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## Nurse Perceptions of Family Home-Visiting Programs in Australia and England

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### **ABSTRACT**

Aims: Nurse home-visiting programs are employed to enhance the functioning of disadvantaged mothers and young children. Despite the key role played by nurses, there is little empirical evidence describing the views and experiences of nurses who deliver home-visiting programs. This study compared the views and experiences of nurses delivering home-visiting programs in England and South Australia.

Methods: Participants were 108 nurses delivering the South Australian Family Home Visiting program (2008 - 2011), and 44 nurses delivering the Family Nurse Partnership program in England (2007 - 2009). Data were collected using a standard questionnaire that was completed by nurses in each country. The questionnaire asked nurses about their level of influence on program outcomes, approaches they used to retain maternal engagement with the home-visiting programs, barriers to effective program delivery and the effectiveness of supervision.

Results: Both groups of nurses considered that their greatest influence was improving mothers' confidence with parenting skills and increasing mothers' knowledge about children's development. Each group identified quality of nurse-mother relationships as the factor most relevant to retaining maternal engagement. Other influential factors were flexibility of timing for visits and the capacity of the programs to meet specific needs of mothers.

Conclusion: There was consistency in the nurses' views about the home-visiting programs delivered in England and Australia. Future studies should utilise prospective designs to identify the mechanisms by which factors influence the quality of nursemother relationships, approaches used by nurses to solve family problems, and elements of mother-nurse relationships that have the strongest influence on program outcomes.

Keywords: home visits, maternal-child health, nurse perceptions, children, nurses

## What is already known about this topic

- Nurse home-visiting programs are employed to enhance the functioning of disadvantaged mothers and young children.
- Several qualitative studies have highlighted the importance of nurse-mother relationships for the successful implementation of home-visiting programs.
- Despite the key role played by nurses, there is little empirical evidence describing the views and experiences of nurses who deliver home-visiting programs.

## What this paper adds

- Nurses delivering home-visiting programs in England and South Australia had similar views about factors influencing program delivery.
- Nurses considered that their greatest influence was on improving mothers' confidence with parenting skills and increasing mothers' knowledge about children's development.
- The availability of advice from other nurses or supervisors is important to minimise maternal attrition from home-visiting programs and ensure optimal delivery.

Nurse home-visiting programs are one approach that can be used to enhance the social, emotional and cognitive development of young children. In home-visiting programs, trained nurses work in partnership with disadvantaged mothers of young children (e.g., young mothers, mothers with mental health problems) to improve the quality of maternal-infant relationships and maternal parenting. The expectation is that if changes are achieved in these areas, they will lead to subsequent improvements in children's development. During the last decade several comprehensive reviews describing outcomes from well designed home-visiting programs have concluded that they can produce important benefits for young children and mothers (e.g., improved parental attitudes and capacity, and better quality parent-child interactions). <sup>1-5</sup>

Despite the key role played by nurses delivering home-visiting programs, there is little empirical evidence describing the views and experiences of nurses who deliver them. <sup>6,7</sup> This is an important omission because several qualitative studies have highlighted the importance of nurse-mother relationships for the successful implementation of home-visiting programs. For example, an early study De La Cuesta <sup>9</sup> reported that home visitors in England (n=21) identified the quality of nurse-mother relationships as a key factor determining the extent to which nurses are able to have ongoing access to family homes and the willingness of parents to volunteer information and share private matters. The authors suggested that the importance of nurse-mother relationships has been insufficiently recognised because program evaluation typically focuses on more structural aspects of fidelity such as the extent to which program content is correctly delivered, the number of home visits, and the number of clients enrolled. Nurses (n=17) delivering a home-visiting program in Memphis reported that their overriding concern

was maintaining good relationships with families so that they could continue to support mothers and their young children. They drew attention to the importance of having good relationships not only with mothers but also with other family members such as grandmothers who lived in family homes.<sup>10</sup>

