The evolution and feasibility of a salutogenic home visit program in multiethnic first-time families in Norway.

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Abstract

Background Explicit knowledge on how to develop a universal home visit program is warranted as most programs target high-risk, disadvantaged, pregnant young women. The New Families program, a salutogenic home visit program, was developed directed at all first-time families in a multiethnic district in Oslo in collaboration with the Public health nurses. The objective was to secure a healthy child development with long-term benefits. The current study describe the evolution of a project resulting in a sustainable and synergistic program of praxis to be implemented in the current Norwegian Child Health Service Clinic.

Methods A feasibility study with qualitative data triangulation provided a comprehensive understanding of the acceptability, demand, practicality, and integration of the New Families program in the district’s Child Health Service Clinic. This two yearlong study included three focus group interviews with public health nurses who conducted 1109 home visits to 222 first-time families in the district, in addition to retrospective interviews with six participating families. The collected data was analysed using the six phases of thematic analysis recursive process.

Results Developing a trusting relational continuity of care between the public health nurse and the family is at the core when facilitating support and help. The home visit was characterized as praxis oriented with a salutogenic focus, emphasizing the parents’ strengths and resources, while engaging with the family in a collaborative and respectful way. The families and the public health nurse reported a decreased authoritative relationship without losing the experience professionalism.

Conclusions An early home visit program for all new families delivered with proportionate universalism avoided stigmatizing vulnerable families and ensured high utilization of the health service. The participating families and public health nurses were in concert when endorsing the integration of the program in the Norwegian Child Health Service Clinic.

1. Introduction

The early childhood period is a critical window of opportunity to secure healthy child development with long-term benefits (Irwin, Siddiqi, & Hertzman, 2010; Marmot & Bell, 2012). Home visit programs are one strategy when supporting families. Reviews describe various programs exhibiting positive effects on early childhood development with favourable family outcomes (Black et al., 2017; Coles, Cheyne, & Daniel, 2015; Ramey & Ramey, 1998). To enable more children to reach their developmental potential and become healthy adults contributing to society, scale-up of effective interventions targeting families with young children are recommended (Richter et al., 2017). Yet, limited descriptions of the development of early intervention home visiting programs are available, as the literature primarily focuses on pilots of pre-existing programs or on the program outcomes (Ciliska et al., 2001; Drummond, Weir, & Kysela, 2002; McDonald, Moore, & Goldfeld, 2012). Most of these publications address programs targeting high-risk disadvantaged pregnant young women.

However, giving birth for the first time indicates a major change for any woman and her family, both psychologically and physically (Gjerdingen & Center, 2005; Parfitt & Ayers, 2014). Furthermore, the vast majority of the published programs are developed in countries without free, low threshold, prenatal or postnatal health care services (Ciliska et al., 2001; Drummond et al., 2002; McDonald et al., 2012). The literature highlights the challenges of transferability of published programs to countries with an existing universal antenatal and postnatal health care service. Few studies demonstrate added value or cost-effectiveness (Barnes et al., 2017; Corbacho et al., 2017). Recruitment has been identified as difficult if the programs are not implemented in the current general service (Barnes et al., 2017; Nilsen & Pedersen, 2018). In the 2016 *The Lancet* Early Childhood Development Series, they recommend building program interventions on existing sectoral services to enforce shared messages, synergy and increased reach to a larger number of families (Britto et al., 2017; Richter et al., 2017). To facilitate this, program development needs to be done in collaboration with the current service. By collaborating with the present service, local adaption and feasibility are ensured, and the early childhood program can be delivered through acknowledged channels (Britto et al., 2017; Richter et al., 2017).

In Norway, the Child Health Service Clinic (CHSC) is a free low threshold service used by nearly 100 % of the target population (Norwegian Directorate of Health, 2017). The CHSC provides antenatal health care (by midwives in collaboration with general practitioners (Family Medicine)), postnatal health care (by Public Health Nurses (PHN)), child health vaccinations and check-ups from 0 to 5 years old, School Health and Youth Health Clinics for children and youth until 24 years of age (Norwegian Directorate of Health, 2017). The PHNs in the CHSC focuses on health promotion and primary prevention, with an intention to foster an optimal trajectory for growth and development in children, while providing guidance to parents (Norwegian Directorate of Health, 2017). Thus, when Stovner District in Oslo, in collaboration with the University of Oslo, discussed an early salutogenic home visiting program, the ultimate intention was to integrate the final program in the existing CHSC (Leirbakk et al., 2018). Widening social disparity, advancing child poverty, and increased use of secondary services called for new and innovative actions (Oslo City, 2016). In addition, during the last decade the postpartum hospital stay in Norway had decreased from 3-4 days to 8-49 hours (Verpe et al., 2019). The PHNs at the CHSC in Stovner experienced an increase in insecure and anxious parents and reported one of four consultations as an extra consultation (not linked to the national child health program) with distressed parents (personal communication Head of Stovner CHSC, G. Bendiksen).

