



## Implementing paraprofessional strength-based early intervention home visitations

David B. Mykota\*

Department of Educational Psychology and Special Education, College of Education, University of Saskatchewan, 28 Campus Drive, Saskatoon, SK, Canada S7N 0X1

### ARTICLE INFO

#### Article history:

Received 7 November 2007

Received in revised form

25 March 2008

Accepted 30 March 2008

#### Keywords:

Early intervention

Paraprofessional home visitations

Hawaii Healthy Start

General inductive approach

### ABSTRACT

The purpose of the present study is to evaluate the implementation process for Parenting Plus, an early intervention program in a rural, western Canadian health district. Parenting Plus, as modeled after Hawaii Healthy Start, provides strength-based paraprofessional home visitations to overburdened parents of newborns. The general inductive approach guided the studies design and the methods used for data collection and analysis. Semi-structured in-depth interviews were conducted with health care practitioners and focus groups with program participants were held until theoretical saturation was achieved for both. Recommendations for policy and practice address the need for intersectoral involvement as crucial to a strength-based pilot project's success. Future research needs not only to look at the mode of service delivery but also, more importantly, at how the characteristics of the home visitor can effect change in the participant and what level of experience or education (paraprofessional or professional) is best suited to a particular client population.

© 2008 Elsevier Ltd. All rights reserved.

### 1. Introduction

Health care delivery in rural<sup>1</sup> and remote areas faces many challenges as it is has often been assumed that the policies developed and implemented in urban locales are deemed appropriate for rural environs (Kulig, Nahachewsky, Thomlinson, Macleod, & Curran, 2004). Geographical location, proximity to major population centers, and population density all have an impact on the accessibility and provision of health care services in remote and rural settings (Pong, 2002). When it comes to evaluating health care programs in rural areas, it is even more difficult due to their complex nature, the lack of control groups, and fewer numbers participating (Beaulieu & Webb, 2002).

\* Tel.: +1 306 966 5258; fax: +1 306 966 7719.

E-mail address: [david.mykota@usask.ca](mailto:david.mykota@usask.ca)

<sup>1</sup> The rural area of Canada is the area that remains after the delineation of urban areas, which have been delineated using current census population data. Taken together, urban and rural areas cover all of Canada. Within rural areas, population densities and living conditions can vary greatly. Included in rural areas are:

- small towns, villages and other populated places with less than 1000 population according to the current census;
  - rural fringes of census metropolitan areas and census agglomerations that may contain estate lots, as well as agricultural, undeveloped and non-developable lands;
  - agricultural lands;
  - remote and wilderness areas.
- (Statistics Canada, 2007)

In making the healthy development of children through the strengthening of families one of its top priorities, a rural health district in western Canada embarked on a pilot project, Parenting Plus, to begin the development of a comprehensive, coordinated system of supports and services for families of children zero to three. Parenting Plus, as modeled after Hawaii Healthy Start, provides strength-based paraprofessional home visitations to overburdened parents of newborns. The goal of the program is to strengthen families through the personal development of young parents that includes their ability to use community-based resources to affect positive parenting outcomes.

Given this scenario, the purpose of the present study is to evaluate the implementation process for Parenting Plus. The objective of the evaluation is to develop an understanding of the model of service delivery that evolved, the characteristics of the implementation process, and how participants experienced Parenting Plus. The information derived will inform present and subsequent efforts by reporting on the fidelity of program implementation and the model of program delivery while at the same time integrating the experiences of participants and health care practitioners. The study is unique in that a utilization-focused framework involving stakeholders resulted in an implementation evaluation using the general inductive approach (Thomas, 2006) to qualitative analysis.

#### 1.1. Parenting Plus

The overriding goal of Parenting Plus is to assist communities and families in developing strategies for promoting optimal child

development and improving family functioning. To attain this goal, Parenting Plus has been modeled after the Hawaii Healthy Start system of program delivery which is described within the context of four integrated components (Hawaii Department of Health, Maternal and Child Health Branch, 1994a, 2004b). The first component relates to systematic screening and assessment of families through a two-stage screening process. The second element involves paraprofessional home visitations that use a strength-based approach to improve family functioning and reduce child abuse and neglect. The third program section relates to the establishment and maintenance of linkages between family, physician, public-health nurse, or community-health nurse. The fourth program constituent of the model seeks to maintain and establish referral to and coordination with community services for families.

Like Hawaii Healthy Start, Parenting Plus utilizes a two-stage screening and assessment process for early identification. The goal is to provide universal screening of all newborns and to identify overburdened families residing in the Pipestone Health District. For Parenting Plus, this includes the completion of a medical screen for physical and psychosocial risk status of the birth mother for all live births that occur in the district. As well, the Parenting Plus coordinator conducts a follow-up psychosocial assessment using the Family Stress Checklist (Kempe, 1976) for those mothers receiving a positive screen. Thus, overburdened is defined by elevated levels of psychosocial risk as determined by the Family Stress Checklist which includes risk factors that relate to abuse and neglect of the child, harsh parenting practices, substance abuse, criminal behavior, and mental illness. By using a two-stage screening process, Parenting Plus is able to determine if the family is overburdened and eligible for home-visiting services. This is a unique aspect of the program where pro-active case findings with the Family Stress Checklist (Kempe, 1976) are used to identify those families in need of services before problems occur.

In Parenting Plus, a strength-based model of care augments the logic of the service delivery and home visitations provided. Although Parenting Plus program protocol does call for the assessment of psychosocial risk, it is clearly defined as a strength-based program. Within the model of service delivery the paraprofessional Family Support Workers (FSWs), who provide the home-visiting services, establish a partnership with the family that focuses on the parents' strengths and capacities. By following a strength-based system of service delivery for early childhood development in the Pipestone Health District it is believed that Parenting Plus will contribute to the improvement of the health, development, and well-being of children and families.

### 1.2. Hawaii Healthy Start

Of the home-visiting programs that exist, the one that is most relevant to the present discussion is Hawaii Healthy Start, the model for Parenting Plus. Hawaii Healthy Start is an interesting program to examine because not only is its main goal to reduce child abuse and neglect but in the way that it approaches the problem. To affect positive parenting outcomes and the healthy development of newborns and children, Hawaii Healthy Start enhances parents' ability to utilize community-based resources. The present model of the program as implemented in the Pipestone Health District is viewed as being strength-based. The original pilot program as based on Kempe's lay therapy (Gray, Cutler, Dean, & Kempe, 1979; Kempe, 1976) and Frailberg's (1980) work in the clinical mental health of infants was closely related to the theory of transactional regulation. Recent implementations of the Hawaii Healthy Start model, including Parenting Plus, have seen the evolution of the program into a strength-based approach

to early intervention that incorporates elements of the resource-based model.

When the original evaluation of the program was completed (National Center on Child Abuse Prevention Research, 1996) findings indicated that:

1. Healthy Start families provided a significantly more nurturing environment for their infants;
2. mothers were significantly less punitive and restrictive of their children; and
3. mothers had significantly reduced their risk for potential abuse, from moderate to low risk (p. 25).

However, Duggan et al. (1999) believed previous research and evaluation efforts surrounding Healthy Start programs were compromised and criticized the National Committee to Prevent Child Abuse study as being limited methodologically making the interpretations of the results and the reaching of conclusions difficult to achieve. To rectify these concerns a more rigorous evaluation of Hawaii Health Start was planned (Duggan et al., 1999, 2000) with evaluation results indicating that significant departures from the original demonstration model in program fidelity and service delivery had occurred (Duggan et al., 1999, 2000).

