Providing the family-nurse partnership programme through interpreters in England

Journal Article

http://eprints.bbk.ac.uk/3319

Version: Accepted (Refereed)

Citation:

Barnes, J.; Ball, M.; Niven, L. (2011)
Providing the family-nurse partnership programme through interpreters in England
Health and Social Care In The Community 19(4), pp.382-391

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Publisher Version
Providing the Family-Nurse Partnership programme through interpreters in England

Barnes, J., Ball, M & Niven, L.

*Health & Social Care in the Community, 2011, 19(4), 382-391.*

**Abstract**

This study looks at the delivery in England with interpreters of the Family-Nurse Partnership (FNP) home-visiting programme for vulnerable, young first-time mothers, known in the USA as the Nurse Family Partnership. FNP is manualised with a number of fidelity objectives. This study covers the first two phases, pregnancy and infancy (up to 12 months). The programme relies on the development of a close nurse-client relationship. Interpreters can be a barrier for therapeutic work with vulnerable groups. The aims are to determine from quantitative and qualitative data whether the FNP programme can be delivered with fidelity in the presence of an interpreter and to explore issues concerned with the impact of interpreters on relationships. Statistical comparisons were made of delivery objectives over two years, April 2007 and February 2009, in the 10 sites in England, spread across all nine Government Office Regions providing FNP. 43 clients had an interpreter at some point and 1261 did not. Qualitative interviews were conducted between April and May 2009 with 30 stakeholders (nurses, clients, interpreters). In relation to quantitative indicators the percentage of planned content covered in visits was lower with interpreters (pregnancy: 90% vs. 94%; infancy 88% vs. 93%) and both understanding and involvement of clients, as judged by nurses on 5-point scales were lower (understanding, pregnancy 4.3 vs. 4.6, infancy 3.8 vs. 4.5: involvement, pregnancy 4.4 vs. 4.7, infancy 3.7 vs. 4.5). The interpreter was thought by nurses not to impede the development of a collaborative client-nurse relationship unless the
interpreter and client became too close but some nurses and clients reported that they would rather manage without an interpreter. Some stress was noted for nurses delivering the programme with an interpreter. More research is needed to determine the extent to which interpreters accurately convey the programme’s strength-based approach.

**Key words:** Home visiting, prevention, interpreters, parenting, therapeutic relationship, nurses
**Introduction**

The Nurse-Family Partnership programme (NFP, Olds 2006), a manualised nurse home-visiting service, is known in England as the Family-Nurse Partnership programme (FNP, Barnes *et al.* 2008). Designed to support young, vulnerable, first-time mothers, it draws on attachment (Bowlby 1969), self efficacy (Bandura 1977) and ecological (Bronfenbrenner 1979) theories and delivery is with a strength-based, motivational interviewing style (Rollnick & Miller 1995). The detailed curriculum has three phases, pregnancy, infancy (0-12 months) and toddlerhood (13-24 months). The concept of ‘fidelity’ is of paramount importance in the delivery of FNP with quantitative programme delivery objectives developed in the USA for each phase (see Barnes *et al.* 2008, 2009). Its aims are to improve pregnancy outcomes, child health and development and the economic self-sufficiency of the family by helping parents develop a vision for their future (NFP 2010).

The effectiveness of the programme had been demonstrated in the USA with three randomised trials (Olds 2006). In one it was provided by bilingual nurses in Spanish to mothers with Latino backgrounds (Olds *et al.* 2002) but interpreters are not generally used in the USA (Olds personal communication). Since 2007 it has been tested in England, first in 10 pilot sites and at the time of writing in 50 sites around the country (House of Commons 2010) with interpreters involved where necessary. Sites have 4-6 nurses, each with a maximum of 25 clients. With the substantial and growing minority ethnic population in the United Kingdom (Foreign and Commonwealth Office 2010) programmes such as FNP, offered within the National Health Service (NHS), need to consider their applicability for non-English speaking mothers. It has been found that language barriers present a major obstacle to minority ethnic communities accessing healthcare (Gerrish *et al.* 2004). This mixed method study,
one element of the ongoing national implementation evaluation of FNP (Barnes et al. 2008, 2009), compares quantitative aspects of FNP delivery with and without interpreters and examines emerging issues through qualitative interviews with nurses, clients, interpreters and their managers.