The program was developed in collaboration with the service and the users (families) to harness existing services and practices. This ensured local ownership and accountability. The foundation of the program was to offer and conduct home visits to all first-time families from 28th gestational week until the child reached two years. The same PHN would follow the family with regular consultations at the CHSC, ensuring a relational continuity of care. Anchored in salutogenic theory, the program aimed to build a supportive relationship with the family, foster a healthy parent-child relationship, harness child development and social adaptation, and emphasize preventive instead of remedial health services (Leirbakk, Magnus, Torper, & Zeanah, 2019). By incorporating salutogenic theory, the aim was accentuating the family’s resources and strengths.
Aim

After the initial phase of defining the principles and key elements of the program (Leirbakk et al., 2018), a feasibility study was warranted. To ensure strong integration in the current CHSC, three PHNs from the Stovner CHSC were partially bought out of their regular positions to develop the new program. The PHNs were to develop and shape the early home visit program, coined the New Families program. The PHNs were asked to tailor and intensify the grade of support to all the first-time families while differentiating needs, referred to as proportionate universalism (Marmot & Bell, 2012). The present study on the evolution and feasibility of the New Families program had a duration of two years. The focus of the observations and data collections during this period centred on four areas of interest: the acceptability, demand, practicality, and future integration of the New Families program in the CHSC, by the family and in the community. By allowing this phase to be conducted for two years, these first-time families would become familiar with the PHN, the New Families program, and concomitantly the current national program at the CHSC. In addition, the PHNs would be given the opportunity to gradually adapt to and integrate the novel way of working into their regular CHSC praxis. The collective experiences derived from the participating families and the PHNs would help establish a sustainable and synergistic program of praxis to be implemented in the CHSC routine.

2. Methods

Design

This feasibility study was conducted to assess and develop the New Families program. A descriptive, qualitative method with data triangulation was used to address the four areas of interest from the perspective of the users (the families) and the providers (the PHNs). The objective of the data triangulation was to enhance confidence and reduce uncertainty of interpretation in the findings, and provide a more comprehensive picture of the results (Bryman, 2004; Heale & Forbes, 2013).

Study setting and participants

Stovner District in Oslo municipality in Norway has 31000 inhabitants with approximately 400 births annually, of which 37 % were to first-time parent in the study period between March 2014 and March 2016 (City of Oslo, 2019). The CHSC has 8 PHNs employed (full time equivalents), and around 12 000 consultations annually.

Three PHNs from the Stovner CHSC participated in this study. The PHNs had on average 24 years’ experience as a PHN, and had worked in the district in a nurse capacity an average of 20 years. Through a period of two years, they conducted home visits to all first-time families in the district. During this period, the PHNs participated in seminars, bi-weekly meetings with the program coordinator and one of the researchers, and were actively involved in the monthly project group meetings (Leirbakk et al., 2018). The intention was to track the process, share experiences, viewpoints, and identify program facilitators and challenges.

All program participating families were informed by the PHN at the first home visit of the possibility of being asked to give an interview at a later point, but that this was not a program participation obligation. At the end of the two-year period, six families, six mothers and two fathers, were randomly drawn among participating families with a child above 1.5 years old, for in-depth interviews. Of the eight participants, four had Norwegian ethnic background, two had immigrant parents and two were immigrants. At the time of the interview the median age among the mothers was 33.5 years. Among the fathers the median age was 40 years. On average, these families had received 10 New Families program related home visits, range 2 to 20.

Data collection

Focus group discussions with the PHNs was conducted at three stages during the study period: one prior to starting the study, the second 6 months into the study and the third 18 months after the PHNs started conducting the home visits (Table 1). The focus groups covered topics such as: expectations, experience and challenges of conducting the program, differences between home visits and the regular CHSC consultations, aspects related to the home visit, and reflections related to program integration in the existing CHSC services. The discussions were all conducted at the district CHSC, and lasted two hours.

Data from the six participating families was collected about 2 years after the study started, and consisted of in-depth, semi-structured interviews. The purpose was exploring the acceptability and experience with the New Families program. Four of the interviews were held in the homes of the families, and two at the Stovner CHSC based on family preference. The interviews lasted less than 2 hours and addressed: expectations of the home visits, experiences with the home visits, received support and assistance, experience with the regular CHSC consultations, and the relationship with their PHN (Table 2).