Subsequent evaluations of Hawaii Healthy Start point out that rates of child maltreatment and abuse are not reduced because of the home visitations (Duggan, McFarlane, et al., 2004) and there is not a reduction in parental risk factors associated with child abuse (Duggan, Fuddy, et al., 2004). In part, this might be due to departures from the original model now implemented and a movement towards a system of delivery that more closely approximates a strength-based approach coupled with the perceived lack of efficacy surrounding paraprofessional home visitations (Duggan, Fuddy, et al., 2004; Duggan, McFarlane, et al., 2004).

The research conducted on Hawaii Healthy Start has several important implications for paraprofessional home visitations like Parenting Plus. First, although control groups are advocated for to determine quantifiable outcome effects, not all home visitation programs, especially those in rural locales (Beaulieu & Webb, 2002), have access to resources required for large-scale randomized trials (Duggan et al., 1999). Second, it is important to realize that evaluations of home visitations are often so focused on outcomes that the process of care is at times neglected. Consequently, in conducting process evaluations of home visitations, it is important to consider not only the provider's perspective but also that of the family (Duggan et al., 1999). Local values and needs must also be understood in relation to how they effect implementation of the program model. Thus, it is ill-advised to adopt a home-visiting program simply because of its success in other settings without considering the context in which it is to be implemented (Duggan, McFarlane, et al., 2004; Duggan et al., 1999).

To complement existing quantitative studies of the Hawaii Healthy Start program model, Duggan, McFarlane, et al. (2004) advocate for qualitative research that examines process variables related to the home visitations provided. To address this gap in the research literature the qualitative results on the process of implementation and service delivery in a rural western Canadian early intervention program, Parenting Plus, as modeled after Hawaii Healthy Start are presented.

### 1.3. Target audience

Parenting Plus targets all mothers of newborns that reside in the Pipestone Health District, who are identified as overburdened.

**Table 1**  
Participant demographic profile

	Frequency	Percent
<b>Age</b>		
16–19 years	7	39
20–23 years	5	27
24–27 years <sup>a</sup>	3	17
>30	2	17
	18	100
<b>Marital status</b>		
Single	13	72
Common law	4	22
Married	1	6
	18	100
<b>Employment</b>		
Employed	4	22
Unemployed	14	78
	18	100
<b>Education</b>		
<Grade 12	16	83
>Grade 12	2	17
	18	100
<b>Background</b>		
Other <sup>b</sup>	10	56
First Nation	8	44
	18	100

<sup>a</sup> There were no participants of 28 and 29 years of age.

<sup>b</sup> Not First Nation.

The Pipestone Health District spans the TransCanada Highway from the east of Regina, Saskatchewan to the Manitoba border. At the time of assessment, the health district had a population of 19,318 representing 1.9% of the provincial population. The number of children in the health district under the age of 10 was 2506 representing 12.8% of the district's population. The health district also encompassed five First Nation<sup>2</sup> communities that comprised 29% of the district's population.

Following a two-stage-screening protocol, modeled after Hawaii Healthy Start, 136 mothers of newborns were screened and of that number, 70% accepted further assessment. The purpose behind the development of a two-stage screen is to determine which families are at high levels of psychosocial risk and are eligible for Parenting Plus. In this way, the number of false positives and false negatives are reduced. Of the 26 birth mothers found to have positive assessments 18 were currently receiving paraprofessional home visitations, while the other 8 had been discharged. Of those enrolled into the program 72% were under 25 years of age, 72% were single mothers, 78% were unemployed, 83% had less than Grade 12 and 44% were First Nation (see Table 1).

## 2. Evaluation framework

In assessing the evaluative needs for Parenting Plus, a series of stakeholder meetings that included the principal investigator were held over a 10-month period leading up to initial data collection. Each of the stakeholders involved had a personal interest in the promotion of early intervention and represented various sectors, including non-governmental organizations, the University of Saskatchewan, Saskatchewan Health, and the Pipestone Health District. The purpose of the evaluation frame-

<sup>2</sup> First Nation is a term that came into common usage in the 1970s to replace the word "Indian". Although the term First Nation is widely used, no legal definition of it exists. The term has also been adopted to replace the word "Band" in the naming of communities (Indian and Northern Affairs Canada, 2002, p. 10).

work meetings was to define and clarify the evaluation from the perspective of intended users and stakeholders. As Parenting Plus is a pilot program, stakeholders decided that evaluation efforts be directed towards process as opposed to outcome variables.

The relevance of a process evaluation from an implementation perspective is that it allows for an examination of the fidelity of the program to the model from which it is derived. Furthermore, if the program is not similar to the one intended, a process evaluation aids in determining if this is due to an inadequacy in the design or to other reasons that affected the implementation process. According to Patton (1997), "[a] process evaluation focuses on the internal dynamics and actual operations of a program in an attempt to understand its strengths and weaknesses" (p. 206). From a utilization-focused perspective, this type of information is relevant to the evaluation of Parenting Plus because it seeks to find answers related to stakeholders needs.

The evaluation of Parenting Plus has three separate but interrelated objectives as outlined by stakeholders. The first was to determine how Parenting Plus as implemented compares to the program model, Hawaii Healthy Start. The second was to examine the characteristics of the process that either facilitated or hindered the program's development. The third was to solicit the participant's experience and perspective regarding the system of service delivery that evolved and was applied.

## 3. Methods

As the evaluation framework for Parenting Plus is an applied study of the implementation process, the general inductive approach (Thomas, 2006) to qualitative data analysis for program evaluations was used. The methods developed for data collection included semi-structured in-depth interviews (Wengraf, 2001) with health care practitioners and focus groups with birth mothers participating in Parenting Plus. Focus group and interview data was collected until theoretical saturation was reached, meaning no more new insights or understandings were being obtained from those being interviewed or participating in the focus groups (Kruger & Casey, 2000). Since the study involved research with human subjects, informed consent was required and therefore an ethics application was made and received from the University of Saskatchewan Committee on Ethics in Behavioural Science Research. As well, separate ethics applications were made and received from the Pipestone Health District, which is under provincial jurisdiction, and the First Nation Community Health Centers located in the Pipestone Health District, which are under the jurisdiction of the First Nation communities they serve.

### 3.1. Interviews

Semi-structured in-depth interviews (Wengraf, 2001) using purposeful sampling (Creswell, 1998) were conducted in person with 23 interview participants who had direct involvement with the program. This approach allowed for the exploration of themes relevant to program implementation and the stakeholder's evaluative needs. Those interviewed for the evaluation included: all health care professionals involved in screening at the out-of-district hospitals; all public-health nurses and community-health nurses from the health district who were involved with the program; Parenting Plus program staff; local physicians, health care administrators and early intervention stakeholders.

Wengraf (2001) argues that the definition of "in-depth" is comprised of two interrelated components:

1. To go into something "in depth" is to get more detailed knowledge about it.

2. To go into something “in depth” is to get a sense of how the apparently straightforward is actually more complicated, of how the “surface appearances” may be quite misleading about “depth realities” (p. 6).

In describing semi-structured interviews as being in-depth, Wengraf explains that the concept of depth can also be recast as one of width. Thus, in conceptualizing in-depth, it is clear that its salient features encompass a breadth of understanding that goes beyond surface meaning to discover knowledge-based findings about reality.