Therapeutic work with an interpreter may be particularly adversely affected by omission of information, simplification, adding content, replacing concepts with those thought to be more understandable and interjecting opinions (Vasquez & Javier 1991, Miller et al. 2005, Pugh & Vetere 2009). It has also been suggested that development of empathetic therapeutic communication may be adversely affected by the interpreter’s presence (Pugh & Vetere 2009). District nurses in England reported that interpreters could detract from them developing relationships with their patients and reduce information exchange about emotional concerns (Gerrish 2001). Research has shown that that nurses working with vulnerable refugees, concerned about the impact on their relationship with clients, often prefer to manage without interpreters (Maltby 1998).

A Canadian review (Carnevale et al. 2009) concluded that nurses, compared to physicians, may find working with interpreters particularly problematic in that their relationship with patients is more sustained and personal. This is also likely to be true for the FNP nurses who ideally work with clients for the duration of the programme, covering many sensitive and personal topics. A fundamental aspect of successful delivery of FNP is said to be the development and maintenance of a close relationship between the nurse and client, with a sense of common goals or purpose and feelings of safety and trust (Olds et al. 1997). It has also been pointed out that nurses working with an interpreter need to maintain not one but three dyadic relationships; nurse-client, client-interpreter and nurse-interpreter (Rae 2004).
In relation to providing the manualised FNP with interpreters the study aims to investigate whether the expected levels of delivery are attained and whether the nature of the crucial client-nurse relationship is affected. The study addressed four questions.

1. Was there any difference in delivery based on quantitative objectives when interpreters were involved? 2. Was there any perceived impact of the interpreter on delivery of the programme’s content? 3. Was there any perceived impact of the interpreter on the nurse-client relationship? 4. What kinds of relationships developed between interpreters and both clients and nurses?

**Methods**

**Data collection**

*Programme delivery forms*

Standardised forms are completed by FNP nurses to collect demographic client information at intake and after each home visit recording delivery (duration, percent of planned content covered, percent of time spent on five content domains, the client’s understanding and involvement on five-point scales). All anonymised forms covering almost two years were available from 10 sites, from April 2007 to February 2009.

*Qualitative Interviews*

Semi-structured interviews were created for the study by the authors, based on the literature and on previous interviews with FNP nurses and clients about the programme’s implementation (Barnes *et al.* 2008, 2009). They were conducted in April and May 2009 in three sites where the majority of the work with interpreters was conducted. Nurses were asked about their previous experience with interpreters, perceptions of programme delivery though an interpreter, modifications to delivery and issues raised in supervision regarding interpreters. Client interviews covered recruitment, introduction of the interpreter and their involvement in subsequent visits;
and their relationships with the nurse and interpreter. All but one was conducted with interpreters (not interpreters involved in delivering FNP). Interpreters and their managers were asked about training and background, their understanding of the FNP and perceptions of how well the interpreting of FNP visits was working. All interviews were recorded and transcribed.

**Participants**

Thirty qualitative interviews were conducted with 17 FNP nurses (N), eight clients who had required an interpreter (C), two interpreters (I), and three managers of interpreting services (IM). Nurses interviewed had at least two clients requiring an interpreter out of a maximum caseload of 25 or had supervised nurses with at least two such clients and selection of clients was random. Interpreter managers were interviewed in the three sites with most clients and to add to the information in two sites one interpreter was also selected for interview based on availability. All nurses had received a one-day training for working with interpreters, based on British Psychological Society guidelines (Tribe & Thompson 2008). In one of the sites interpreters and their manager received a relatively detailed introduction to FNP but in other sites managers had the programme explained to them but individual interpreters generally received only a brief overview of the programme when contacted.

**Ethical considerations**

Ethical approval was obtained from an NHS Research Ethics Committee for the analysis of anonymised data forms and then separately for the qualitative interviews. All interview participants were given information sheets describing the study and gave their written informed consent at the time when interviews were conducted.

**Data analysis**
Analysis of programme delivery comparing interpreter and non-interpreter clients was conducted. Continuous variables were compared using independent samples Student’s t test, or Welch-Satterthwaite t-test where variances were unequal; categorical variables were compared using Pearson’s chi-square test, or the Fisher’s exact test when cell frequencies were low, with SPSS Release 16. Qualitative interview transcripts were initially analysed to identify themes by all three authors with validity ascertained through discussion and consensus, using thematic analysis (Foster & Parker, 1995). Then the interviews were re-visited by the first author for final coding. Formal reliability was not assessed.

**Results**

Programme delivery forms were available for 1304 clients, 43 non-English speaking for whom an interpreter had been present for some or all home visits and 1261 English-speaking. Clients requiring interpreting were predominantly located within three sites with 21, 12 and five respectively, while one site had two, three sites had only one and three sites had none.

