-98.
- Roberts, R.N. & Wasik, B.H. (1990). Home visiting programs for families with children birth to three: Results of a national survey. *Journal of Early Intervention*, 14, 274-284.
- Séguin, L., Ferland, F., Ouellet, D. & Lambert, J. (1987). Évaluation de l'efficacité d'interventions préventives auprès des parents à la période périnatale. *Canadian Journal of Public Health*, 78, 398-402.
- Seitz, V., Rosenbaum, L.K. & Apfel, N.H. (1985). Effects on family support intervention: A ten-year follow-up. *Child Development*, 56, 376-391.
- Siegel, E., Bauman, K.E., Schaefer, E.S., Saunders, M.M. & Ingram, D.D. (1980). Hospital and home support during infancy: Impact on maternal attachment, child abuse and neglect, and health care utilization. *Pediatrics*, 66, 183-190.
- Slaughter, D.T. (1983). Early intervention and its effects on maternal and child development. *Monographs of the Society for Research in Child Development*, 48 (4, Serial No. 202).
- Stevens, J., Bailey, V. & Simpson, J. (1988). Feasible intervention in families with parenting difficulties: A primary preventive perspective on child abuse. In K. Browne, C. Davies & P. Stratton (Eds.) *Early prediction and prevention of child abuse*. New-York: John Wiley & Sons.
- Taylor, D.K. & Beauchamp, C. (1988). Hospital-based primary prevention strategy in child abuse: A multi-level needs assessment. *Child Abuse and Neglect*, 12, 343-354.
- Villar, J., Farnot, U., Barros, F., Victora, C., Langer, A. & Belizan, J.M. (1992). A randomized trial of psychosocial support during high-risk pregnancies. *The New England Journal of Medicine*, 327, 1266-1271.
- Wekerle, C. & Wolfe, D.A. (1993). Prevention of child physical abuse: Promising new directions. *Clinical Psychology Review*, 13, 501-540.

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