A limitation of studies conducted to date is that they have focused on small numbers of nurses working in a single service. This makes it difficult to know the extent to which findings apply more generally to nurses working in different services and across different countries. This is an important issue as nurses play a key role in the delivery of home-visiting programs in many countries. As such, a high turnover of nursing staff has the potential to damage nurse-mother relationships and reduce the effectiveness of home-visiting programs. In addition, the extensive training required by nurses for the delivery of effective home-visiting programs means that nurse attrition represents a significant financial loss for community services. <sup>11-13</sup>

The aim of the present study was to compare nurses' perceptions of home-visiting programs delivered in England and South Australia. The study builds on previous work by using a quantitative approach to assess nurses' perceptions of several aspects of home-visiting programs delivered in these two countries.

### **METHOD**

## **Participants**

Participants were nurses delivering the South Australian Family Home Visiting (SA-FHV) program between 2008 and 2011 and nurses delivering the Family Nurse Partnership (FNP) program in 10 pilot sites across England from 2007 to 2009 (see Appendix I for program details).

A total of 108 nurses participated in South Australia (Response Rate = 83%) and 44 nurses in England (Response Rate = 100%). Both groups had substantial relevant experience prior to their involvement with the home-visiting programs. For example, on average nurses in South Australia had been registered for 26.8 (SD = 9.1) years and had 4.2 (SD = 3.2) years experience delivering SA-FHV program. All the nurses in England were registered with the Nursing and Midwifery Council and 96% had a Registered General Nursing qualification. They had an average of 15.1 (SD = 8.1) years previous work of which the majority (8 to 9 years) had been spent working with families, mothers and young children. <sup>14</sup> The majority (79%) had undertaken home-visiting during previous work and 33% had worked as midwives. <sup>14</sup>

## **Data Collection**

Data were collected using questionnaires that were completed by nurses. In South Australia, data were collected in 2011 and in England data were collected in 2009. All the data were collected in confidence by the research team in each country.

The survey questions asked in each country were very similar. This made it possible to compare responses across the two groups of nurses. The questions identified nurses' views about: (i) their level of influence on key program outcomes, (ii) approaches that encouraged mothers to remain engaged with the program, (iii) approaches that reduced attrition among enrolled mothers, (iv) barriers to effective program delivery and (v) perceptions of supervision. Each section was comprised of 9 to 12 items and utilised a 10 point response scale. The endpoints of response scales in each section had appropriate labels such as "often" versus "never" and "important" versus "not relevant".

For the purpose of obtaining nurse perceptions about the home-visiting program in South Australia, minor changes were made to the wording of some questions so that they more accurately reflected the terminology used by nurses in South Australia. For example, the term "group supervision" was changed to "case review" and "Motivational Interviewing" was changed to "Family Partnership Exploring Skills". The former two terms are synonymous. However, family partnership exploring skills describes a broader approach to interviewing than motivational interviewing. <sup>16,17</sup>

### **Ethical Considerations**

In South Australia, ethics approval for the study was provided by the Women's and Children's Health Network Human Research Ethics Committee at the Women's and Children's Hospital. In England, ethics approval was given by the National Health Service (NHS) National Research Ethics Service, North West Research Ethics Committee.

### **Data Analysis**

The statistical significance of differences in the mean scores on the questionnaires across the two groups of nurses was tested using t-tests. <sup>18</sup> In the presentation of results, the term "significant" refers to a significance level of p<.05.

### RESULTS

The level of influence that nurses perceived themselves as having on program outcomes is shown in Table 1. In South Australia, nurses considered that their greatest influence was improving mothers' confidence with parenting skills and increasing mothers' knowledge about children's development and local community services. In contrast, they reported having less influence on cigarette smoking and spacing of pregnancies.