All interviews and focus groups were led by a researcher and taped. The New Families program coordinator was note taker. The recordings of the interviews were deleted after transcription, and all person identifiable information were anonymized in the transcripts. The interviews were read by all researchers. The statements from the interviews used in this paper have been translated to English.

Data analysis

The interviews were transcribed verbatim and analysed using the six phases of thematic analysis recursive process, described by Braun and Clarke (2006). The six phases are: 1) familiarization - reading and re-reading the data. 2) coding – generating pithy labels for important features relevant to the research question(s), 3) developing themes – constructing meaningful and coherent themes, 4) reviewing themes – a recursive process to control that the themes...
relate to the data and between the themes 5) defining themes – renaming concise and informative themes 6) writing – contextualize the data (Braun & Clarke, 2006).

Ethical considerations

In the multiethnic Stovner district, 74 % of the first-time mothers during the study period were immigrants or had immigrant parents (Statistics Norway, 2016), so language and culture could pose an ethical challenge. The PHNs used an interpreter when needed and consented by the families. It was ensured that participants were given information about the study and that they understood that accepting being part of the New Families home visits program was not obligatory, and that declining would not affect current or later CHSC consultations or services.

All participants received oral and written information regarding the intention of the New Family program study and written consents were obtained. Those randomly selected to be interviewed receive additional informed consent emphasizing their rights to withdraw their interview. The study was assessed and approved by the Norwegian Regional committees for medical and health research ethics (register number: 2015/1613/REK sør-øst C) and The Norwegian Centre for Research Data (register number: 53379/3/AH).

3. Results

The findings are triangulated and presented concurrently. By exploring and presenting the PHNs and the families experience within four areas of interest in this study: 1) the acceptability, 2) demand and 3) practicality and 4) integration of the New Families program, we aim to provide a deeper understanding and validation of the findings. The fourth area: integration of the New Families program to the CHSC, is presented in table 3 to 5 in relation to the identified themes relevant to a future integration. The suggested blueprint for the New Families program implementation evolved with prompts and schemes, and will be discussed related to the initial program framework and foundation (Leirbakk et al., 2018).

1. During your pregnancy you were contacted and asked by a PHN if she could visit you in your home. What were your expectations prior to the first home visit?
   a) How was it to have a PHN visiting? Was the visit as you expected?
   b) In retrospect, what has been positive by having home visits by a PHN?
   c) Is there anything you have experienced as challenging by having home visit by the PHN?

2. You have experienced both home and CHSC visits with your PHN. If you compare the two meeting arenas, can you tell me how they have been, different or similar?

3. How would you describe your PHN?

4. Have your PHN helped you in any way obtaining contact with other public agencies?
   a) Have you participated or received any support or service, like open day care or a maternity-group?

5. Is there something related to the follow up by the PHN or the CHSC you feel is lacking?

6. If the New Families program should become a regular offer at the CHSC, do you have any thoughts or ideas of are important for us to consider?
   a) Is there anything that should be changed or done differently?

Table 2: Semi-structured interview questions for parents participating in the New Families program development study.
1. What reflections did you have about the New Families program prior to start-up and introduction?

2. How is it to conduct the program? Was it as you initially perceived?
   a) What is different?
   b) What has been most rewarding working in the New Families program so far?
   c) What has been most challenging working in the New Families program so far?

3. What would you say is the greatest difference working as a PHN in New Families program compared to working as a PHN in the regular CHSC services?
   b) Is there something impacting your regular workday as PHN that you have learned from the New Families program development project?

4. What do you think are the benefits for participating families in the New Families program?
   a) Is it difficult for some families to participate in the program? If so, how and why?

5. What is the most important take home message you have learned during this period with the New Families program that is important to carry forward?
   a) What can or should be done differently in the program when implemented in the CHSC?

Table 1: Semi-structured questions for all focus group discussions with the Public Health Nurses engaged in the New Families program development and feasibility study.

Acceptability

"Baby-proofing" the home or being consumed?

Participating in the New Families program was voluntary, but parents still described feeling vulnerable about home visits. This vulnerability was mainly a feeling of uncertainty on the intention of the home visit, and a fear of not being prepared "enough" to become parents, thus not being "approved" by the PHN.

"We discussed what she would be looking for. Is it ok here now, or? Is it healthy to live here? Is she supposed to assess baby safety of our home? Is she to assess if all is ready?" (Father #1)

Some of the parents described the thought of having a PHN in their home as slightly intrusive, but also necessary. They wanted a PHN to see them at home, as they considered her a competent health professional that could guide and support them in a new and unknown phase of their lives. Their initial expectations were that the PHN would give them concrete practical advice, but also inspect to see if the home was prepared for a baby (Table 3).

