Adaptation and Implementation of the Nurse-Family Partnership in Canada

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ABSTRACT

Objectives: International agencies are required to adapt, pilot and then evaluate the effectiveness of the Nurse-Family Partnership (NFP) prior to broad implementation of this public health intervention. The objectives of this qualitative case study were to: 1) determine whether the NFP can be implemented in Canada with fidelity to the US model, and 2) identify the adaptations required to increase the acceptability of the intervention for service providers and families.

Participants: 108 low-income, first-time mothers in Hamilton, Ontario, received the NFP intervention. In-depth interviews were conducted with NFP clients (n=38), family members (n=14) and community professionals (n=24).

Setting: Hamilton, Ontario.

Intervention and Data Collection: An intensive nurse home visitation program delivered to women starting early in pregnancy and continuing until the child was two years old. Processes to adapt and implement the NFP were explored across seven focus groups with public health nurses and managers. Eighty documents were reviewed to identify implementation challenges. Data were analyzed using directed content analysis.

Outcomes: The NFP model elements are acceptable to Canadian health care providers, public health nurses and families receiving the intervention. The primary adaptation required was to reduce nurse caseloads from 25 to 20 active clients. Recommendations for adapting and implementing all model elements are described.

Conclusion: The NFP model requires minor adaptations to increase the acceptability of the intervention to Canadian stakeholders. A consistent approach to adapting the NFP program in Canada is necessary as provincial jurisdictions commit themselves to supporting an experimental evaluation of the effectiveness of the NFP.

Key words: Home visits; public health nurses; qualitative research; intervention research

La traduction du résumé se trouve à la fin de l'article.

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The association of young maternal age and adverse maternal and infant health outcomes is a significant public health concern. Pregnancy at a younger age is associated with increased risk of poor maternal mental health,^{1,2} poor educational outcomes^{3,4} and economic difficulties.⁵ Many risk factors associated with poverty and adolescent pregnancy, such as poor antenatal care, substance abuse, lower educational attainment and residence with a single parent, co-occur,⁶ thereby creating a pervasive environment of extreme risk for children of young mothers.

Infants born into poverty are more likely to be premature or have low birth weights and are at an increased risk of mortality in the perinatal period through to adolescence.⁷ They are also at increased risk of lower cognitive development and educational and social outcomes, increased risk of developmental delay^{8,9} and poorer physical and mental health.^{8,10} Young maternal age is also associated with increased risk of child maltreatment^{11,12} and later effects such as substance abuse and risky behaviours. The infants also have a higher likelihood of growing up to become teenage parents themselves, thus perpetuating the cycle of risk.^{10,13}

INTERVENTION

The Nurse-Family Partnership (NFP) is an evidence-based preventive intervention with demonstrated effectiveness in improving

maternal and child health outcomes in targeted populations of young, low-income, first-time mothers and their families. Over three decades, the NFP has been tested in three large US-based randomized controlled trials (RCTs).^{14,15} NFP goals include improvement in: 1) pregnancy outcomes, by promoting healthy prenatal behaviours; 2) child health and development, by promoting parents' competent care of their children; and 3) parents' life-course development. Nurses visit clients at home starting early in the preg-

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nancy and continuing until the child's second birthday. Through the establishment of a therapeutic relationship, nurses provide support and life coaching, review preventive health and prenatal practices, guide clients with system navigation, and engage in health education and discussions of child development and parenting.¹⁵ Visit guidelines, in-home activities and nurse instructions for each activity have been developed for each of the 64 home visits. The intervention is distinguished from other home visitation programs by its firm foundations in epidemiology¹⁵ and theories of self-efficacy,¹⁶ attachment¹⁷ and human ecology.¹⁸