The latter were also the areas where nurses in England perceived that they had the least influence (Table 1). There were some differences in the level of influence nurses in each country perceived themselves as having on program outcomes. For example, the mean score in the SA-FHV group rating nurses' influence on parenting confidence was significantly higher than that in the FNP group (Table 1). In contrast, mean scores in the FNP group were significantly higher for items rating nurses' perceptions of their influence on school readiness, childhood accidents, spacing pregnancies and cigarette smoking.

In each program, the quality of nurse-mother relationships was identified as the factor most relevant to retaining maternal engagement (Table 2). Other important factors were level of enjoyment mothers experienced during visits, the flexibility of timing for visits,

and the ability of the program to meet the specific and immediate needs of mothers. In both programs, the presence of partners at the time of visits and support from other professionals (e.g., social workers) were ranked as having the lowest relevance. The ranking of items across the groups was very similar and the size of the differences between mean scores was generally small. However, although referral to other services was utilised in each country, the mean score rating the importance of referral to other services was significantly higher in the SA-FHV group than in the FNP group. In contrast, the mean score rating the importance of having a partner present at visits was higher in the FNP group.

In both programs, the strategy most frequently used to reduce maternal attrition was seeking advice from other members of nursing teams or from supervisors (Table 3). Focusing more time on issues of immediate concern to mothers and suggesting additional agencies to provide help were also strategies commonly employed by nurses in both countries. Although used infrequently in both countries, negotiating a break from the program for a few weeks was more commonly utilised in England than in South Australia. A joint visit with a supervisor was the strategy used least frequently in both countries. The mean scores rating the frequency with which nurses would spend more time on the immediate concerns of mothers and the score assessing the extent to which nurses would suggest alternative agencies to provide help, were both significantly higher in the SA-FHV group than in the FNP group.

Appointments cancelled by clients were the most frequently identified barrier to successful nurse home-visiting in South Australia (Table 4). In England, the most

frequent barrier was the amount of time available for home-visits. This difference might have been due to the greater frequency of visits in FNP (50 vs. 34 in the two years) or the need for the English nurses to fulfil other NHS-related but non-FNP administrative, in-service, and training requirements. In both countries, the time required for administrative work was identified as a common barrier. Furthermore in both countries the quality of team functioning was the area that was least often identified as a barrier to home-visiting (Table 4).

Nurse ratings of the effectiveness of supervision are shown in Table 5. In the SA-FHV group, with the exception of the item asking about supervision of organisational issues, the mean scores occupied a relatively narrow range that rated supervision as being effective. The majority of mean scores in the FNP group were somewhat lower than those reported for comparable items in the SA-FHV group but most differences were small. The differences may be related to the fact that supervisors in the FNP pilot phase began the training for the program alongside the nurses.

#### DISCUSSION

Although there were a number of differences between the two programs, nurses in each country had very similar views about their influence on program outcomes and factors that influenced maternal engagement. Consistent with results from previous studies, both groups of nurses suggested that the quality of nurse-mother relationships, flexibility in timing of home visits, and the ability to address immediate concerns of mothers were key factors that influenced mothers' engagement. They also reported that

their highest level of influence was on maternal knowledge about infant development and parenting skills. In contrast, they considered that they had less influence on spacing of subsequent pregnancies and the use of cigarettes.

The initiation, maintenance and successful conclusion of nurse-mother relationships are complex processes. In contrast to the delivery of health services in acute or ambulatory care settings, nurses deliver interventions in clients' homes. Furthermore, mothers have generally not sought help but have been identified by others as potential beneficiaries of home-visiting programs. Lack et al. In noted that these factors can result in mothers feeling vulnerable and powerless when they allow service providers into their homes. To date however, there is little information about how these factors influence the quality and effectiveness of nurse-mother relationships. Indeed, as noted by Zeanah et al., although the quality of therapeutic alliances has the potential to significantly influence the outcomes of community-based interventions, outside mental health settings there is little information about how they are formed and maintained, and the mechanisms by which they influence outcomes. For example, in the area of nurse home-visiting, although most programs are initiated during the antenatal period, there is little information about the impact on nurse-mother relationships of initiating home-visiting during the ante-natal versus the post-natal period.