**Demographic characteristics**

The 43 clients using an interpreter required translation from 14 different languages: Bengali (13) or Sylheti (7); Polish or Urdu (3), Albanian, Kurdish, or Punjabi (2); and Chinese, Creole, Persian, Portuguese, Sign language, Somali or Spanish (1); with four with no information. Compared to other clients, those who required an interpreter were unlikely to be of school age but more likely to be non-teen; more likely to be married and more often living with their partner and other family but not with their own mother, to be of Asian background and to have never been employed (see Table 1).

Please insert Table 1 here
Attrition

According to nurse completed data forms a similar proportion of clients in each group left the programme during pregnancy (166/1261, 13.2% and 6/43, 14.0%; $\chi^2 0.23$, df 1, $p = 0.880$). However, while deemed active according to nurses, fewer than that number received any infancy visits (1001 and 35, see Table 2).

Impact on quantitative delivery objectives

Gestation at recruitment was similar for both groups, slightly later than the objective of 16 weeks (see Table 2). The objective is that 80% of the expected visits are delivered in pregnancy and 65% in infancy (birth to 12 months). The percentage was short of these objectives for both groups (see Table 2). Visits should last on average at least 60 minutes which was achieved for both groups with no significant difference during pregnancy or infancy (see Table 2). In both pregnancy and infancy the percent of the planned content covered was significantly lower for clients requiring an interpreter (see Table 2). Coverage of the domains was generally similar for both groups and mainly in line with the objectives except that in pregnancy more time was spent on maternal personal health for clients requiring interpreting compared to the remainder and less on environmental health. In infancy again less time was spent on environmental health for the interpreter group (see Table 2). Nurses’ ratings of clients’ involvement and understanding during visits were lower for those requiring an interpreter in both pregnancy and infancy (see Table 2).

Please insert Table 2 here

Perceived impact of interpreters on delivery of the programme

Contrary to the quantitative analysis showing no significant difference between groups for the average visit length (see Table 2), nurses reported that sessions with an interpreter seemed longer: “I speak to the client and she looks me in the eye, then
looks to the interpreter as she translates and I look at her to see her expression...

They are longer than other visits.” [N11] This suggests that time may hang heavily when the interpreter is involved: “It’s quite boring at times..... the interpreter goes through it and you just sit there.” [N3]

One nurse, who also supervised, considered that the process of interpreting diminished the essence of the programme: “I don’t think nurses feel that having a third person to interpret their words is a good way to deliver FNP; something is lost.” [N14] It was also thought that “Motivational interviewing does not work because you have to be more direct.” [N15] In addition to the essence or manner of the communication being changed there was also concern that the programme relied on written materials, which could not be used when clients or interpreters had literacy problems: “The written material is just impossible, not all interpreters can write the language they are speaking - and the girls definitely can’t.” [N16] However written materials were seen as useful in developing self-efficacy by some clients: “(The FN) helps me through the interpreter to complete the form. I write on it during the visit. She gives it to me intentionally to see if I can practice my English.” [C5]

Other aspects of the FNP curriculum rely on nurses modelling parenting activities such as mother-infant play using dolls or stuffed toys, which can be complex when a third person is involved, but it appears that the nurses and interpreters generally managed: “I was talking about the five stages of play and getting the interpreter to relay that. Then I demonstrated it with a teddy on the floor. When it came to the mum’s turn I had to stop her to say through the interpreter to let the child lead.” [N9]

This requires skills that interpreters may not use in other work; the role playing needs to be delivered in the same tone of voice as the nurse: “It has actually been quite easy because (the interpreter) is quite animated, she says it how I say it.” [N2]
An interpreter manager estimated that 90 to 95 percent of what has been said is likely to be accurately translated [IM2]. However, uncertainty about whether wrong messages were being conveyed was described by some nurses, who were unsure how they should tackle it: “I was listening with all ears. I knew that she (interpreter) was saying things that I wasn’t saying and I didn’t tackle it…I didn’t have the energy to be constantly diluting what the interpreter was saying.” [N10] Others indicated that they had addressed this directly with interpreters. For example, after providing some information about weaning the child with family foods, one nurse discovered that the interpreter was recommending the use of purchased baby foods: “I asked her immediately afterwards not to express her own opinion. She was accepting, but she might do it again and I would not know.” [N5]