In the US, NFP has demonstrated consistent and enduring effects, including improved prenatal health, fewer subsequent pregnancies, increased intervals between births, increased maternal employment and improved school readiness.^{14,15} The NFP improves the quality and safety of home environments, and there is a reduction in hospitalizations and in rates of state-verified reports of child abuse and neglect in nurse-visited children compared with control children.^{14,15} Additionally, the NFP provides governments with a significant return on investment and has a higher benefit-to-cost ratio than other prevention programs targeted to families with infants and young children.^{19,20} It has been estimated that for every dollar invested in implementing the NFP with the highest risk families, the US government receives a \$5.70 return on investment.²¹ The benefits of this cost-effective program for mothers and children are long-lasting, with improved outcomes now demonstrated up to 19 years post-intervention in nurse-visited families compared with controls.^{22,23}

The NFP can be conceptualized as a population health intervention, since the program seeks to influence a broad range of health, social and economic outcomes among disadvantaged families. Furthermore, only first-time mothers are enrolled in the program on the premise that their engagement will produce knowledge and behaviour changes that will positively influence their parenting capacity with subsequent children. Finally, there is strong evidence that the program has an impact on families' lives across generations.

While the NFP has been evaluated and implemented in the US, its effectiveness in Canada is still unknown. There are many existing home visitation programs in Canada; however, none have been evaluated with the rigour of the NFP US trials. No Canadian home-visiting programs include the components of the NFP.

In response to international interest in the NFP, the Prevention Research Center for Family and Child Health (PRC) at the University of Colorado, Denver, has developed a four-phase model for implementing the program in countries outside the US. Based on the Institute of Medicine's stages of intervention development and formative evaluation,²⁴ the model includes several stages: 1) identifying program adaptations for the local context; 2) conducting feasibility and acceptability pilot studies; 3) testing the program in an RCT; and 4) implementing the adapted program. International sites are under contract to implement the NFP intervention with strict fidelity to the US model. In 2008, the PRC approved a McMaster University-Hamilton Public Health Services (HPHS) collaboration to identify essential program adaptations for the Canadian context and to conduct the first NFP acceptability and feasibility pilot study in this country.

This article presents qualitative data from a larger concurrent parallel mixed methods study conducted to evaluate the feasibility

of implementing the NFP in Canada and the acceptability of the NFP to socially disadvantaged, first-time mothers and their families, public health nurses (PHNs) and managers, and community professionals. Acceptability studies are often conducted as part of formative program evaluations and typically use qualitative methods to explore stakeholders' opinions, values and beliefs about program activities, structure and content.²⁵ This type of study also facilitates the exploration of individual, organizational and contextual factors that influence intervention delivery and uptake.²⁵ The research questions specifically addressed in this article are as follows:

- 1) Can the NFP intervention be implemented in Canada with fidelity to the model successfully evaluated in the US?
- 2) What adaptations are required to increase the acceptability of the intervention to health service providers and to meet the needs of Canadian families?

The findings from this study will be highly relevant to provincial jurisdictions that plan to participate in an RCT to evaluate the NFP, as well as to other countries with health systems similar to that of Canada that are in the process of adapting the intervention. The conduct of a descriptive qualitative case study²⁶ guided the evaluation of the NFP's acceptability to stakeholders and the responsiveness of the public health agency to adapt the intervention to facilitate implementation.²⁷ Case study involves the description and exploration of a contemporary phenomenon within its real-life context.²⁶ It is particularly useful when the phenomenon of interest involves complex social interactions, when investigators have minimal control over variables and when boundaries between the phenomenon under study and the context in which it occurs are not clearly delineated.²⁶

The Hamilton Health Sciences/McMaster University Faculty of Health Sciences Research Ethics Board approved this study.