The PHNs, on the other hand, were more concerned whether or not offering and conducting unrestricted home visits would create a too close relationship with the families. They worried that a too close relationship would blur the lines between the professional PHN and the private PHN, causing the PHN to be consumed by the families, losing the professional focus (Table 3).

The PHNs recruited a total of 222 first-time families during the two-year period. They identified a recruiting process that gradually materialized. The focus of the study was not to recruit all, but hopefully develop a strategy that enabled the PHNs to offer all first-time parents the program. During the study period 41 pregnant women declined participation, which gives an overall participation rate of 84.4 %. The PHNs did note the reason for declining participation, which were: "lack of time", "was moving out of the district" or "did not see the need". The latter was often with an addition of "but will be in contact if change of heart or feeling any need". Although the program recruited prenatally, some first-time parents, who had used antenatal health care services outside the Stovner CHSC, were included postnaturally upon request. The PHNs believed the high participation rate was a clear signal of the vulnerable situation of all first-time families. The many and various emerging questions first-time parents have, resulted in accept and appreciation when given the opportunity to talk with someone outside the family with experience and knowledge about child health, child development, and parenting (Table 3).

The outlook of long-term support was an additional positive aspect facilitating the family's acceptance of the home visits. The parents expressed it as comforting to know that someone would be there by their side, acknowledging the PHN as an experienced and suitable supporter. Although some of the parents initially wondered if the intention of the home visit was to check and see if they were good homemakers and prepared to become parents, - resulting in vigorous cleaning of the house prior to the first home visit-, this changed after the first PHN visit.

From practical to parental

Parents described the first home visit as positively different from what they had expected. The PHN had focused on them, not the home, and they were surprised by how open and honest they had been with the PHN (Table 3). The balance between being professional versus private, which the PHNs had discussed, were easily upheld as the parents regarded the PHN as a health professional, not a private person. The families appreciated the PHNs
competence, experience and willingness to support and guide them. The encounter with the PHN installed trust. Although the PHN was a public employee and a stranger, they trusted her intentions (Table 3).

During the prenatal home visit, the parents especially described how the PHN had initiated a conversation on what kind of parents they wanted to become, and which parts of their own childhood and upbringing they wanted to carry forward as a parent. This was described as an enlightening moment, drawing the focus away from being only practical (baby feeding, diapers etc.), biological (delivery, pregnancy issues etc.) and into so far neglected, deeper and emotional parts of becoming parents.

**Feeling lucky**

As mentioned, the families felt the PHN could be trusted (Table 3). This, they related to the PHNs personal characteristics, and how lucky they especially had been with their personal PHN. All of the six families used the term "lucky". All of our three PHNs were represented within this sample of six "lucky" families. The families were pleased with how their PHN had created trust and had a reassuring and comforting way of behaving, "exactly what they needed". Knowing that this was their PHN, that would follow them for two years, felt comforting and increased the families’ acceptability of the New Families program and intent.

Although the interviewed families, had been recruited in the early phase of the feasibility study and gave their input retrospectively, the PHNs in their second focus group discussion (six months into the study), stressed the need to conduct home visits on the family’s term. The PHNs felt the single most important outcome of the first home visit was to create a relation, to get to know each other. In order to focus on gaining the parents trust, and if, in order to accomplish this, they had to leave all issues or the “agenda” to the CHSC visits, this had be a deliberate choice and form the PHNs attitude during the home visit (Table 3).

Table 3: Integration of the New Families program in the Child Health Service Clinic- a blueprint of the acceptability.

<table>
<thead>
<tr>
<th>Acceptability</th>
<th>Families</th>
<th>Public health nurses (PHN)</th>
<th>Blueprint for future integration</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Support from someone competent</strong></td>
<td>× &quot;I thought it was ok to have somebody alongside that knows about infants and all those things&quot;</td>
<td>× &quot;They regard us as PHNs. Those that use me more, do so because of need. They adjust it&quot;</td>
<td>× The competence of PHNs is supporting the delivery of the program</td>
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<td></td>
<td></td>
<td>× &quot;I think it is ok to be personal, but not private. It is actually easy&quot;</td>
<td>× Parents accept a competent health professional to guide and support them prenatally at home</td>
</tr>
<tr>
<td><strong>I trust her</strong></td>
<td>× &quot;I could open up at once, actually. I felt I could trust her, and I raised a special situation there and then. It was good having somebody to talk with&quot;</td>
<td>× &quot;I hope and believe that they feel it's personal and not private. That this also makes the threshold for contacting less, that they feel they know me and can tell what’s troubling them&quot;</td>
<td>× Trust and credibility are the foundation for building a PHN relationship with the family.</td>
</tr>
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<td></td>
<td>× &quot;A little cautious and expectant, that was the first meeting with the PHN, but it gave trust and credibility&quot;</td>
<td>× &quot;You are not in the home during pregnancy checking off on a form. You are in the home to build a relation&quot;</td>
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</table>

**Acceptability and Blueprint for future integration in CHSC**

In Table 3 we highlight the themes of support and trust within the New Families program. The importance of receiving support from a competent professional is relevant for future staffing within the New Families program securing the family’s acceptance of the program. As the PHN maintained her professionalism in the home, the families perceived her as competent and credible. The PHN focused on building a relation to the individual family prenatally and had no other agenda. Keeping that focus on the prenatal home visit should be highlighted if integrating the program in the CHSC.