The extent to which interpreters may add their own opinions was linked to other work as a health advocate. Interpreter managers were inclined to dismiss this as a concern, one saying “An advocate can act as an interpreter but an interpreter cannot act as an advocate” [IM1]. Nurses considered that being an advocate may, in addition to adding their opinions, lessen the likelihood of the motivational approach being used correctly: “We were quite adamant that we did not want to have advocates as we’re not an advice service, we are a motivating service” [N9]; “If somebody has been employed as a health advocate and thinks she knows everything, she would probably go off on her own tangent and start telling her (client) things. That would not be appropriate when you are doing motivational style work.” [N10]

In addition to having the content of the programme presented incorrectly or without the relevant strength-based focus, there was also evidence that important issues may not be addressed in the interpreter’s presence. For example a client whose visits were now without an interpreter since her English had improved reported that she had
previously held back: “Sometimes I wanted to ask about something personal and I used to feel shy to do it through an interpreter. She (the FN) wanted to know about the relationship between me and my husband. Now I feel free to speak.” [C5] One nurse indicated that she avoided some physical health issues with male interpreters: “There are things I shelved like breast examination because I don’t feel I can do that through a male interpreter.” [N3] although a (different) male interpreter considered that his gender was not relevant: “In our country there is no problem, when a lady is pregnant they talk about everything.” [I1] However for women of some cultural backgrounds (e.g. Bangladeshi) a male interpreter would not be acceptable: “We wouldn’t be let into the house if we turned up with a male interpreter.” [N12]

The perceived impact of interpreters on nurse-client relationships

In their interviews clients mentioned the importance of trusting their nurse, which allowed sharing of intimate information. This could come almost instantly: “The first day she came I liked her and felt I could trust her” [C3] or develop over time: “I trust her [now] because we started even before I gave birth.” [C7] It did not seem from clients’ perspectives that the presence of the interpreter impeded the trust developing, nor was it necessary for the same interpreter to be present for each visit: “Changes in the interpreter don’t make any difference to my relationship with (N); it’s just like the same thing.” [C4]

Nurses had differing views on what contributed to forging a good relationship when there is a language barrier. One suggested it is a mix of “the actual nature of FNP and the type of person the client is” [N11] while another focussed on the nurse’s ability to communicate through unspoken cues: “It’s about who you are and how quickly you connect with other people irrespective of language. Somebody can feel your warmth, genuineness and caring through your intonation and body language.” [N13] Rather
than expecting any problem with the interpreter present, some identified the positive role the interpreter could play: “My relationship with (client) is on a par with other clients... our relationship blossoms when the interpreter is there.” [N2]

Nevertheless some mentioned difficulty in initiating good relationships when using a third party: “I find it difficult to read between the lines when I’ve got an interpreter.” [N12] “Having the interpreter there was a barrier to my relationship with the client.” [N7] The time it takes to interpret between the client and FN can add a restrictive element to the dialogue and as a result one nurse commented: “They (clients) cannot be spontaneous, they cannot say everything they would like to.” [N4]

For one nurse it was only when the interpreter went on sick leave that she began to get an insight into the relationship between the young woman she was visiting and her partner who took on the interpreting role: “When she wasn’t there he would talk to his wife and tell me what she’d said, they would giggle together and I saw another side to them.” [N7] This nurse and client decided not to carry on with the interpreter as did other nurses, even if they thought their delivery was less accurate: “I’m probably not doing a lot of them (visits) as I should but I think they are good enough and she prefers not to have an interpreter.” [N17] Clients also mentioned they were relieved when they received FNP without an interpreter. “I used to think ’Oh, I have to explain to someone else, I wish I could speak to (N) instead of through an interpreter.” [C2]

“(Without an interpreter) I feel free with (N), I don’t feel hesitant.” [C3]

Lack of continuity of interpreters was also thought to impair the relationship: “Some of the clients take quite a long time to trust someone. I’d already gone in with (interpreter 1) and built a relationship, then she is gone and here is (interpreter 2). I didn’t want to feel that just any old person could come in.” [N10] The general perception from the nurses could be summarised by this nurse’s comment: “It will
always be jolly difficult to provide a long-term programme based on your relationship
with that person when you’re doing it through a third party.” [N3]