PARTICIPANTS AND SETTING

For the pilot study, the NFP intervention was delivered through the Family Health Division, HPHS, Hamilton, Ontario. Recruitment into the pilot study occurred between June 2008 and September 2009. A total of 424 prenatal referrals to HPHS were assessed for NFP eligibility criteria: ≤ 21 years of age, low income, referred before the end of the 28th week of pregnancy and first-time birth. Referrals were received from physicians and from nurse practitioners and community-based agencies providing prenatal services to socially disadvantaged women. Of these referrals, 135 pregnant women were eligible (32% of all prenatal referrals), and 108 (80% of those who were eligible) consented to participate in the pilot study. All women who consented to participate were eligible to receive the full dose of the intervention: a maximum of 64 home visits conducted over the course of 27-30 months. Case study participants included purposeful* samples of: women enrolled in the NFP pilot study ($n=38$); partners or mothers of NFP clients ($n=14$); community professionals responsible for program referrals or for providing auxiliary services to NFP clients ($n=24$); PHNs and managers with experience of home visiting as part of the provincial Healthy Babies, Healthy Children (HBHC) program ($n=12$); and the PHNs responsible for delivering the NFP intervention ($n=6$). The informed consent of each participant was obtained.

* Individuals identified as being able to richly describe the experience of collaborating with or receiving services from the NFP.

Table 1. NFP Client Characteristics to Establish Eligibility

Maternal Characteristic	N	%
Gestation at time of referral (n=135)		
Trimester 1 (0-13 weeks)	39	29%
Trimester 2 (14-25 weeks)	79	59%
Trimester 3 (26-29 weeks)	17	12%
Gestation at time of enrolment (n=108)		
Trimester 1 (0-13 weeks)	33	30%
Trimester 2 (14-25 weeks)	61	57%
Trimester 3 (26-29 weeks)	14	13%
Maternal age at time of enrolment (n=108)		
<15 years	3	3%
16-17 years	38	35%
18-19 years	45	42%
20-21 years	22	20%

DATA COLLECTION

Individual, in-depth, semi-structured interviews were conducted with NFP clients, their family members and community professionals. Unique interview guides were developed for each subsample to explore issues relevant to the experiences of that group in referring to, collaborating with or receiving services from the NFP. Interviews were conducted in a private location and lasted approximately 30-60 minutes. Permission to record each interview was obtained. Processes of adapting and implementing the NFP into existing public health services were explored through a series of focus groups: four with NFP PHNs, two with HBHC PHNs and one with HBHC managers. NFP PHNs were also asked to specifically reflect on the acceptability of each of the 18 NFP model elements. Each participant interviewed received a \$25.00 gift card as an honorarium; a catered meal was provided to focus group participants. Documents were collected to identify issues and strategies for resolving challenges that arose during the implementation of the NFP intervention. The minutes of 65 NFP team meetings (from June 2008 to June 2010) and 15 NFP research team meetings (from January 2008 to April 2010) were collected. Demographic data were gathered from all participants. Program implementation data were reviewed to explore referral patterns. Field notes were completed after each interview and focus group meeting. An audit trail documenting all methodological decisions was maintained.

DATA ANALYSIS

Interview and focus group data were transcribed verbatim and then imported into NVivo 8.0 software, which was used to store, manage and code these data. Using the NFP model elements a structured codebook was developed to facilitate line-by-line coding of the interviews, focus group transcripts and the meeting minutes. Data coded to each element were then synthesized and summarized using directed content analysis;²⁸ comparisons across data sources were also conducted at this stage.

OUTCOMES

Community-based health care providers in Hamilton identified and referred to HPHS the pregnant women who met NFP eligibility criteria (Table 1). Of the 108 women who consented to receive the NFP, all were first-time mothers and found to be of low-income status. The majority (87%) were enrolled in the program before or at 25 weeks' gestation. The cut-off age for the pilot study was ≤ 21 years, and most of the participating women were between 16 and 19 years (77%).

In this pilot study, the intervention was implemented with fidelity to 16 of the 18 NFP model elements. Table 2 provides an overview of the clinical practices that PHNs and other community

stakeholders implemented to increase the acceptability and responsiveness of the model in meeting the needs of clients and their families, nurses and other community professionals. Participant recommendations for future NFP implementations in Canada are also summarized in Table 2.

Participants' perceptions of key factors influencing implementation of the NFP model will be summarized under four headings: client-related elements, intervention context, expectations of the nurse home visitors, and application of the intervention.