A major challenge for nurses delivering home-visiting programs is balancing the need to deliver prescribed program content in a timely fashion that is consistent with the schedule of modules, and respond to the immediate and different circumstances of mothers who are recipients of home-visiting programs. The latter requires appropriate

training in approaches that can be utilised to address more immediate problems and a clear understanding about the type of maternal and family problems that are within the scope of nursing practice. For example, previous studies have drawn attention to the frequency with which nurses have to address maternal mental health problems. 7,20 However, without appropriate training, community nurses may have difficulty dealing with mental health issues. Furthermore, many families who participate in homevisiting programs live in deprived circumstances with few resources available to improve the home environments of mothers and young children. As such, it seems plausible that home-visiting programs may be more successful if they work in partnership with other services that have the capacity to effectively address the housing and welfare needs of mothers living in deprived circumstances.

Nurses in the present study and particularly those in England who needed to fulfil NHS requirements reported that administrative work not related to the practical task of delivering of home-visits was an important barrier that impeded their work. 

Information about the content and frequency of home visits is important for ongoing quality management of home-visiting programs. However, it is important that collection of this information does not impede effective service delivery. During the last decade, new methods have become available that facilitate routine collection of information about the fidelity of community programs without impeding service delivery by clinicians. For example, the widespread use of personal digital assistants (PDAs) means that electronic diaries can serve the dual purpose of storing appointment times for individual nurses and providing electronic data that can be utilised for quality management programs. Similarly, digital scanning makes it possible to collect

information from mothers using simple questionnaires that can be readily converted into an electronic form for the purpose of statistical analysis. Use of these approaches can facilitate the efficient collection, storage and retrieval of key program data without imposing an excessive burden on nurses responsible for delivering home-visiting programs. Their use also provides increased opportunities to ensure that data collected by nurses is perceived by them as relevant to program outcomes for their clients.

Limitations of this study include its cross-sectional design and the limited number of items in the survey questionnaire. Furthermore, information was based solely on reports from nurses delivering the home-visiting programs. It cannot be assumed that nurse perceptions about factors that influenced maternal and child outcomes or maternal attrition, are necessarily the same as those that would be identified by mothers. In England, nurses in the present study were the first cohort to be trained in the program and they may have been reluctant to be critical of the program.

In conclusion, despite differences in the two home-visiting programs, there was marked consistency in the views of nurses in South Australia and England about their level of influence on program outcomes and factors that influenced maternal engagement with each program. Future studies should utilise prospective designs to identify more clearly the mechanisms by which key factors influence the quality of nurse-mother relationships, the approaches used by nurses to solve maternal and infant problems, and the elements of mother-nurse relationships that have the strongest influence on program outcomes.<sup>21</sup> In addition, they should utilise information obtained from both mothers and nurses when assessing the quality of mother-nurse relationships.

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### APPENDIX I

The South Australian Family Home Visiting (SA-FHV) program enrols mothers in the initial weeks after their children are born. The theoretical base of the program is the Family Partnership Model. <sup>16,23</sup> Content is broadly similar to that of the post-natal components of the Family Nurse Partnership and the Nurse-Family Partnership programs in the UK and USA. <sup>3,14,15</sup> It is comprised of 34 visits by nurses, usually in family homes, during the first two years of children's lives. The content of visits is grouped into six modules with the content of each module designed to be appropriate for the developmental stage of children at the time the module is delivered. Staff who deliver the program are registered nurses with additional qualifications in community child health nursing. They receive extensive training in the delivery of the program and in areas relevant to child protection/notification. They also receive ongoing supervision and support from a multidisciplinary team which includes psychologists and social workers.