### 3.2. Focus groups

All parents participating in Parenting Plus received letters of invitation to attend the four focus groups with all 18 program participants currently receiving home visitations able to participate. As such, the focus groups were comprised of birth mothers who resided in the Pipestone Health District. Those attending were able to choose when they would be able to participate from the dates and locations offered for the focus groups. In turn, the focus group composition was heterogeneous in nature, which did not appear to affect the quality of participation. This type of sampling for either qualitative or quantitative research is referred to as convenience sampling as it is done based on subject availability (Miles & Huberman, 1994; Tashakkori & Teddlie, 1998). Stakeholders involved in establishing the evaluation framework made the decision to hold focus groups with the birth mothers because of the perceived difficulty in establishing trust and rapport necessary for semi-structured in-depth interviews. However, as participants shared understandings, insights, and experiences of the program with other participants during the focus groups, it was necessary that they be aware of their obligation to respect the privacy of other members of the group by not disclosing any shared personal information. As a result, a consent form that addressed ethical issues and the rights and responsibilities of focus group participants was developed.

### 3.3. Data analysis

One of the earliest proponents of the inductive approach was Patton (1990) who described it within the context of data analysis for program evaluations. Since then, inductive analysis has been reported widely within the research literature. Research with the inductive approach has been found in the areas of disability (Campbell & Jones, 2002; Guteng & Chappell, 2000), education (Dyson & O’Sullivan, 1998; Le-Mare & Sohbat, 2002; Shepardson, 1996), health care (Backett & Davison, 1995; Pope, Ziebland, & Mays, 2000), school/community psychology (Mykota & Muhajarine, 2005) and child abuse programs (Socolar et al., 2001).

Data for the focus groups and interviews were analyzed separately as the mode of data collection and the subject samples were distinct (i.e. birth mothers for the focus groups and health care practitioners for the interviews). In using the general inductive approach, the data analysis process involved clustering quotations around units of meaning and underlying categories until themes emerged. According to Thomas (2006) “(a) one segment may be coded into more than one category and (b) a considerable amount of text (e.g. 50% or more) may not be assigned to any category, because much of the text may not be relevant to the evaluation objectives” (p. 242).

The analysis was deemed complete when it was not possible to determine further underlying categories to create higher order

themes. The procedure for data analysis in the study included the following five steps:

1. The tapes were initially listened to by the researcher; the transcripts were read and reread until the researcher was fully familiar with the content.
2. Raw-data categories were identified in the form of quotations or paraphrases.
3. General inductive analysis was conducted to identify common themes of greater generality from the raw-data categories (identified in step 2). Higher level themes were labeled first-order or second-order themes, and the highest level was labeled as a general dimension (those of greatest abstraction).
4. The researcher’s individual biases were controlled for by respondent validation of the original transcripts, as well as participant review of the evolving categories and themes.
5. The researcher to provide a validity check conducted deductive analysis. In this respect, the researcher reread the transcripts to verify that all themes and categories were represented.

The results obtained through the inductive approach to qualitative data analysis, represent the emergence of the major dimensions that have evolved out of the semi-structured in-depth interviews and focus groups. Although multiple readings of the text allow for the emergence of units of meaning and eventually categories, the approach is also deductive in nature in that the research objectives of the evaluation influence the parameters by which data analysis is undertaken. As an applied research study, the results illustrate how the general inductive approach (Thomas, 2006) is used to summarize major dimensions and create a model for understanding based upon the objectives of the evaluation.

## 4. Results

The results for the semi-structured in-depth interviews revealed three major dimensions that were derived from 30 raw-data themes. Although the dimensions are represented as distinct, they are interrelated and interwoven across raw-data themes, first-order categories, and second-order categories. This approach allowed for the exploration of themes relevant to program implementation and the stakeholder’s evaluative needs. The results for the focus group revealed that the major dimension, Characteristics of Strength-Based Home Visitations emerged from 10 raw-data themes. For purposes of the evaluation, the focus groups aided in understanding, from the program participant’s viewpoint, the strengths and weaknesses of the program as it had been implemented.

### 4.1. Partnership building and communication

In conducting an inductive analysis of the interview data, the first major dimension, partnership building and communication, illustrates that ineffective partnership building and communication during the implementation of Parenting Plus challenged its development (see Fig. 1). Specifically, the interviews revealed a wide range of challenges that directly related to ineffective communication practices and the lack of opportunity to build partnerships. Building community readiness, consulting and collaborating with stakeholders, as well as formalizing the role of stakeholders through an advisory council were viewed as valuable activities that should be undertaken prior to the launching of new programs.

Respondents also spoke about the need for feedback. Systemically, feedback was viewed as integral for fostering effective

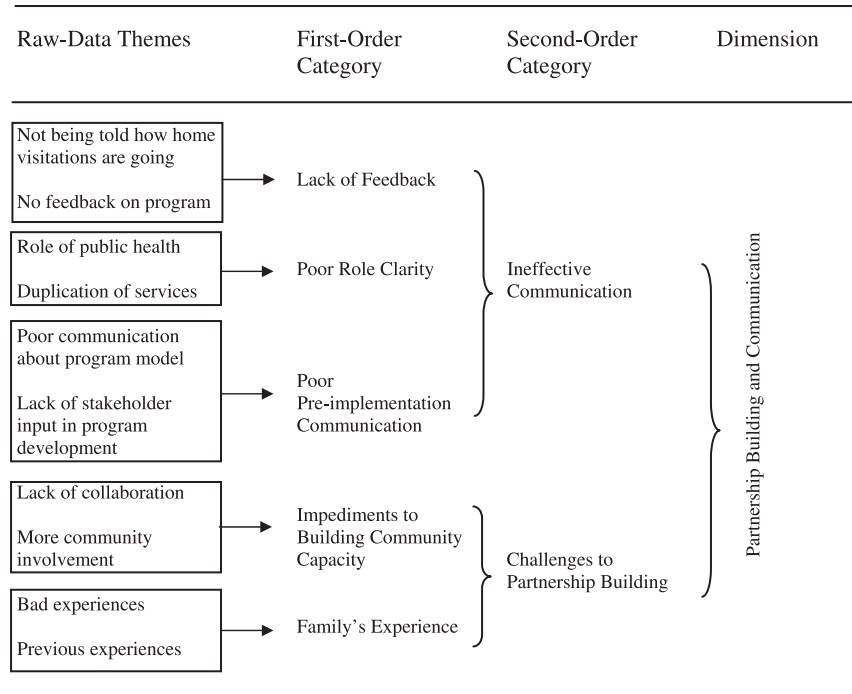


Fig. 1. Partnership Building and Communication dimension.

practices for developing intersectoral programs. Nurses who provided care to the mothers and infants, either through community (i.e. First Nation) or district health centers, viewed feedback as desirable and integral to maintaining the health and well-being of families. The following depicts how feedback surrounding the paraprofessional home visitations was required by public-health nurses.

What I would like to have better, is...more feedback from the worker that is providing service here. I have not actually heard from her. And I'm not really aware of what her areas of concern are with this client, what they're working on, and I'd kind of appreciate some feedback from her.

Interview participants also spoke about the need for feedback on the program's development, service delivery, and outcomes. This was viewed as desirable because it would aid in the promotion and development of Parenting Plus in the health district.