Client-related elements

To support professionals in making appropriate referrals, the NFP PHNs explained that they developed promotional materials outlining program eligibility, goals and anticipated outcomes. PHNs invested significant time during the early stages of implementation in distributing NFP information packages, presenting information to targeted potential sources of referrals and engaging one on one with physicians, nurses and nurse practitioners.

The results confirmed that while it was possible for community providers to identify and refer pregnant women who met the NFP eligibility criteria, they often experienced difficulties in interpreting those criteria, particularly the definitions of "first-time mother" and "low-income status". Confusion arose in determining "first-time" maternal history in the context of miscarriages, therapeutic abortions and early postpartum placement of a previous infant. Use of low-income cut-off tables did not accurately identify all eligible low-income women because a client's eligibility might change with the birth of an infant or be related to changes in living arrangements. One PHN explained, *"The reality is that a lot of our clients start off as not low-income because they live with mom or dad, end up moving out on their own and then definitely into what would be a low-income situation."* It was suggested that PHNs determine low-income status using multiple criteria.

Community professionals expressed frustration about the program eligibility criteria not extending to women >21 years, those already parenting a child, or women beyond 28 weeks' gestation. NFP PHNs stressed the importance of having clients referred before the beginning of the 27th week of gestation for two reasons: 1) it often took multiple days to locate and conduct a consent visit with a potential client, and 2) initiating the program early in pregnancy allows for the development of the therapeutic nurse-client relationship required to promote behaviour changes. NFP PHNs confirmed that enrolling women who are early in the second trimester of pregnancy is an ideal time for engaging them in home visiting and the range of content offered in the NFP curriculum; first trimester referrals can be challenging if the client experiences a miscarriage or if the client does not yet perceive the pregnancy as real.

Intervention context

The primary elements of the NFP intervention were acceptable to all study participants, particularly the elements that the intervention should be led by a nurse, that the prenatal and postpartum services were delivered in the home, and that clients were visited regularly and frequently. The PHNs invested significant time in contacting and locating clients to ensure that home visits were completed. As one PHN explained:

We are working with very high-risk moms that are hard to engage. Look at how many clients we have to chase, the ones we are trying to