**Demand**

**The transition from "a child" to "your child"**

Although a qualitative study, the summary experience expressed by the PHNs when participating in the third focus group discussion stemmed from a very high number of visits. A total of 1109 home visits to 222 first-time parents was conducted in the New Families program during the two-year period. The average was 4.5 visit for each family, with a range from 1 to 25 visits. This number is excluded the telephone contacts. It is important to add that the majority of families needed few visits and few families needed intensive home visiting. In addition, the guideline of the Norwegian CHSC recommend a home visit within the first ten days postnatally, to which the CHSC in Stovner District adhere (Norwegian Directorate of Health, 2017). Thus, all participating families received an additional postnatal home visit by their PHN beside the New Families home visits, and this is not included in the above overall number of home visits. The PHNs concluded that the universal approach directed at all first-time families did not put an enormous burden on the PHN resources. The PHNs described tailoring and intensifying the dose of support through home visits as a synergy result of what they defined as necessary and the
family's needs or demand. In this way they were able to be differentiating needs in collaboration with the families, without any initial stigmatizing while reaching a larger group of families in need of support.

The first prenatal home visit in the New Families program often lasted 1.5 hour, while the following home visits were about one hour. Before the first home visit, the PHN expressed a desired attendance, if possible, of both expecting parents. It was important to equally include and acknowledge the father. Through their practice as a PHN in this multiethnic district, the PHNs had seen how having a baby could change the dynamic in the family or alter the relationship between the parents (Table 4). This was one of the reasons why they advocated for a universal program. They had experienced how the birth could change low risk, well-educated expecting parents, into a family in need of substantial support and assistance (Table 4). One of the mothers described in the interview how she felt unprepared after giving birth, even if she had worked with children her whole life. Although she believed she could never be fully prepared for the transition from a child to her child, she was not prepared to leave the hospital after the birth with a baby.

"I did not think about how it would be to have him in my arms. How when I got to the hospital, it would be there. Suddenly you have something with you home. It, I did not have too much time to be afraid of it." (Mother #2)

Initially, the PHNs anticipated a string of demands and expectations from the families without time to prioritize, but this regulated itself (Table 4). Often the family's expressed needs consistent with what the PHN observed. The growing relationship and collaboration with the families increased the PHN opportunity to offer additional support and information based on her knowledge of the individual family. Recognizing the family's strength and resources was an important part of the home visits, as the PHN believed the family would be empowered by acknowledging what they had, instead of looking outwards for what they were missing. When the PHN knew the individual situation, she could also target the offered support and services accordingly.

"We are so close up (in the home). The wish to provide more increases. The small successes become more evident, whether facilitating space in a day care or a slot in a Norwegian course. It becomes more precious when you actually see the impact" (PHN #2)

The PHN knows me and my history

All interviewed families described their relationship with the PHN as close, caring and supportive, and expressed how they felt seen and met as individuals by their PHN. For one of the mothers the PHN had been especially important, and when asked how she would describe her PHN, tears ran down her face. When she had moved to another district, she had gotten permission to continue using the CHSC and the PHN in Stovner district (in Norway you usually use the CHSC in the district where you live).

'It was a rough period between the father and me, where the PHN supported me. The Child protection agency came, and she was there. -You have nothing to fear, she said. - That was very good, as she said, - do not worry you have done nothing wrong-. She was there, on all the levels, through the whole ordeal. I was so happy it was an outsider that was there, but who knew me and what I represented, what I had done and could be my advocate" (Mother #5)

In this particular case, the strong and trusting relationship with the PHN empowered the mother, and she felt confident with her maternal skills.

'I was in a way mentored by her (the PHN)" (Mother #5)

When the families were asked why they had confidence in the PHN and felt supported, they gave the following characteristics of the PHN: humble, listens, credible, caring, present, reassuring, comforting, confirming and professional. During the study, the PHNs acknowledged how having a trusting relationship with the families, improved the quality of their service and support. They also trusted the parents to make contact if they were in need.