Clearly, challenges to the implementation of Parenting Plus arose in its inability, initially, to forge partnerships with intersectoral stakeholders. Unfortunately, as with many pilot projects, the time lines in place for the planning and development of the program were not adequate. This put Parenting Plus in a position of having to be implemented in order to meet funding criteria, without having the opportunity to do the work necessary for development and partnership building. In turn, some of the difficulties encountered during the implementation phase of the program were exacerbated by poor pre-implementation communication.

#### 4.2. Screening and assessment

In conducting an inductive analysis, the second major dimension derived from the semi-structured in-depth interviews with stakeholders was Screening and Assessment Concerns (see Fig. 2). Parenting Plus follows a two-stage screening and assessment

process for the identification of families at-risk that is modeled after Hawaii Healthy Start. The model calls for a medical record screen to be completed by a health care practitioner for all live births from the health district. If the screen was positive or seven or more items were unknown, an assessment by the program coordinator was conducted. Based on a positive assessment with the Family Stress Checklist (Kempe, 1976), the family was offered home visitations by Parenting Plus. Another service delivery option existed, however, if the family did not want to participate in home visitations but were still interested in the program. At the discretion of the family, Parenting Plus paraprofessionals continued to maintain contact for a 4-month period. This type of service provided by the paraprofessionals was described as creative outreach and was an entry point for families into the program. After 4 months, if the family had not accepted services, they were dropped from the caseload.

Screens were to be completed by out-of-district hospitals, district nurses (i.e. public and community-health nurses), and local physicians. In implementing the model, concerns were raised regarding the relevancy of the screen by both out-of-district and district nurses. Questions arose pertaining to the accurate identification of families at-risk and the potency of the fixed markers on the screen as predictors of psychosocial risk.

So had we a little bit more information, maybe even some background on the literature search on why they need to know about criminal history. Why do they need to know? What has been shown? Why is this a risk factor? And what about abortion, why is that a risk factor?

Ethical considerations experienced by health care practitioners, pertinent to the medical record screen for Parenting Plus, related to confidentiality of information obtained and informed consent. For example, health care practitioners, who completed the screen, questioned the forwarding of confidential information obtained on the families to Parenting Plus. As well, nurses

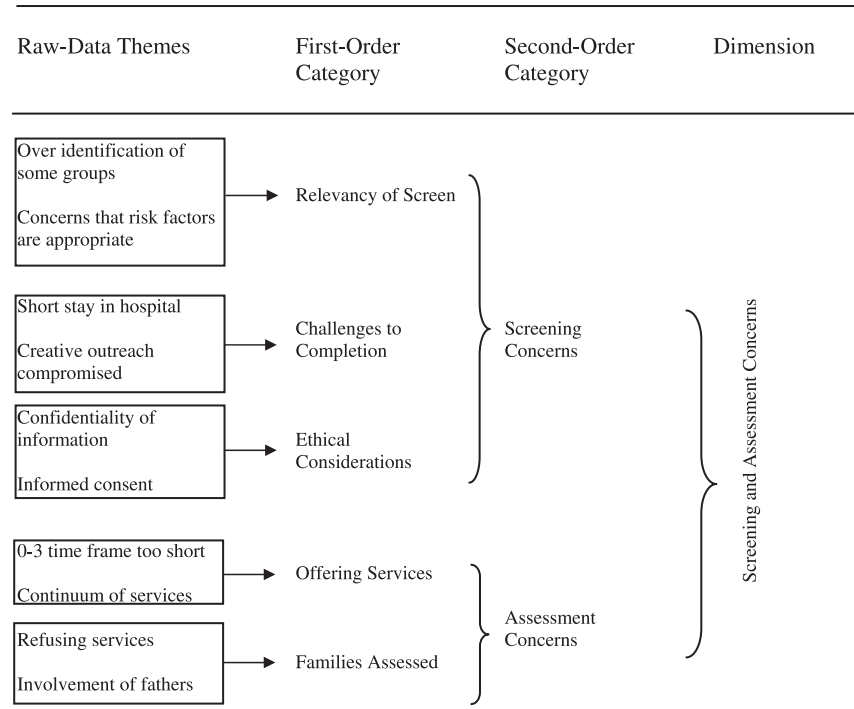


Fig. 2. Screening and Assessment Concerns dimension.

completing the screen at out-of-district hospitals were uncertain if informed consent was obtained from parents.

Screening is a very big concern of mine. I think great care has to be taken in screening and the diplomacy required when obtaining consent. I think we have to be careful for the intrusive way this is done. I asked the question at the meeting about consent. Does everybody consent to have the screening done? I mean the idea is right but families still need to be informed.

As procedural difficulties relating to the implementation of the model arose, the program adapted the protocol to fit local needs. Although the program model, Hawaii Healthy Start, called for the completion of screens while the mother was in the hospital, such a procedure proved unworkable. This was due to difficulties in obtaining information from the birth mother during her relatively brief stay in the hospital. In some cases, the Parenting Plus coordinator received medical record screens which were incomplete and required follow-up. A negative effect of screening being conducted through Parenting Plus was that increased responsibilities and demands were placed on the program coordinator that was not anticipated for during program planning. Nevertheless, this resulted in a more systematic and complete screening of parents. Other researchers have also questioned the logic of the Hawaii Healthy Start model and the apparent ambiguity and lack of explanation provided as to how the procurement and completion of the screens was to be handled by program staff (Wallach & Lister, 1995).

If the screen is positive then assessment for psychosocial risk determined by interviews with the mother by the program coordinator using the Family Stress Checklist (1976) were conducted. According to program protocol, a score >25 on the Family Stress Checklist (1976) by either parent is used as a clinical cut-off to determine if the assessment is positive and if the family was to be offered home visits. However, few fathers were present

at the assessment, and items for the father were derived through conversation with the mother or were unknown. When reviewing the risk factors that present themselves during assessment, it was found that very few parents self-disclose surrounding child abuse and neglect or harsh disciplining practices. The following quotation from a program staff member depicts assessment concerns regarding the involvement of fathers.

For some reason there is not always that many men involved. It is hard to get the fathers, some don't have fathers. They are never around, so you cannot assess them. It is always the mother.

Health care practitioners also believed that the birth to 3-month period was not necessarily a time of perceived stress by the family in which the provision of home visitations was deemed warranted and that the program could more effectively reach its target population if the age of acceptance was expanded.

#### 4.3. Challenges to Parenting Plus

The third major dimension that emerged from the semi-structured in-depth interviews was Challenges to Parenting Plus, which was derived from 10 raw-data themes (see Fig. 3). Results illustrated that a continuing challenge to the transferability of the Hawaii Healthy Start model in rural or geographically remote health districts will be participant mobility and retaining families. Specifically, FSWs spent a great deal of time attempting to contact families at home or on the telephone to engage them in home visitations. This was reinforced in the interviews where it was found that participant mobility, the associated travel costs, and time involved trying to engage some families proved to be challenging. The FSWs spoke about how being in a rural health district effected the home visitations and the amount of contact that they maintained with participants.