Relationships between interpreters and both clients and nurses

The clients tended to talk quite dispassionately about their interpreters, referring to
them in terms of the quality of their language phrasing, in contrast to their expressed
fondness for their nurses. Comments were made such as “She was good” [C6], “All
the interpreters have been good, I have understood them” [C5], “She speaks really
good [language] so she explains properly”[C8] and “I liked them, they were not bad.”
[C3] The relatively distant relationship is illustrated by this client talking about two
interpreters: “I didn’t prefer one to the other, they were not interesting, but they were
friendly, I felt comfortable with them.” [C1] One interpreter mirrored this view saying
that “I am there just as the middle person, I am not there ‘for’ the nurse, I am not
there ‘for’ the client...you must be neutral” [I1] an opinion confirmed by the other
interpreter interviewed who stated “The relationship is between the nurse and the
client.” [I2] Most of the clients had experienced more than one interpreter and this
was not said to be a problem. While they might prefer the same interpreter each time
their feelings were not strong: “They were Bengali like me, they were all good. I
would prefer if I had only one but it is not my matter to decide, if others come it
doesn’t make any difference to me.” [C4]

However one client who had experienced several interpreters indicated why she
preferred her current one “Emotionally she is sentimental, we have a good bond, she
has sympathy. She is 21, she understands me.” [C5]

Similarity between the client and the interpreter was thought by nurses to facilitate the
development of interpreters’ relationships with clients, something that helped the
whole process to be successful: “The three of us just get along really well. I think the
A Bengali interpreter also mentioned the benefits of her similarity to the clients; “The families they are like me, I got married at 17; I enjoyed it, the work is fascinating, it crosses over with my experience and my interests.”

Interest and appreciation of the programme approach itself was also useful: “She’s really enthusiastic about the programme….. when she hears my voice sounding sensitive then she’ll do the same.”

She went on to explain how she knew that this interpreter’s sensitivity helped the development of a trusting relationship with the client: “The other day we did the ‘Trust Petal’ where you write who you trust and two of the people were (interpreter) and me. I asked her why and she said ‘because (interpreter) helps me to communicate so my voice is heard.’”

Nevertheless, nurses were not always positive about close client-interpreter relationships. One thought the attitude of the interpreter who “had a grandchild the same age as the client’s baby” and “kept personalising the exchanges, bringing her own grandchild into it” was detrimental to her own relationship with the client. Another commented about an interpreter who was well known locally that: “She was lovely but things turned into a conversation with her and the client.”

When a close rapport builds between a client and interpreter the nurse could feel excluded: “Sometimes (interpreter) would be having a little aside conversation with (client) and I would ask, ‘so what is she saying?’ and (interpreter) would say ‘oh nothing’. It was quite difficult.”

Another felt so sidelined by the interpreter-client relationship that “I tried to get to the house early, to have some time alone with her.”

Nevertheless clients did not necessarily want the interpreters as friends, “She asked me a lot of questions, but I have my own friends” and one interpreter manager
noted that clients may not wish to be close to others from their home country “for fear of being judged” [IM3]

A number of factors were identified that contribute to a good working relationship between the nurse and interpreter. The first was practical, having time either before the session to prepare or afterwards to discuss the visit: “I always brief them before we visit, but there is never enough time” [N6]. One nurse described how the interpreter mirrored her own style of presenting information or initiating discussions by saying she “kind of mimics what I’m doing in order to get it across the right way.” [N2] Changing interpreters impeded the development of relationships “We have had so many interpreters it’s just ridiculous to get any relationship going at all.” [N12] It was helpful if the nurse and interpreter could work together over time and share information about each other’s point of view. One nurse described wanting to “find out if (interpreter) is enjoying it, what she thinks after each visit. We always leave together and talk about it afterwards – has she got ideas to offer, what we are going to move to next time and so on.” [N5]

Trust was also important, discussed also under question two in relation to fidelity of delivery. As one nurse noted “You have to be able to trust them to say exactly what you are saying. Sometimes their body language doesn’t seem to match what you have said or goes on a very long time.” [N14]

The nurse-interpreter relationship could be strengthened when the interpreter presented himself or herself as a professional, working in partnership with another professional, helping mutual trust to develop: “We have a rapport too now. It’s almost like I’m delivering the programme with her (interpreter)...I have a lot of trust in (interpreter), and (client) has a lot of trust too, which makes me reassured.”[N2]

Caution was indicated however in that the nurses were aware they were really
dependent on the interpreter; they were concerned about not being in control. Thus
the nurse-interpreter relationship was not one that could be thought of as equal
professionals but this was not always achieved “My mistake was to allow the
interpreter to have intellectual input... I should have imposed tighter boundaries.”