Table 4: Integration of the New Families program in the Child Health Service Clinic- a blueprint of the demand.
Table 5: Integration of the New Families program in the Child Health Service Clinic- a blueprint of the practicality.
### Practicality

#### Families

<table>
<thead>
<tr>
<th>Having an expert to talk with</th>
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<tbody>
<tr>
<td>X &quot;She became our expert on everything. We talked with her about anything&quot;</td>
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<tr>
<td>X &quot;I got answers to all I pondered on, I felt secure. She gave me advice when I was worried.&quot;</td>
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#### Public health nurses (PHN)

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<th>Blueprint for program integration</th>
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<tr>
<td>X &quot;You have the opportunity to give more than at the CHSC – because you know more&quot;</td>
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<tr>
<td>X &quot;I experienced acceptance and feeling of relevance of my advice. Things got better&quot;</td>
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#### Availability

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<th>Availability</th>
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<td>X &quot;The PHN has been super – always available – no matter silly questions.</td>
</tr>
<tr>
<td>X &quot;I sent the PHN a message, saying I was scared. She gave me an option to come to the CHSC or her coming home the next day. It was a fast response&quot;</td>
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#### It is easier at home

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<th>It is easier at home</th>
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<tr>
<td>X &quot;It is more freedom, it is easier at home&quot;</td>
</tr>
<tr>
<td>X &quot;Home is easier, you can sit and breastfeed, just let her in and then continue&quot;</td>
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#### A stressing and formal setting at the CHSC

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<th>A stressing and formal setting at the CHSC</th>
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<td>X &quot;You get so nervous at the CHSC. It is your first child&quot;</td>
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<tr>
<td>X &quot;There (at the CHSC) I felt the other mothers staring at me. My first child... it was difficult, I did not know what to do&quot;</td>
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#### Demand and Blueprint for future integration in CHSC

In table 4 we have highlighted how first-time families are in a vulnerable situation by becoming parents for the first time. This is not based on risk factors, but by the nature of facing a new and unfamiliar situation. All the interviewed parents described a need of support and help. Although the degree of need varied, this supported a program directed universally at all first-time families. When the PHNs used a salutogenic perspective during the home visits, the parents described being in control and receiving support that was directed at them as individuals. They felt seen and listened to by a PHN who knew the system and advocated for them if necessary. The table also presents quotes describing important themes for the prenatal home visit and the use of communication styles comparative to Motivational interview and Empathic communication which will strengthen the program praxis if integrated in the CHSC.

### Practicality

#### Just a call away- the availability of the PHN

The families expressed that the PHN was their expert on subjects related to parenting and issues connected with the child (Table 5). They used her as a source of information, because they recognized supportive and trustworthy guidance. Her advice and guidance reassured and empowered them in their decision-making process by validating their concerns and worries, ranging from not knowing how to dress the baby for winter weather, to feeling helpless or depressed and in need of referral to other health or social services. The PHN provided a safety net for them, someone who would support and follow them along their personal journey as new parents and as a new family. Their experience of using the PHN as support and as an expert over time confirmed the PHNs capabilities and knowledge while increasing the level of trust. Another, equally important aspect, was the feeling of an available PHN. The families expressed experiencing a PHN that was readily available and had time for them. Her actions confirmed the PHN as true to her words of being there for them when needed (Table 5).

The PHNs described how they felt how the distance between them and participating families over time decreased compared to families they worked with who had a childbirth prior to the initiation of the New Families program (table 5). One of the reasons was the use of mobile phones. The PHNs were each given a mobile phone, and all 222 participating families got their direct number. Having the ability to easily be in direct contact, was considered important and increased the experience of the program as a service of higher individual quality. Earlier there had been a barrier to direct contact, as the families had to call the CHSC, be transferred to the PHN, who often were busy or not available. The individual mobile phone number felt more personal and direct, and
increased the opportunity of the PHNs to give support and help at the right time. The importance and availability of a direct number to the PHN, was positively confirmed by the families (Table 5). The PHNs were initially worried this would be an immense increase in workload but experienced the opposite. Trusting that the parents would make appropriate contact, if needed, was something that grew on the PHNs throughout the study period (Table 5). At the CHSC, the pre-scripted (vaccines or child health assessment) short consultations could result in the PHN feeling a lack of time to identify appropriate strategies to support the families. The office was perceived as a barrier for relational care. Seeing the families at home gave the PHNs an insight behind the scene, and a window into how the family interacted with the child.

‘And what are they pleased with – what they accomplish in their home. Some of those with limited or marginal resources get a lot achieved and should be proud. It is important to acknowledge this and cheer. They create a wonderful small world.’ (PHN #2)

Although time was important related to availability, time was equally important related to duration of the visits, and the experience of decreased stress in relationships with home visits.