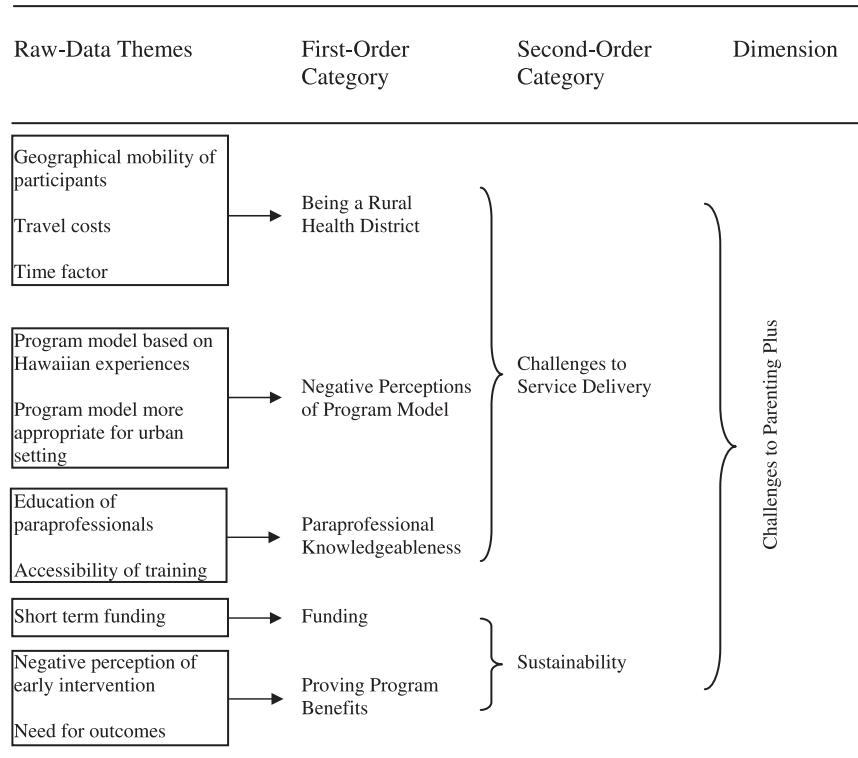


Fig. 3. Challenges to Parenting Plus dimension.

Well travel is certainly one of the aspects that take up a lot of time in a rural health district. One of the issues is that a Family Support Worker may spend two hours at a home visitation with a family, and four hours on the road to get there and get back. I am wondering if there is a better way we can do this so that there is not as much travel but then it might involve people who are not full time, then you run into problems of less education and less commitment.

The interviews also revealed that the knowledgeableness of paraprofessionals was questioned. Many of those interviewed believed the paraprofessionals (FSWs) were lacking in formal training which consequently affected the credibility of the early intervention. Public-health nurses questioned whether it was best practice to provide a service delivery to high-risk families delivered by paraprofessionals:

I think what they have to look at in this program is the quality of their workers, the quality of education. I mean if it takes four years of education before public health nurses can come to the home and the same for a social worker, why do we think we're putting our highest risk people in the hands of people with less education. That is not fair to those people because they may be lower income, more disadvantaged, have higher determinants of health.

This corresponds with work conducted by Hiatt, Sampson, and Baird (1997) who found that "given their often limited formal education and training, paraprofessionals encountered questions about their ability from established service professionals" (p. 81). Further, Hiatt et al. (1997) report that paraprofessionals also obtained resistance when they were trying to obtain or relay information regarding the families they were serving during home visitations to health care professionals. This in part might explain why in the present study there was a lack of feedback and role clarity between the FSWs and other health care professionals as

illustrated in the partnership building and communication major dimension.

#### 4.4. Characteristics of Strength-Based Home Visitations

In conducting an inductive analysis for the focus group data, it was found that the major dimension, Characteristics of Strength-Based Home Visitations emerged (see Fig. 4). For Parenting Plus, what birth mothers valued most about the home visitations was relationship building and enhancing familial well-being. The importance of being non-judgemental, providing emotional support and helping family's recognize their own strengths was illustrated by the following:

...we are all worth it, because there are a lot of feelings of worthlessness out there when you have a child and you are in a relationship and you are not happy with it and all those things. Having Family Support Workers come and talk to you in your house, it just helps you emotionally. They may send you on the right road to get out of the relationship if it is the right thing for you. They may let you know that there is somebody to lean on. If you are in those sorts of situations, there is no judgment.

Thus, providing emotional support was articulated as a salient and necessary goal for the program. The following birth mother portrays the relationship between increasing self-esteem and emotional support:

We would work together and look at strengths to increase self-esteem in order to feel self-reliant and self-sufficient. ... You have to feel good about yourself, and that is increasing ones self-esteem and that is important when I am having a home visit.

The results from the focus groups reflected the most salient features of the paraprofessional home-visiting activities that

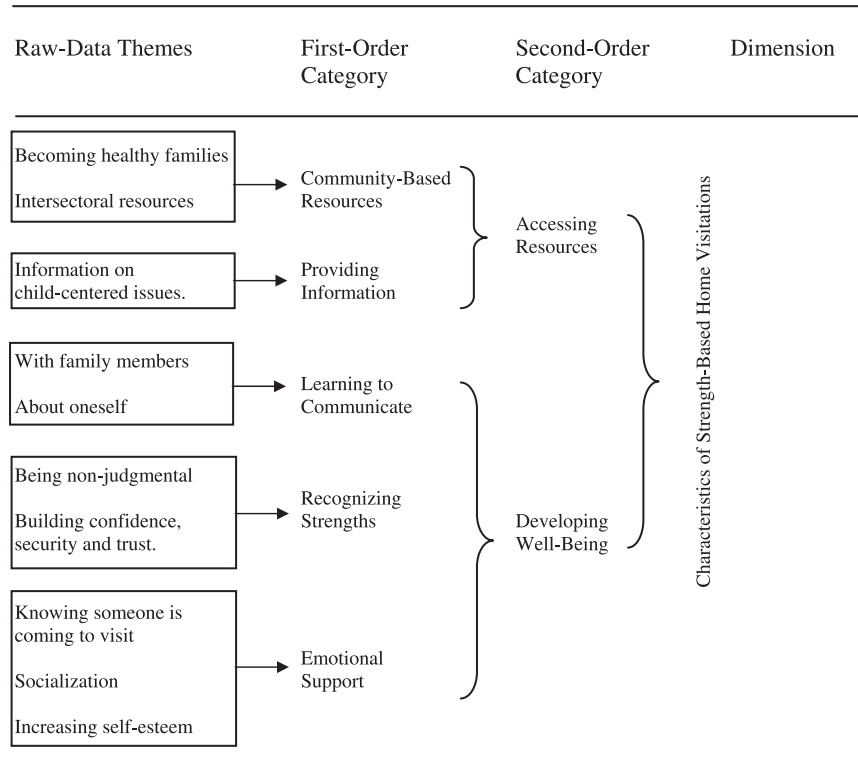


Fig. 4. Characteristics of Strength-Based Home Visitations dimension.

occurred in Parenting Plus from the birth mother's perspective. They spoke positively about the paraprofessional home visitations and were receptive to the program. These results confirm that a strength-based approach was being utilized and was viewed as an important feature to those families served. Furthermore, accessing resources and developing the well-being of families were features of the program that tended to predominate.

During the focus group sessions, birth mothers discussed how having FSWs from the community helped engage and maintain families. This was especially important to First Nation focus group participants. To address this concern there was a conscious effort on the part of Parenting Plus to hire FSWs from the communities in the health district to ensure a strength-based approach was facilitated. Focus group participants also recommended that the program implement a system for monitoring short- and long-term outcomes to gauge its effectiveness. Participants felt such a tracking system would provide a means to ascertain if they were recognizing their own strengths and becoming self-sufficient and self-reliant. As a result, the extent to which families develop trust and engage in program delivery is an important consideration that needs to be addressed in the broader context of home visitations and the models of service delivery practiced.