The Family Nurse Partnership (FNP) home-visiting program in England is equivalent to the Nurse Family Partnership program developed in the USA.<sup>22</sup> It differs from the home visiting program in South Australia because it enrols mothers in the first trimester of pregnancy with 14 home visits planned in pregnancy and 50 during young children's first two years. Furthermore, the FNP program generally enrols first-time mothers who are aged < 20 years while the SA-FHV program enrols mothers with previous children

and mothers aged > 19 years. The FNP program is delivered in family homes and covers six content areas, which are addressed using materials suitable for the child's developmental phase. Modules cover maternal health, parenting, relationships with friends and family, safety in the environment, maternal life course development, and any necessary referrals to other services. Visit summaries developed in the USA to assess the fidelity of program delivery are completed by nurses after each home visit. Staff delivering the program are all qualified nurses who are provided with extensive additional training before they commence delivering the FNP program. Nurses work in teams of 4 or more with a supervisor. They also receive support from locally-based clinical psychologists.

Table 1

Mean score (SD) rating level of influence on improving outcomes for mothers

(1 = No Influence; 10 = Large Influence)

Outcomes	SA-FHV	FNP	$p^{\dagger}$
	<i>N</i> = 108	<i>N</i> = 44	
Increased knowledge about infant development	8.3 (1.5)	8.3 (1.2)	.99
Increased confidence in parenting skills <sup>‡</sup>	8.3 (1.3)	7.1 (1.3)	<.001
Increased awareness of community services§	8.3 (1.4)		
Improved infant development	8.0 (1.3)	8.3 (1.2)	.18
Infant readiness for pre-school and school	7.0 (1.9)	8.1 (1.3)	.001
Fewer infant injuries	6.8 (1.8)	7.9 (1.2)	<.001
Increased breastfeeding	6.4 (2.2)	6.8 (1.5)	.39
Wider spacing of subsequent pregnancies	5.2 (2.1)	6.5 (1.6)	.001
Reduced use of cigarettes	4.6 (2.2)	5.6 (1.8)	.01

<sup>&</sup>lt;sup>†</sup> Significance level of t-test testing for the statistical significance of difference between the two groups

<sup>&</sup>lt;sup>‡</sup> FNP questionnaire described this as "self-sufficiency"

<sup>§</sup> Not included in the FNP questionnaire

Table 2

Mean score (SD) rating factors that may help mothers stay with the nurse homevisiting program (1 = Not Relevant; 10 = Very Relevant)

Factors	SA-FHV	FNP	$p^{\dagger}$
	<i>N</i> = 108	<i>N</i> = 44	
A good relationship with the nurse	9.5 (0.9)	9.8 (0.6)	.04
Enjoyment of the visits	9.0 (1.0)	8.9 (1.1)	.65
Flexibility in timing for visits	8.9 (1.3)	8.8 (1.3)	.49
Using materials to meet specific client needs	8.4 (1.5)	8.4 (1.4)	.75
Achieving some change	8.2 (1.4)	7.7 (1.9)	.07
Referral to other services	7.4 (2.0)	6.3 (2.3)	.01
Recognition of wider benefits of the program	7.3 (1.9)	6.7 (2.0)	.11
Support from family members	7.2 (2.3)	7.6 (2.0)	.32
Support from other professionals	6.0 (2.7)	6.3 (2.4)	.49
Presence of partner at the visits	4.7 (2.2)	5.9 (2.1)	.003

 $<sup>^{\</sup>dagger}$  Significance level of t-test testing for the statistical significance of difference between the two groups

Table 3

Mean score (SD) rating strategies to prevent mothers leaving the nurse home-visiting program (1 = Never use this Strategy; 10 = Often use this Strategy)