**The formal versus the informal meeting**
The families were asked to contrast the consultations at the CHSC with the home visits. They described time constraints as a barrier when at the CHSC. At home they felt the PHN as more patient.

“She was so much more patient with everything at home, she was not efficiently going through all things. She was patient, that was good, as we got the important things done, and we did it together.” (Mother #6)

An interviewed father described the setting at the CHSC as “formal”, versus “informal” at home. He felt that at the office, the agenda was stricter with a “check list approach”, while at home they as parents had increased control of the agenda. Being at the CHSC as a first-time parent felt as being on display for all other parents visiting the CHSC, and this was experienced as challenging and stressful (Table 5). One mother described feeling as a bad parent if the child started crying in the waiting area, which increased her level of stress, in turn affecting her crying child even more, creating a vicious cycle. Although the home was a private setting, with the PHN as an official representative, the families felt more at ease and comfortable talking with the PHN there. They expressed feeling comfortable, relaxed and more in control at home (Table 5).

**A program directed at whom?**
The Norwegian CHSC is free and open to all women, families and infants in Norway. Prior to starting the current feasibility study, the PHN assumed the New Families program would be directed at high-risk families and feared that some families could feel stigmatized if they were offered a program based on risk factors, resulting in difficulties to recruit. By offering home visits to all first-time families, the PHNs felt it was easier to tailor their service to the family’s need, since none of the families initially were recruited based on risk factors. The families could use the home visits to discuss, talk or practise on anything they regarded as important. During the interviews, none of the parents participating in the New Families program described feeling stigmatized. They all recommended the continuation of the program, and emphasized the importance of early, professional support for new families, and regarded the home visits as an important element of the program (Table 5).

Insert Table 5 here

**Practicality and Blueprint for future integration in CHSC**
Related to practically the following themes were deemed important when integrating the New Families program in CHSC; 1) The home as a setting bridges the integration of the family to the CHSC and are in some situations (especially the first months prenatally) preferred by the families above the CHSC. The families feel more in control in their home and the PHNs describe differentiating the families need was easier at home compared to the CHSC. 2) The New Families program has to emphasise the importance of building a strong and trusting relationship with a continuity of care between the family and the PHN. A strong, supportive relationship seems to increase the possibility of the family reaching out to the CHSC and the PHN when needed, and for the PHN to give a tailored and harnessed support and guidance when she is close to the family.

**Why the need of a Blueprint for Integrating the program to the CHSC?**
The PHNs felt it was important that the PHNs provide long-term follow up of the families through the CHSC, to ensure a relational continuity of care. They expressed being content with the mix of home visits and regular CHSC consultations. Integrating the program in the CHSC, implied that all other PHNs at the CHSC needed to learn how to work according to the New Family program. The three PHNs used two years when adjusting to the new way of working and felt transferring the program to all PHNs at their CHSC called for a blueprint. The blueprint would be a description based on schemes and prompts, but also incorporating the foundations of the program (Leirbakk et al., 2018). In addition, there needed to be specific training and a follow up of all PHNs new to the New Families program concept and ideas.

‘I think mentoring is important if we are to implement this. We cannot expect them (other PHNs) to just do it, what we have worked on the last years. I think we need to develop a system that use our experience.’ (PHN #3)

The PHNs described the New Families program as suited to be integrated in the ongoing CHSC. The program is in line with the mandated national guidelines of the CHSC, the current formal education and training all the PHNs at any CHSCs in Norway have. What separated the New Families program...
from the general services of the CHSC, was the increased focus on and the flexibility of the dose of PHN interaction with first-time families. The feasibility process and development of the program resulted in evolution of a New Families program manual.

4. Discussion

The universal CHSC with its statutory service guidelines has a solid foundation in the Norwegian community. The current study describes a sustainable and synergistic program of praxis using the perspectives and experiences from the PHNs who conducted the home visits, in addition to the voice of some participating families. It is important to keep in mind, the interviewed parents had no prior experience with the Norwegian CHSC system or with PHNs, as they were all first-time parents. The intention of the New Families program was to develop a salutogenic early home visit program with proportionate universalism, aimed at mitigating the widening health inequality gradient in the Stovner district over time. By utilizing the competence and professionalism of the PHNs to develop the praxis of the program, the program would evolve bottom-up and avoid a potential theory-practice gap (Meyer, 2000). As the program was to be integrated in the CHSC, soliciting practicing health professionals who were closest to the users and the system, was paramount. The PHNs would define and ensure the prospective of the program to be implemented in the CHSC. The triangulation of their experiences with the feedback of participating parents identified the core aspects of the New Families program.