[N4] There are always going to be two individuals rather than one for the nurse to be
aware of “All the time you are trying to make sure that two people are OK, the girl
and the interpreter, you need them both to understand exactly, it is your
responsibility.”  [N16] Overall, balancing all three relationships could be stressful: “I
have to say I don’t dread going at all (to client who needs an interpreter) but when
I’ve finished I think “phew!” and I feel lighter because I’ve done it.”  [N3] “You gain
something from the help and input of the interpreters, but you lose the spontaneity of
the client - there is always this third person there.”  [N5]

Discussion

This study has some limitations. These nurses were the first in England to be trained
in the delivery of the programme. Working in multi-cultural areas they all had some
previous experience of interpreters but delivering the detailed FNP curriculum in
combination with the strength-based motivational approach was unlike previous
medical interactions. Being new to the materials they may have been particularly
anxious that the programme content was translated appropriately. Nurses with more
experience of the programme may find it less stressful to incorporate an interpreter
into their work. In addition the study is limited by the predominance of Bengali and
Sylheti speaking clients in these three sites so generalizability to clients with different
cultural backgrounds may be limited until there has been more experience of FNP
with a wider range of families. The study would also have been stronger if more
clients and more interpreters had been interviewed; the focus of this study has been
more on the nurses’ perceptions of the experience. It must be kept in mind that, while statistical differences were identified in delivery this does not mean that the interpreter’s presence caused them. A larger study could take confounding variables into account. Finally the statistical comparisons are based on groups of unequal size. This has been taken into account statistically but investigation in the future with a larger group of interpreter clients is important.

With those provisos in mind some useful information has emerged about whether the FNP programme can be delivered effectively with interpreters. Quantitative data indicated that the FNP can be delivered with equivalent fidelity with or without an interpreter. The relatively small differences were: not as much of the planned material covered in each visit; slightly more focus on maternal health and less on environmental health, and clients’ understanding was thought to be lower. Covering less is not surprising given the additional time it may take to go through materials twice, with the interpreter and then for the client. It is likely that the other differences in the focus of the content could be related to the more stable housing of most of the clients using interpreters, the majority of whom were older and married, and the nurses’ awareness that pregnancy and infant outcomes are on average poorer for women of ethnic minority background (Smith, Kelly & Nazroo 2008). The judged lower understanding may reflect the pervading issue (discussed in the next paragraph) that the nurse was not getting their whole message across.

However based on qualitative comments about the perceived impact of the interpreter, the conclusion of delivery with fidelity is tempered. Reflecting previous studies (e.g. Miller et al. 2005, Pugh & Vetere 2009) concerns were expressed by nurses that information was not conveyed as stated, or in a motivational style, or interpreters’ opinions were added. In the interviews nurses indicated that interpreters did not
always translate with a focus on clients strengths and motivation, but rather were
didactic. This suggests that interpreters may benefit from time learning about the
programme, not necessarily all the materials but the philosophy behind it, which
would be more likely if there was consistency over time keeping the same interpreter
for each relevant client.

The third question was whether nurses could form the close trusting relationships with
their clients, said to be important to programme delivery (Olds, 2006) and setting FNP
apart from other services for clients (Barnes et al. 2008). In contrast to some
previous research (Gerrish, 2001, Pugh & Vetere, 2009) these nurses and clients
confirmed that trusting and close relationships were being developed through an
interpreter. This may be related to the carefully structured materials, all of which
focus on the strengths and motivation of the client and the supportive role of the
nurse. However, many nurse and clients would rather than the interpreter was not
there.

Considering the final question about the relationship interpreters developed with the
nurse or the client, nurses could become concerned if they thought clients were close
to interpreters. This led to some nurses feeling sidelined and less in control which is
likely to have a negative impact on their relationship with the client. Nevertheless,
clients did not express strong desires to form relationships with interpreters. It was
their positive relationship with their nurse that they mentioned more often.

The interpreter could enhance nurse-client relationships as long as their own
relationship with both nurse and client was maintained as friendly but not too close,
with an understanding that they were not expert in the programme’s background or
content. It is also important that the nurse believes her message is conveyed
accurately and with the right emotional content. Comments made by nurses revealed
that they would like more time to spend with interpreters, not all of whom could be fully briefed about the FNP materials or strength-based approach. However in the real world, as the research team also found, interpreters are in short supply and often can only be arranged at the last minute so this may be unrealistic.

These nurses worked with their clients over an extended period of time, the kind of support that may be vulnerable to the impact of needing an interpreter (Carnevale et al. 2009). While the nurses considered that they had been able to develop and maintain the appropriate rapport with their clients, it was not always easy. The maintenance of professional, open and sharing relationships with the interpreters was sometimes difficult to achieve in parallel with establishing the necessary close nurse-client relationship and some nurses described the stress they felt during or after interpreter visits. They may benefit from specific supervision sessions that focus on presenting FNP through interpreters, enabling them to discuss any anxieties about the interpretation of programme content or stress related to maintaining multiple relationships over time.