Table 2. Recommended Canadian Adaptations to the NFP Model Elements²⁹

Description of NFP Model Elements	<ul style="list-style-type: none"> ✓ Clinical Practices Implemented During the Pilot Study ➤ Recommendations for Future NFP Implementations in Canada
Clients Element 1: Client participates voluntarily in the NFP program.	<ul style="list-style-type: none"> ✓ Emphasize voluntary nature of NFP program during information sessions to health care providers or agencies referring clients. ✓ PHN to conduct short “consent” home visit before enrolment to provide an overview of the program goals, home visiting schedule and length and content, and to discuss nurse and client responsibilities in the program.
Element 2: Client is a first-time mother.	<ul style="list-style-type: none"> ➤ Recommend developing a definition of, and clear criteria to identify, “first-time mothers” on the program referral form.
Element 3: Client meets low-income criteria at intake.	<ul style="list-style-type: none"> ✓ Use multiple criteria, combined with critical nursing judgement and the assessment of the referring professional, to determine low-income status. Clients receiving social assistance are automatically deemed eligible to participate. ✓ Recommend development of a definition of “low income” and refine criteria to include such social risk factors as young age, enrolled in school, incomplete high school, absence of regular income, socially isolated with no financial support from partner or extended family, unemployed partner, indication of financial stress within the household, or expressed plans to move into independent living situation.
Element 4: Client is enrolled in the program early in her pregnancy and receives her first home visit no later than the end of the 28 th week of pregnancy.	<ul style="list-style-type: none"> ✓ Referring professionals or agencies to submit client referral form to public health by the beginning of the client’s 27th week of gestation.
Intervention context Element 5: Client is visited one-to-one; one nurse home visitor to one first-time mother or family.	<ul style="list-style-type: none"> ✓ Client participation in a group activity is not counted as a home visit. ✓ Encourage partner to actively participate in visits; provide homework for both client and partner to complete between visits. ✓ If the father assumes the primary parenting role in the absence of a mother and has developed a relationship with the PHN through active participation in the program, he may complete the program with his child. ✓ A single nurse is assigned to work with a family; this is essential for maintaining the therapeutic relationship and encouraging client retention. ✓ To address nurse turnover, vacations or leaves of absence, it is important for NFP clients to have opportunities to meet and engage with other nurses through group activities, occasional joint home visits or use of promotional items (e.g., annual calendar) with pictures of each PHN included.
Element 6: Client is visited in her home.	<ul style="list-style-type: none"> ✓ A client’s home is defined by the location in which she and her child currently reside, which may include a private residence, maternity home, or shelter. ✓ A client and the PHN may determine that it is safer to meet and conduct the visit in a public location (library, recreation centre, park, primary health care clinic, health school) provided that privacy issues are addressed. This should be a short-term solution only.
Element 7: Client is visited throughout her pregnancy and the first two years of her child’s life in accordance with the NFP schedule of visits.	<ul style="list-style-type: none"> ✓ PHN to adhere to program guidelines but remain responsive to client needs and availability. May decide to increase or decrease visits during client’s crises. ✓ Public health agency to recognize and allot PHNs sufficient time to locate clients, many of whom are mobile and difficult to contact on a regular basis. ➤ Recommend maintaining a client in the program until she formally requests to be discharged. Some clients may benefit from taking a short-term “holiday” from the program. Use of mailed cards on special occasions, as well as visits outside of core office hours, have improved retention. ➤ Recommend partnering with community agencies to provide participation incentives to clients to commemorate milestones such as baby’s birth and first birthday, or maternal graduation from program. ➤ Recommend engaging with local school board(s) to offer high school parenting credit for time spent in NFP program.
Expectations of the nurses and supervisors Element 8: Nurse home visitors and nurse supervisors are registered professional nurses with a minimum of a baccalaureate degree in nursing.	<ul style="list-style-type: none"> ✓ Nurse supervisor with a baccalaureate degree in nursing and a Masters degree required. ➤ Recommend that PHNs hired to work in the NFP have experience home visiting or working with socially disadvantaged families and possess skills in mental health or maternal-child health nursing. ➤ Recommend creating a provincial senior nurse position to assist, coach, and mentor supervisors in the NFP model of home visiting and to ensure that the intervention is implemented well.
Element 9: Nurse home visitors and nurse supervisors complete core educational sessions required by the NFP National Service Office and deliver the intervention with fidelity to the NFP model.	<ul style="list-style-type: none"> ✓ Initial and ongoing educational sessions to include diverse teaching and learning strategies, including on-site workshops, self-study modules and interactive group activities. ✓ During program implementation, agencies to build in time for PHNs to complete initial training, review and organize program materials, create local promotional materials and establish relationships with potential referral sources prior to enrolling initial clients. ➤ Recommend developing a core group of Canadian trainers with expertise in the theoretical foundations of the NFP, NFP curriculum and guidelines, motivational interviewing, reflective practice and therapeutic relationships. ➤ Develop training internally or secure resources to hire trainers in the delivery of a range of parenting education programs and assessment scales.
Application of the intervention Element 10: Nurse home visitors, using professional knowledge, judgement and skill, apply the NFP visit guidelines, individualizing them to the strengths and challenges of each family and apportioning time across defined program domains.	<ul style="list-style-type: none"> ➤ Recommend adapting NFP US guidelines (2009 edition) to reflect Canadian standards and include additional information on breastfeeding, injury prevention and safety, and infant nutrition. ➤ Recommend developing a password protected website where PHNs can access all curriculum elements online. ➤ Recommend augmenting national Canadian NFP guidelines with local community resources. ➤ Recommend developing a clinical database that provides PHNs with feedback on percentage of each home visit that is dedicated to each of the six program domains. ➤ Recommend that, in addition to domain-focused content, PHNs build time into each visit to address a priority issue or crisis identified by the client.