## 5. Discussion

### 5.1. Conceptual model

To demonstrate how Parenting Plus had been implemented a model of the service delivery is depicted in Fig. 5. The components of the program included systematic screening and assessment, the provision of paraprofessional home visitations, and accessing intersectoral resources by connecting families to assets available in the community. The program implemented and now in operation corresponds very closely with the components of the

Hawaii Healthy Start model that included providing supportive services in parent skill building, emotional support, information about child care, and linkages to intersectoral resources.

As the model illustrates, by following a two-stage screening and assessment process, of those families assessed at high risk, two possible service delivery options exist. Either the family directly enrolls in the home visitations, or creative outreach was offered. If the family accepts creative outreach, the FSW maintains contact with the family for a 4-month period at the end of which the family had the option to enroll in the home visitations.

Once a family accepts home visitations, the FSW attempts to engage and establish rapport with the family. The home visitations offered provide individualized services to maintain the health and well-being of the family through therapeutic support. This involves the establishment of an empathetic relationship, which allows the client the opportunity to express personal thoughts and feelings. The key features of the home visitations according to the birth mothers included: (a) teaching communication skills, (b) helping families recognize their strengths, (c) providing child-centered information, (d) offering emotional support, (e) building confidence and trust, (f) providing respite and child care, and (g) accessing intersectoral resources. The last feature of the service delivery model, accessing intersectoral resources, can occur either formally or informally. For the benefit of the family being served, the FSW attempts to establish linkages with community-based services such as: (a) public-health nurses, (b) community-health nurses, (c) physicians, (d) speech language pathologists, (e) educational services, (f) psychological services, (g) counselors, (h) addiction services, and (i) mental health professionals.

### 5.2. Implications of findings

The first major finding shows that ineffective partnership building and communication during the implementation of

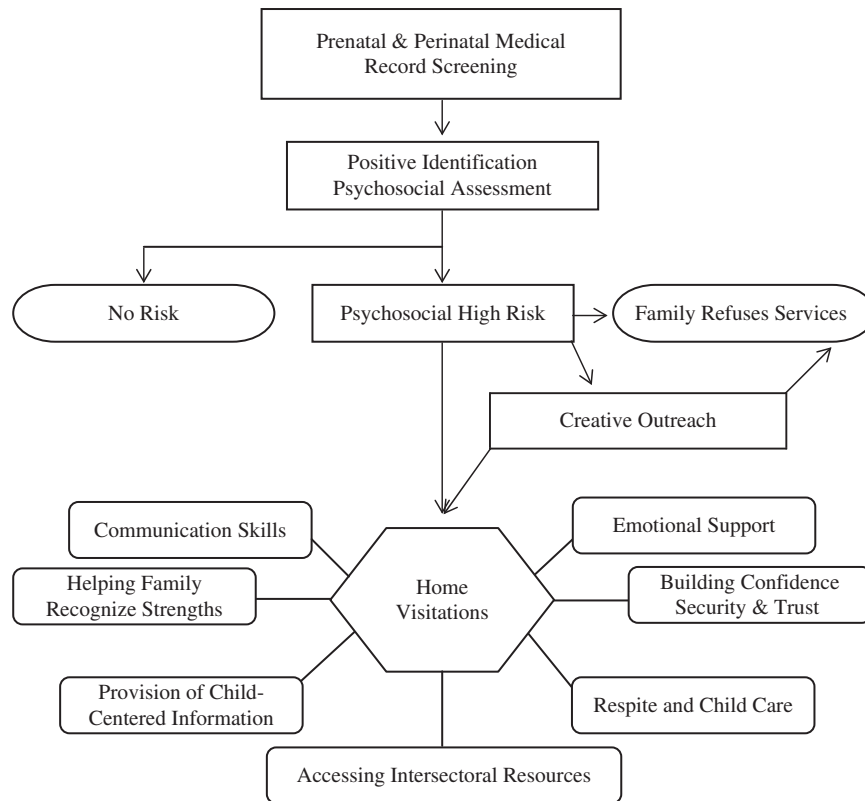


Fig. 5. Conceptual model of Parenting Plus.

Parenting Plus challenged its development. Specifically, the interviews revealed a wide range of obstacles that directly related to unsuccessful communication practices and the failure to form alliances. Difficulties in establishing agreements with intersectoral stakeholders for the provision of screens during program implementation resulted in lower than anticipated enrollment in the program initially. From a program development perspective, these findings are significant. They underscore the value of developing participatory structures prior to the launching of new programs. Building community readiness, consulting, and collaborating with stakeholders, as well as formalizing the role of stakeholders through an advisory council are valuable activities that should be undertaken prior to the launching of new programs. This is integral when intersectoral resources are involved in either the planning or implementation of the program.

What distinguishes resource-based interventions that emulate strength-based practices and those that target specific stressors, such as Guralnick's (1997; 1998) risk factors model, is that the resource-based model attempts to draw on the family's ability to access opportunities within the community. Although Dunst and Trivette (1997) acknowledge that families do and can influence child outcomes, the purpose of the intervention is to mediate the provision of resources and supports so that child learning and development are enhanced. As the third component of Parenting Plus relates to the establishment and maintenance of linkages between the family and community supports, it is imperative that mechanisms for feedback be established. Lack of feedback among stakeholders who were health care providers in the Pipestone Health District placed the implementation of the program at a disadvantage. Participatory structures and partnerships with intersectoral stakeholders need to be implemented otherwise the family's ability to maximize benefits from the home visitations could be compromised.

Even though Parenting Plus offered a strength-based system of service delivery and was characterized by program components that included informal community support for all families and mechanisms for the coordination of services and supports, it would be wrong to assume that the community was the central feature of the intervention. Rather, results from the present evaluation would seem to acknowledge that although Parenting Plus does emphasize strength-based practices that are inherent to the resource-based approach, it initially had not fully developed all components of the model to the same degree. Greater emphasis during the implementation phase of the program was directed towards developing sources of support and building on family strengths. While the other two components of the resource-based model (Trivette, Dunst, & Deal, 1997) that include community resource mapping and building community capacity were not fully developed. This in part occurred because of difficulties owing to partnership building and communication and the subsequent program resources directed towards this component of the model. However, Parenting Plus has continued to evolve and work towards assisting families to access intersectoral resources through the development of informal and formal community supports for the child and family served.

The findings reported also support research conducted by Offord et al. (1999) and Guterman (1999) on targeted approaches to early intervention. According to Offord et al. (1999), there are a number of disadvantages to the targeted approach. For example, one concern is the stability of the screen, which refers to the potential variability of risk status over time. If risk status changes from year to year, then repeated screens would be necessary. Because of this, the fixed markers used on a screen are of particular importance (Offord et al., 1999). In the present study, the birth to 3-month period was not considered a time of perceived stress experienced by the family. Thus, risk status

determined during this time might reflect a “honeymoon” period. As well, health care practitioners questioned what was known about the risk factors and the potency of the fixed markers on the screen to accurately identify families. Consequently, there was the potential for the screening and assessment process to inaccurately identify a family’s risk status and the possibility that families would refuse services because of perceived low risk. This variability in risk status is a major deterrent for targeted interventions as there is the potential for the positive predictive value and the negative predictive value of the screen to be compromised (Offord et al., 1999).