In the future a more substantial quantitative investigation, with a broader range of ethnic backgrounds represented, may illuminate in more detail what any differences in delivery might mean in relation to enhancing delivery or predicting programme impact.
References


Table 1 Comparison of the intake demographic characteristics of clients who ever used an interpreter and the remaining clients

<table>
<thead>
<tr>
<th></th>
<th>No interpreter N=1261</th>
<th>Interpreter N=43</th>
<th>$\chi^2$</th>
<th>df</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Maternal age group</strong></td>
<td></td>
<td></td>
<td>47.12</td>
<td>2</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>16 or younger</td>
<td>372 (30)</td>
<td>1 (2)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17 to 19</td>
<td>782 (62)</td>
<td>26 (61)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20 to 24</td>
<td>107 (8)</td>
<td>16 (37)</td>
<td></td>
<td></td>
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<tr>
<td><strong>Marital status</strong></td>
<td></td>
<td></td>
<td>268.96</td>
<td>2</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Single</td>
<td>849 (75)</td>
<td>6 (15)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Cohabitating</td>
<td>223 (20)</td>
<td>3 (7)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>64 (6)</td>
<td>31 (78)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Lives with</strong></td>
<td></td>
<td></td>
<td>64.45</td>
<td>3</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Family, including own mother</td>
<td>590 (52)</td>
<td>1 (2)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family, not including mother</td>
<td>271 (24)</td>
<td>31 (78)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other adults, not family</td>
<td>174 (15)</td>
<td>7 (18)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alone</td>
<td>106 (9)</td>
<td>1 (2)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Ethnic Group</strong></td>
<td></td>
<td></td>
<td>274.69</td>
<td>3</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>White</td>
<td>931 (82)</td>
<td>4 (10)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>89 (8)</td>
<td>2 (5)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asian</td>
<td>52 (5)</td>
<td>28 (70)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mixed or Other</td>
<td>70 (5)</td>
<td>6 (15)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Ever employed</strong></td>
<td></td>
<td></td>
<td>24.48</td>
<td>1</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Yes</td>
<td>644 (57)</td>
<td>7 (17)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>485 (43)</td>
<td>33 (83)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>In education/training</strong></td>
<td></td>
<td></td>
<td>0.44</td>
<td>1</td>
<td>0.507</td>
</tr>
<tr>
<td>Yes</td>
<td>313 (28)</td>
<td>9 (23)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>808 (72)</td>
<td>30 (77)</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

Note 1: Totals for each characteristic apart from maternal age do not all add up to total number of clients since some demographic background forms collected by nurses were incomplete.

Note 2: Comparing ethnic group proportions with Pearson’s chi-square test 3 cells have an expected count less than 5 and the minimum is 2.57. Therefore Fishers’s exact test was also calculated, value 133.54, p<0.0001.
Table 2  Mean values of programme delivery indicators for clients who ever used an interpreter and the remaining clients