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Table 2. Continued**Description of NFP Model Elements**

Element 11: Nurse home visitors apply the theoretical framework that underpins the program, emphasizing self-efficacy, human ecology and attachment theories, through current clinical methods.

Element 12: A full-time nurse home visitor carries a caseload of no more than 25 active clients.

Reflection and clinical supervision

Element 13: A full-time nurse supervisor provides supervision to no more than eight individual nurse home visitors.

Element 14: Nurse supervisors provide nurse home visitors clinical supervision with reflection, demonstrate integration of the theories and facilitate professional development essential to the nurse home visitor role through specific supervisory activities, including one-to-one clinical supervision, case conferences, team meetings and field supervision.

Program monitoring and use of data

Element 15: Nurse home visitors and nurse supervisors collect data as specified by the NFP National Service Office and use NFP reports to guide their practice, assess and guide program implementation, inform clinical supervision, enhance program quality and demonstrate program fidelity.

Element 16: An NFP-implementing agency is located in and operated by an organization known in the community to be a successful provider of prevention services to low-income families.

Element 17: An NFP-implementing agency convenes a long-term community advisory board that meets at least quarterly to promote a community support system to the program and to promote program quality and sustainability.

Element 18: Adequate support and structure shall be in place to support nurse home visitors and nurse supervisors to implement the program and to ensure that data are accurately entered into the database in a timely manner.

✓ **Clinical Practices Implemented During the Pilot Study**➤ **Recommendations for Future NFP Implementations in Canada**

- ✓ Reflect on theories during clinical supervision, case conferences and team meetings to support PHNs in understanding underlying rationale for interventions with families.
- ✓ A full-time nurse home visitor to carry a caseload of no more than 20 active clients in the Canadian model.
- ✓ Space out referrals by weekly monitoring of PHN caseloads and paying attention to: the number of clients actively being visited and current timing of visits (e.g., weekly, bi-weekly, monthly); due dates of new referrals and current clients; and number of clients enrolled but demonstrating pattern of sporadic or missed visits.
- Recommend minimizing PHN travel time by assigning clients on the basis of geographical location.
- Recommend that delivery of the NFP program should be the sole workload assignment given to a PHN.
- ✓ Supervisor to have knowledge of home visiting, working with socially disadvantaged families, mental health, maternal-child health and early child development.
- ✓ Supervisor to have experience in program and community development, and performance management.
- Recommend that the nurse supervisor have expertise in reflective practice, motivational interviewing and knowledge of addressing compassion fatigue.
- ✓ Schedule bi-weekly case conferences alternating with team meetings to focus on case review and practice successes and challenges. Typically, one PHN to present a client case and summarize core challenges and current clinical interventions, and then discuss with the team to identify alternative strategies.
- ✓ Provide shared office space, when available, to facilitate PHNs providing each other with ad hoc opportunities to reflect on home visiting experiences.
- Recommend introducing an NFP supervisor into the organizational chart who reports to a public health manager. This provides supervisor with time to focus on the fidelity of the NFP, pick up a small caseload as required, and engage in reflective practice and supervision with the public health manager.
- Recommend scheduling bi-weekly two-hour team meetings on a consistent day to review NFP-specific operational issues, program implementation strategies, curriculum materials and activities, vacation/leave coverage, health and safety issues, and research updates. PHNs recommend that agency-specific information be shared through alternate formats.
- Recommend integrating NFP data requirements into established provincial databases to minimize duplication and time required for data entry.
- Recommend developing electronic, mobile systems for documentation and data entry.
- ✓ Implement NFP within existing public health agencies that employ PHNs experienced in home visiting socially disadvantaged families.
- ✓ Develop working partnerships with area primary care providers, hospital social workers, maternity centres and child welfare agencies.
- ✓ Develop terms of reference for the community advisory board.
- ✓ Membership to include, but not be limited to, representation from child welfare, primary health, maternity homes, school board(s), community advocacy groups and youth shelters. A consumer representative, as well as public health representation from the NFP supervisor and nursing director, should also be included.
- ✓ Review or develop policies for safe home visiting.
- ✓ Ensure that PHNs have resources available to develop, access and create curriculum materials, including printers, filing systems and photocopiers. PHNs also require cell phones to assist in locating clients through texting and phone messages, and to respond quickly to client-initiated schedule changes.