### 5.3. Lessons learned

The present study is distinctive in two important aspects. As an implementation evaluation, it is unique in both its evaluative framework and the methods used to answer the research questions. The study sought to explore the implementation process for Parenting Plus, an early childhood development home visitation program modeled after Hawaii Healthy Start. As Parenting Plus was in its developmental stages, it was thought that an evaluation examining the outcomes of the program was not warranted.

However, early intervention efforts successfully piloted, such that program stabilization has occurred, should focus on determining an intervention’s effectiveness. Although the effects of home-visiting programs might be promising, they need to be followed over time and to incorporate some form of cost–benefit analysis. In strength-based approaches like Parenting Plus, outcome measurement is further complicated because the intervention is broad based, encompasses a variety of domains, and incorporates resources both informally and formally (Powell, Batsche, Ferro, Fox, & Dunlap, 1997). For Parenting Plus, the program needs to delineate what child and family characteristics are amenable to change and what program features are more likely to contribute to this change. The implication for future evaluative efforts of early interventions like Parenting Plus is that they should examine the effect that a range of parenting practices can have on the health and development of the child and the family. This is important, as parenting variables tend to have the most significant effect on child development outcomes (Coulton, 1996; Earls & Buka, 1997, 2000; Molnar, Buka, Brennan, Holton, & Earls, 2003). In this respect, following a program’s implementation a more rigorous evaluation incorporating a variety of data collection methods including but not limited to interviews, direct observation, surveys, and checklists should occur.

Innovative methodologies and instrumentation are required to determine not only changes in child health and development but family functioning, as well. Furthermore, not all early intervention home visitations have the resources for large-scale randomized trials (Duggan et al., 2000). Therefore, policy makers and planners should incorporate the strongest internal evaluation methodologies when planning for the implementation and delivery of early intervention services.

## 6. Conclusion

The program implemented and now in operation maps closely with the components of the Hawaii Healthy Start model. Providing supportive services in parent skill building, emotional support, child care information, and linkages to intersectoral resources are the salient features of both the Hawaii Healthy Start model and Parenting Plus. This type of service delivery meets or exceeds parents expectations and is viewed positively by participating parents. Although, there was a difference of opinion

among health care practitioners involved in health care delivery as to what type of service—paraprofessional or professional—would better benefit families, having local community paraprofessionals has aided in establishing trust and rapport with participating parents. As such, the present study supports the contention that having a paraprofessional from the community is a desirable feature from the participants’ perspective. However, future research needs to not only look at the mode of service delivery but, more importantly, at how the characteristics of the home visitor can effect change in the participant and what level of experience or education in the paraprofessional is best suited to a particular client population.

Public-health nurses, community-health nurses, doctors, and hospitals are integral components in the referral process and are important to program promotion and implementation. Policy and program recommendations speak to the need for intersectoral involvement as being crucial to a strength-based project’s success. In addition, more time needs to be allocated, prior to program implementation for partnership building with stakeholders and the public. Public education and awareness surrounding the program model’s feasibility and applicability would aid in alleviating misconceptions and misunderstandings, build partnerships, and facilitate program implementation.

For pilot projects, implementation evaluations are important because they can inform subsequent efforts and stabilize the program. Moreover, they allow the opportunity to ascertain a project’s viability. This becomes increasingly important when evaluators are attempting to discern the relevance and power of outcomes. Stakeholders are better able to determine the causal linkages between project planning, development, service delivery, and those variables that either facilitated or impeded program implementation.

For programs modeled on Hawaii Healthy Start, Duggan et al. (1999) suggest that an examination of process variables relating to home visitations must be understood from the perspectives of the providers and the families. Local values and needs should be considered and it would be inappropriate to transfer a home-visiting program to another district simply because it had success in one setting without considering the new context (Duggan et al., 2000). As early intervention efforts continue to develop, implementation evaluations need to be undertaken during the formative phase of a program. Documenting the fidelity of early intervention efforts during implementation will provide information for reflection on how adaptations and modifications to a program have affected the system of service delivery and how these short-cycle decisions will affect its sustainability.

The difficulties practitioners have in attracting and retaining families at-risk who receive home visitations are well-documented (Britt, 1998; Duggan et al., 1999; Kitzman, Olds, Cole, & Yoos, 1997). Findings reported by Duggan et al. (1999) indicate attrition was a common problem in Hawaii Healthy Start. Of the programs evaluated, it was found that a number of families left the program because they no longer resided in the catchments served. In the present study, this was confirmed as it was believed the mobility of participants and the retention of families would create ongoing challenges to the sustainability of the Hawaii Healthy Start model in rural health districts.

In conclusion, general findings in the research literature agree that home visitations, either alone or in combination with a center-based approach, have demonstrated consistent results in improving maternal and child health, providing social support, and reducing child abuse and neglect. Thus, as the social environment is ever changing it is vital that early intervention efforts continue to be implemented and generalized within an integrated system of service delivery.

## Acknowledgements

The author would like to acknowledge the financial assistance received through the Health Transition Fund, Health Canada for the funding of the study. Points of views or opinions in this document are those of the author and do not necessarily represent the official position or policies of the Pipestone Health District or Health Canada. The author would also like to thank Dr. David Thomas from the University of Auckland, New Zealand for his advice on the general inductive approach to program evaluations.