<table>
<thead>
<tr>
<th>Programme delivery indicator</th>
<th>FNP Objective</th>
<th>No interpreter N=1261</th>
<th>Interpreter N=43</th>
<th>t</th>
<th>df</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gestation at recruitment (weeks)</strong></td>
<td>16</td>
<td>17.9 (5.4)</td>
<td>18.8 (5.1)</td>
<td>1.09</td>
<td>1298</td>
<td>0.274</td>
</tr>
<tr>
<td><strong>Pregnancy</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of expected visits completed</td>
<td>80</td>
<td>65.6 (26.7)</td>
<td>67.3 (19.6)</td>
<td>0.565*</td>
<td>47.5</td>
<td>0.575</td>
</tr>
<tr>
<td><strong>Visit duration (minutes)</strong></td>
<td>60+</td>
<td>74.6 (14.4)</td>
<td>72.0 (15.2)</td>
<td>1.02</td>
<td>1297</td>
<td>0.309</td>
</tr>
<tr>
<td>% of planned content covered</td>
<td>-</td>
<td>94.2 (10.1)</td>
<td>89.6 (11.8)</td>
<td>2.56*</td>
<td>44.1</td>
<td>0.014</td>
</tr>
<tr>
<td>% time maternal role</td>
<td>23-25</td>
<td>24.3 (7.2) √</td>
<td>24.0 (6.4) √</td>
<td>0.21</td>
<td>1297</td>
<td>0.835</td>
</tr>
<tr>
<td>% time personal health</td>
<td>35-40</td>
<td>35.2 (10.0) √</td>
<td>38.8 (11.6) √</td>
<td>2.32</td>
<td>1297</td>
<td>0.020</td>
</tr>
<tr>
<td>% time life course</td>
<td>10-15</td>
<td>11.3 (4.3) √</td>
<td>11.2 (5.8) √</td>
<td>0.18</td>
<td>1297</td>
<td>0.854</td>
</tr>
<tr>
<td>% time family and friends</td>
<td>10-15</td>
<td>16.1 (5.3) √</td>
<td>15.1 (3.9) √</td>
<td>1.19</td>
<td>1297</td>
<td>0.235</td>
</tr>
<tr>
<td>% time environmental health</td>
<td>5-7</td>
<td>13.2 (5.0) ↑</td>
<td>11.2 (6.5) ↑</td>
<td>2.61</td>
<td>1297</td>
<td>0.009</td>
</tr>
<tr>
<td>Client involvement (1-5)</td>
<td>-</td>
<td>4.7 (0.5)</td>
<td>4.4 (0.8)</td>
<td>2.63*</td>
<td>43.1</td>
<td>0.012</td>
</tr>
<tr>
<td>Client understanding (1-5)</td>
<td>-</td>
<td>4.5 (0.7)</td>
<td>3.7 (0.9)</td>
<td>5.61*</td>
<td>43.6</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td><strong>Infancy</strong></td>
<td>N=1001</td>
<td>N=36</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of expected visits completed</td>
<td>65</td>
<td>53.9 (24.4)</td>
<td>56.8 (16.5)</td>
<td>1.01*</td>
<td>40.4</td>
<td>0.320</td>
</tr>
<tr>
<td>Visit duration (minutes)</td>
<td>60+</td>
<td>74.6 (13.5)</td>
<td>70.7 (13.1)</td>
<td>1.65</td>
<td>1034</td>
<td>0.099</td>
</tr>
<tr>
<td>% planned content covered</td>
<td>-</td>
<td>92.8 (9.2)</td>
<td>87.8 (9.7)</td>
<td>3.15</td>
<td>1034</td>
<td>0.002</td>
</tr>
<tr>
<td>% time maternal role</td>
<td>45-50</td>
<td>↓ 42.2 (8.6)</td>
<td>↓ 44.4 (7.8)</td>
<td>1.45</td>
<td>1034</td>
<td>0.147</td>
</tr>
<tr>
<td>----------------------</td>
<td>-------</td>
<td>-------------</td>
<td>-------------</td>
<td>------</td>
<td>------</td>
<td>------</td>
</tr>
<tr>
<td>% time personal health</td>
<td>14-20</td>
<td>↑ 22.2 (6.0)</td>
<td>↑ 24.2 (5.8)</td>
<td>1.87</td>
<td>1034</td>
<td>0.061</td>
</tr>
<tr>
<td>% time life course</td>
<td>10-15</td>
<td>↑ 10.7 (3.7)</td>
<td>✓ 10.9 (2.8)</td>
<td>0.23</td>
<td>1034</td>
<td>0.815</td>
</tr>
<tr>
<td>% time family and friends</td>
<td>10-15</td>
<td>✓ 13.7 (4.1)</td>
<td>✓ 12.4 (3.8)</td>
<td>1.69</td>
<td>1034</td>
<td>0.091</td>
</tr>
<tr>
<td>% time environmental health</td>
<td>7-10</td>
<td>↑ 11.6 (4.2)</td>
<td>✓ 10.1 (3.8)</td>
<td>2.08</td>
<td>1034</td>
<td>0.037</td>
</tr>
<tr>
<td>Client involvement (1-5)</td>
<td>-</td>
<td>4.6 (0.5)</td>
<td>4.3 (0.7)</td>
<td>3.05</td>
<td>35.4</td>
<td>0.004</td>
</tr>
<tr>
<td>Client understanding (1-5)</td>
<td>-</td>
<td>4.5 (0.6)</td>
<td>3.8 (0.8)</td>
<td>5.11</td>
<td>35.4</td>
<td>&lt;0.000</td>
</tr>
</tbody>
</table>

Note 1: Where no objective is given none has been specified by the USA National Office.

Note 2: * indicates that variances were unequal and the t value is based on the Welch-Satterthwaite t-test.

✓ Mean coverage of content domain within objective range

↑ Mean coverage of content domain higher than the objective range

↓ Mean coverage of content domain lower than the objective range