get on board, and we need the most time to work to engage these young people. Once we have them convinced that we are trustworthy, they love the program.

Many clients expressed disappointment when prenatal visits were reduced from weekly to bi-weekly as per the intervention guidelines. PHNs adhere to the schedule of visits as much as possible but appreciate the flexibility of being able to alter the number or timing of visits to meet client needs and availability. During late infancy and early toddler stages, some PHNs observed that there were clients who “disappeared” or refused home visits but did not want to be discharged from the program. Nurses continued to provide outreach to these clients and identified strategies to further tailor the program curriculum to meet their needs.

Expectations of the nurse home visitors

There was consensus across study participants that PHNs have the knowledge and experience to work with socially disadvantaged mothers and their infants, particularly about issues such as health promotion, breastfeeding, mental health, intimate partner violence, child maltreatment, safety, parenting and infant care. The use of PHNs versus paraprofessionals was identified as providing increased credibility, and nurses rather than social workers were perceived to be less threatening to clients. As one social worker from a local Children's Aid Society explained:

People often get their anxieties heightened when they know it's a social worker. I can sell a program easier if I say it is voluntary and that it is a nurse who visits. It's not somebody coming to “check up on you”. Which is how people feel if it's a Children's Aid worker or parent support worker coming.

Application of the intervention

PHNs, clients and family members confirmed that NFP home visit content was acceptable and met their needs. PHNs explained that the content is primarily determined by client needs or her “heart’s desire”; some content is prioritized and introduced by the nurse to address particular maternal or child health concerns. The NFP PHNs indicated that the principles of the theories underpinning the NFP intervention “have become ingrained in us” and that the application of these theories in practice has been a transformative experience.

It was not possible for PHNs to maintain a caseload of 25 active clients. One stakeholder explained that, compared with US colleagues, the study PHNs work fewer hours per week and have more vacation days. Extensive time was required to locate clients, travel across a large geographical area serving both rural and urban clients, complete training, prepare for and participate in case conferences, prepare curriculum materials, attend meetings and document clinical activities. During the first year of implementation, PHNs were able to manage 12 to 15 clients; over time, as caseloads increased towards 20 clients, they found this challenging. Furthermore, while the team achieved success in terms of regular team meetings, case conferences and weekly supervision, an optimal number of field supervisions were not completed.

DISCUSSION

This study presents the results of the first pilot study of the NFP in Canada and confirms that the NFP intervention can be implemented here with fidelity to 16 of the 18 model elements. This is a key step in intervention research, as many evidence-based prevention programs are implemented with poor fidelity or quality.³⁰ The most significant change to the model was that in Canada a full-time nurse home visitor is only able to carry a caseload of no more than 20 active clients, compared with 25 active clients as recommended in the US model. For the pilot study, the resources were not available to build and maintain the database required to evaluate the acceptability of Element 15. This study also identified important clinical practices and recommendations for intervention implementation that will be essential for other Canadian public health agencies that are participating in the NFP trial to consider.

Health care and social service providers expressed frustration about the limited eligibility criteria of the NFP. Within Canada’s context of providing universal health services, if the NFP is shown to be effective and is disseminated more widely, agencies will need to develop clear messages about the targeted nature of the program. PHNs will have a responsibility to explain the theoretical and empirical rationales underlying this program. The success of the pilot study appeared largely due to the time invested by the public health agency and PHNs in developing relationships with clients and their families, referral sources, professionals providing auxiliary services, and members of the Advisory Committee (Element 17). NFP nurses in the US also identify that relationships are at the heart of the NFP program and a core aspect of their work.³¹ The development of these relationships, as well as PHN activity to locate and engage hard-to-reach clients, is time intensive and must be taken into consideration when agencies are assigning workload.