## References

- Backett, K. C., & Davison, C. (1995). Life course and lifestyle: The social and cultural location of health behaviours. *Social Science and Medicine*, 40(5), 629–638.
- Beaulieu, J., & Webb, J. (2002). Challenges in evaluating rural health programs. *Journal of Rural Health*, 18(2), 281–285.
- Britt, D. W. (1998). Reaching out and making a difference: The context of meaning in a home based preschool program. *Journal of Community Psychology*, 26(2), 103–118.
- Campbell, E., & Jones, G. (2002). Sources of stress experienced by elite male wheelchair basketball players. *Adapted Physical Activity Quarterly*, 19(1), 82–99.
- Coulton, C. C. (1996). Effects of neighbourhoods on families and children: Implications for services. In A. J. Kahn, & S. B. Kamerman (Eds.), *Children and their families in big cities*. New York, NY: Cross-National Studies Program.
- Creswell, J. W. (1998). *Qualitative inquiry and research design: Choosing among five traditions*. Thousand Oaks, CA: Sage.
- Duggan, A., Fuddy, L., Burrell, L., Higman, S. M., McFarlane, E., Windham, A., et al. (2004). Randomized trial of a statewide home visiting program to prevent child abuse: Impact in reducing parental risk factors. *Child Abuse and Neglect*, 28, 623–643.
- Duggan, A., McFarlane, E., Fuddy, L., Burrell, L., Higman, S. M., Windham, A., et al. (2004). Randomized trial of a statewide home visiting program: Impact in preventing child abuse and neglect. *Child Abuse and Neglect*, 28, 597–622.
- Duggan, A., McFarlane, E., Windham, A., Rohde, C., Salkever, D., Fuddy, L., et al. (1999). Evaluation of Hawaii's healthy start program. *The Future of Children*, 9(1), 66–90.
- Duggan, A., Windham, A., McFarlane, E., Fuddy, L., Rohde, C., Buchbinder, S., et al. (2000). Hawaii's healthy start program for home visiting for at-risk families: Evaluation of family identification, family engagement, and service delivery. *Pediatrics*, 105(1), 250–259.
- Dunst, C. J., & Trivette, C. M. (1997). Early intervention with young at-risk children and their families. In R. Ammerman, & M. Hersen (Eds.), *Handbook of prevention and treatment with children and adolescents: Intervention in the real world* (pp. 157–180). New York, NY: Wiley.
- Dyson, B., & O'Sullivan, M. (1998). Innovation in two alternative elementary school programs: Why it works. *Research Quarterly for Exercise and Sport*, 69(3), 242–253.
- Earls, F., & Buka, S. (Eds.). (1997). *Project on human development in Chicago neighborhoods: A technical report*. Washington, DC: The National Institute of Justice.
- Earls, F., & Buka, S. (2000). Measurement of community characteristics. In S. Miesels, & J. Shonokoff (Eds.), *Handbook of early childhood intervention* (2nd ed., pp. 309–324). Cambridge: Cambridge University Press.
- Frailberg, S. (1980). *Clinical studies in infant mental health: The first year of life*. New York, NY: Basic Books.
- Gray, J. D., Cutler, C. A., Dean, J. G., & Kempe, C. H. (1979). Prediction and prevention of child abuse and neglect. *Journal of Social Issues*, 35, 127–139.
- Guralnick, M. J. (1997). Second generation research in the field of early intervention. In M. J. Guralnick (Ed.), *The effectiveness of early intervention* (pp. 3–22). Baltimore, MD: Paul H. Brookes Publishing Co.
- Guralnick, M. J. (1998). Effectiveness of early intervention for vulnerable children: A developmental perspective. *American Journal on Mental Retardation*, 102(4), 319–345.
- Guteng, S. L., & Chappell, B. (2000). Developmental practicum experiences of preservice teachers in deaf education: Implications for practicum placement and faculty-student collaborative research. *American Annals of the Deaf*, 145(5), 411–419.
- Guterman, N. B. (1999). Enrolment strategies in early home visitation to prevent physical child abuse and neglect and the "universal versus targeted" debate: A meta-analysis of population-based and screening-based programs. *Child Abuse and Neglect*, 23(9), 863–890.
- Hawaii Department of Health Maternal, and Child Health Branch. (1994a). *Healthy Start: Hawaii's system of support services, 1991–1993*. Honolulu, HI: Department of Community Health, University of Hawaii.
- Hawaii Department of Health Maternal, and Child Health Branch. (1994b). *Healthy Start Training Manual*. Honolulu, HI: Hawaii Family Stress Center.
- Hiatt, S. W., Sampson, D., & Baird, D. (1997). Paraprofessional home visitation: Conceptual and pragmatic considerations. *Journal of Community Psychology*, 25(1), 77–93.
- Indian and Northern Affairs Canada. (2002). *Words first: An evolving terminology relating to aboriginal peoples in Canada*. Ottawa, ON: Indian and Northern Affairs Canada.
- Kempe, H. (1976). *Child abuse and neglect: The family and the community*. Cambridge, MA: Ballinger Publishing.
- Kitzman, H. J., Olds, D., Cole, R., & Yoos, H. (1997). Challenges experienced by home visitors: A qualitative study of program implementation. *Journal of Community Psychology*, 25(1), 95–109.
- Kruger, R. A., & Casey, M. A. (2000). *Focus groups: A practical guide for applied research* (3rd ed.). Thousand Oaks, CA: Sage.
- Kulig, J. C., Nahachewsky, D., Thomlinson, E., Macleod, M., & Curran, F. (2004). Maximizing the involvement of rural nurses in policy. *Canadian Journal of Nursing Leadership*, 17(1), 88–96.
- Le-Mare, L., & Sohbat, E. (2002). Canadian students' perceptions of teacher characteristics that support or inhibit help seeking. *Elementary School Journal*, 102(3), 239–253.
- Miles, B. M., & Huberman, M. A. (1994). *Qualitative data analysis* (2nd ed.). Beverly Hills, CA: Sage.
- Molnar, B. E., Buka, S. L., Brennan, R. T., Holton, J. K., & Earls, F. (2003). A multilevel study of neighborhoods and parent-to-child physical aggression: Results from the project on human development in Chicago neighborhoods. *Child Maltreatment*, 8(2), 84–97.
- Mykota, D., & Muhajarine, N. (2005). Community resilience impact on child and youth health outcomes: A neighbourhood case study. *Canadian Journal of School Psychology*, 20(1/2), 5–20.
- National Center on Child Abuse Prevention Research. (1996). *Intensive home visitation: A randomized trial, follow-up and risk assessment study of Hawaii's Healthy Start program*. Washington, DC: US Department of Health and Human Services.
- Offord, D. R., Kremer, H. C., Kazdin, A. E., Jensen, P. S., Harington, R., & Gardener, J. S. (1999). Lowering the burden of suffering: Monitoring the benefits of clinical, targeted, and universal approaches. In D. P. Keating, & C. Hertzman (Eds.), *Developmental health and the wealth of nations: Social, biological, and educational dynamics* (pp. 293–310). New York, NY: Guilford Press.
- Patton, M. Q. (1990). *Qualitative evaluation and research methods* (2nd ed.). Beverly Hills, CA: Sage.
- Patton, M. Q. (1997). *Utilization-focused evaluation: The new century text*. Thousand Oaks, CA: Sage.
- Pong, R. W. (2002). *The health transition fund synthesis series: Rural health/telehealth*. Ottawa, ON: Health Canada.
- Pope, C., Ziebland, S., & Mays, N. (2000). Qualitative research in health care: Analysing qualitative data. *British Medical Journal*, 320, 114–116.
- Powell, D. S., Batsche, C. B., Ferro, J., Fox, L., & Dunlap, G. (1997). A strength-based approach in support of multi-risk families: Principles and issues. *Topics in Early Childhood Special Education*, 17(1), 1–26.
- Shepardson, D. P. (1996). Social interactions and the mediation of science learning in two small groups of first-graders. *Journal of Research in Science Teaching*, 33(2), 159–178.
- Socular, R. R., Fredrickson, D. D., Block, R., Moore, J. K., Tropex-Sims, S., & Whitworth, J. M. (2001). State programs for medical diagnosis of child abuse and neglect: Case studies of five established or fledgling programs. *Child Abuse and Neglect*, 25(4), 441–455.
- Statistics Canada (2007). *2006 Census Dictionary*. Ottawa, ON: Statistics Canada.
- Tashakkori, A., & Teddlie, C. (1998). *Mixed methodology: Combining qualitative and quantitative approaches*. Thousand Oaks, CA: Sage.
- Thomas, D. R. (2006). A general inductive approach for analyzing qualitative evaluation data. *American Journal of Evaluation*, 27(2), 237–246.
- Trivette, C. M., Dunst, C. J., & Deal, A. G. (1997). Resorce-based approach to early intervention. In S. K. Thurman, J. R. Cornwell, & S. R. Gottwald (Eds.), *Contexts of early interventions: Systems and settings* (pp. 73–92). Baltimore, MD: Paul H. Brookes.
- Wallach, V. A., & Lister, L. (1995). Stages in the delivery of home-based services to parents at risk of child abuse: A Healthy Start experience. *Scholarly Inquiry for Nursing Practice: An International Journal*, 9(2), 159–173.
- Wengraf, T. (2001). *Qualitative research interviewing: Biographic, narrative, and semi-structured methods*. Thousand Oaks, CA: Sage.

**David Mykota** is the Head of the Department of Educational Psychology and Special Education at the University of Saskatchewan. His research interests include early intervention, program evaluation, and resilient children and youth.