Strategies	SA-FHV	FNP	$p^{\dagger}$
	N = 108	<i>N</i> = 44	
Seek advice from team or supervisors	9.2 (1.2)	8.6 (1.4)	.01
More time on client's immediate concerns	8.7 (1.5)	7.5 (1.8)	<.001
Suggest other agencies for additional help	8.0 (1.6)	6.2 (2.5)	<.001
Review client's goals and refocus on these	7.9 (1.8)	6.6 (2.8)	.001
Explore client's ambivalence‡	7.5 (1.9)	7.6 (2.2)	.85
Try harder to build relationship with client	7.5 (2.1)	7.0 (2.6)	.20
Ask if client would prefer another nurse	5.3 (3.0)	3.6 (3.0)	.003
Negotiate a break for a few weeks	4.5 (2.9)	6.6 (2.7)	<.001
Joint visits with supervisor	2.8 (2.6)	4.5 (3.4)	.001

<sup>&</sup>lt;sup>†</sup> Significance level of t-test testing for the statistical significance of difference between the two groups

<sup>&</sup>lt;sup>‡</sup> the questionnaire in England identified "Motivational Interviewing" as a method of doing this while the questionnaire in South Australia referred to "Family Partnership Exploring Skills".

Table 4

Mean score (SD) rating barriers that may prevent nurses from delivering nurse homevisiting (1 = Never a Barrier; 10 = Often a Barrier)

Barriers	SA-FHV	FNP	$p^{\dagger}$
	<i>N</i> = 108	<i>N</i> = 44	
Visits cancelled by clients	6.8 (2.5)	5.2 (2.1)	<.001
Demands of non-FHV administrative work	6.0 (2.7)	6.2 (3.0)	.74
Demands of FHV administrative work	5.8 (2.6)	6.3 (2.4)	.30
Amount of time available for visits required	5.5 (2.8)	7.4 (2.6)	<.001
Availability of resources (e.g. module packs)	4.9 (2.8)	4.4 (2.8)	.32
Office space	4.8 (3.4)	4.1 (3.0)	.20
Requirements to participate in other activities	4.7 (2.6)	4.1 (2.5)	.22
Administrative support (e.g. I.T., photocopying)	4.6 (2.9)	4.6 (2.9)	.99
Meetings with other professionals	4.2 (2.4)	4.8 (1.9)	.16
Team functioning	3.5 (2.8)	2.9 (2.0)	.19
Isolation from other team members	3.4 (2.6)	3.3 (3.1)	.75

<sup>&</sup>lt;sup>†</sup> Significance level of t-test testing for the statistical significance of difference between the two groups

Table 5  $\label{eq:meanscore} \mbox{Mean score (SD) rating effectiveness of supervision (1 = Not at all Effective; 10 = Very Effective)}$ 

Area of Supervision	SA-FHV	FNP	$p^{\dagger}$
	<i>N</i> = 108	<i>N</i> = 44	
Agreeing on approaches with specific clients	8.1 (1.5)	7.7 (1.9)	.17
Understanding of clinical cases	8.0 (1.7)	7.0 (2.5)	.01
Developing reflective skills	7.9 (1.9)	7.1 (2.3)	.03
Developing self awareness	7.8 (2.0)	6.8 ( 2.5)	.01
Space to reflect on and clarify issues/events	7.8 (2.1)	8.1 (2.2)	.37
Learning & understanding	7.6 (2.1)	6.6 (2.5)	.01
Providing personal support	7.5 (2.2)	7.8 (2.5)	.50
Opportunity to develop specific skills <sup>‡</sup>	7.5 (2.2)	6.0 (2.8)	.001
Shared accountability for safeguarding issues	7.4 (2.2)	6.9 (2.8)	.23
Incorporating FHV theoretical model into work	7.3 (2.1)	6.5 (2.7)	.04
Addressing organisational issues	6.1 (2.7)	6.5 (2.3)	.46

<sup>&</sup>lt;sup>†</sup> Significance level of t-test testing for the statistical significance of difference between the two groups

<sup>&</sup>lt;sup>‡</sup> FNP questionnaire identified "e.g., Motivational Interviewing"; SA-FHV questionnaire identified "e.g., Family Partnership Exploring Skills