The most significant Canadian adaptation to the model was the caseload reduction of active clients carried by each nurse, from the US standard of 25 clients to the revised number of 20 clients. This

finding is consistent with the experience in England, where implementation of the NFP model involved caseloads ranging from 14 to 21 clients.³² Given the reduction in families served by each PHN, it will be important for researchers to evaluate the cost-benefit ratio of this intervention in Canada.

Study strengths included data type and source triangulation, member checking* with PHNs, and peer debriefing to enhance overall data credibility. Data dependability and auditability were promoted through maintenance of an audit trail and code-recoding procedures. However, the findings may be limited in transferability to medium to large public health agencies serving urban or a mix of rural and urban populations. Further pilot testing and adaptations to the NFP model are necessary before implementation in unique communities, such as those in remote geographical locations or Aboriginal communities.

CONCLUSION

With minor adaptations, the NFP intervention elements are acceptable to Canadian service providers and families eligible to participate in the program. A consistent approach to adapting the NFP program in Canada is necessary as provincial jurisdictions commit themselves to supporting an RCT to evaluate the effectiveness of this important public health intervention. There are many models of home visiting – which may vary by type of provider, length of program or frequency of home visits – yet the NFP model of home visitation is consistently identified as having the strongest evidence of improved maternal-child health and prevention of child abuse and neglect. Therefore, it is imperative that implementing agencies do not dilute any of the program model elements.

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* Study participant is asked to confirm or refute whether researcher’s interpretation of participant’s experience is an accurate description.

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RÉSUMÉ

Objectifs : Avant d'appliquer le programme de santé publique Nurse-Family Partnership (NFP), les organismes internationaux sont tenus de l'adapter, de le mettre à l'essai, puis d'en évaluer l'efficacité. Notre étude de cas qualitative avait deux objectifs : 1) déterminer si le NFP peut être appliqué au Canada en restant fidèle au modèle des États-Unis, et 2) cerner les mesures d'adaptation nécessaires pour accroître l'acceptabilité de NFP auprès des dispensatrices de services et des familles.

Participantes : 108 nouvelles mères à faible revenu vivant à Hamilton, en Ontario, ont bénéficié du programme NFP. Des entretiens en profondeur ont été menés avec des clientes du NFP (n=38), des membres de leurs familles (n=14) et des professionnels locaux (n=24).

Lieu : Hamilton (Ontario).

Intervention et collecte de données : Il s'agit d'un programme intensif de visites à domicile par des infirmières auprès de femmes enceintes dès le début de leur grossesse et jusqu'à ce que leur enfant atteigne l'âge de deux ans. Des processus d'adaptation et d'application du NFP ont été étudiés à la faveur de sept groupes de discussion avec des infirmières et des gestionnaires de santé publique. Nous avons examiné 80 documents pour repérer les difficultés d'application du programme. Les données ont été analysées au moyen d'analyses de contenu dirigées.

Résultats : Les éléments du modèle NFP sont acceptables pour les dispensatrices de soins de santé, les infirmières de santé publique et les familles ayant reçu l'intervention au Canada. La principale mesure d'adaptation nécessaire a été de réduire la charge de travail des infirmières de 25 à 20 clientes actives. Notre article formule des recommandations pour adapter et appliquer les éléments du modèle.

Conclusion : Le modèle NFP nécessite des adaptations mineures pour accroître son acceptabilité auprès des acteurs du milieu au Canada. Il faut procéder de façon systématique pour adapter le NFP au Canada à mesure que les autorités provinciales s'engageront à appuyer une évaluation expérimentale de l'efficacité du programme.

Mots clés : visite à domicile; infirmières et infirmiers de santé publique; recherche qualitative; études d'intervention