Salutogenic home visit program

At the inception of the study in 2014, the PHNs were challenged to adapt a salutogenic focus. The salutogenic focus and the proposed theoretical framework of the program was directed at increasing the parent's self-efficacy, helping identify resources and strengths, and being solution focused (Leirbakke et al., 2018). Thus, ultimately affecting parental skills securing a healthy child development with long-term benefits. In a later review, Cowley et al. (2015), suggested that a successful universal health visiting service needed to be salutogenic with an individual approach, in order to have the potential to promote health and shift the social gradient of health inequalities. From the perspective of the Norwegian CHSC, founded on an universal agenda of health promotion and prevention, an salutogenic theory would facilitate the integration of the New Families program.

The PHNs described the prenatal home visits and having a direct communication line to the parents, as a fundamental shift in their professional role as providers of health promotion and prevention services. Studies on home visit programs have linked reassurance and positive reinforcement to program success (DeMay, 2003; Zapart, Knight, & Kemp, 2015), and the interviewed families in this study described the ability of the PHN to be close, available and caring, yet professional. The PHNs believed the salutogenic focus during the home visits increased the parent's acceptance of the support and assistance. Furthermore, the salutogenic focus created a positive foundation to build a trusting relationship. This was reflected in the way the parents described their PHN, they all felt in luck by the specific PHN their family were given, although randomly assigned. Having a salutogenic focus seems to play an important role for the delivery of support or assistance in the New Families program and was experienced positively by the families. Compared to the CHSC setting, the informal setting at home decreased the authoritative role of the PHN and the strict agenda of a CHSC visit, without interfering with the PHNs professionalism. As highlighted in earlier studies (Bryans, 2005; Plews, Bryar, & Closs, 2005), the home environment presented a unique opportunity for the PHN to identify family needs and interaction.

Proportionate universalism

The statutory visits at the CHSC include very standardized assessments and vaccines (Norwegian Directorate of Health, 2017). The choice of the proportionate universalism concept resonated well with the Norwegian PHNs experience of a need for differentiating the services offered within the rather rigorous national CHSC program (Marmot & Bell, 2012). The New Families program concepts gave the PHNs the opportunity to increase their availability and tailor the support in the homes of the families proportionately according to the need. It was only a few families that needed a large number of home visits, the majority had less than four visits. This was experienced by the PHNs as providing a higher quality of care, which in turn positively affected the continued follow up of the families in the CHSC. Acknowledging the need of parents to be in control and treat them with respect, is considered a truly cooperative relationship (Jamrozik & Nocella, 1998), and Cowley (1991) described how there is a fine balance between seeking to educate while respecting the parents’ choice.

The collected and analysed data in this study revealed how offering home visits to all first-time families, contributed to a program perceived as mainstream and for all, possibly reflected in the high participation rate. It also underscores a need for early support to first-time expecting parents. When all first-time parents were offered home visits from 28th week gestational, the program avoided parents feeling stigmatized or labelled as high risk. Although the severity of vulnerability is greater for children living in lower socio-economic status families (Marmot & Bell, 2012; Marmot, Friel, Bell, Houweling, & Taylor, 2008), our universal approach disclosed a need for additional support and assistance within higher socio-economic status families. This translate into an increased opportunity for equitable provision to families, as the majority of vulnerable children live in middle class families (Marmot & Bell, 2012). It has been argued that employing a universal approach of home visiting programs by professionals is not cost-effective (Krugman, 1993). However, long-term follow up of our study could be contrary to such a claim. Given the opportunity of a proportionate universalism concept approach to all first-time families in the district, the PHNs in collaboration with the families differentiated the program dose. A recent early intervention home visit program was conducted in Sweden with proportionate universalism (Burström, Marttila, Kulane, Lindberg, & Burström, 2017). However, their definition of proportionate universalism was to conduct and offer five home visits to all families in a deprived district. Although the program was positively evaluated by both the staff and the families, their main aim was to convince the policy makers to provide the extra needed resources to continue the intervention (Burström et al., 2017). What our study describe is how a universal approach with proportionate universalism is possible as families with limited need of professional support do crave unsubstantiated support.

Blueprint for integration in the current CHSC

In the current study, health providers as well as participating families, confirms the acceptability, demand, practicality and feasibility of integration of a
universal early childhood home visit program, New Families, in the Norwegian CHSC. The feasibility study harnessed a home visiting practice characterized as praxis oriented, where the PHNs embraced a salutogenic approach, and demonstrated how families, when given support and guidance, experienced a trusting relational continuity of care. As described in the results section the PHNs gradually felt a need to develop a blueprint for integration of the New Families program in the CHSC practice. Implementing the program in the current CHSC would avoid program isolation by framing the intervention in a larger national system, which is appropriately financed and resourcefully organized (Richter et al., 2017).

The PHN was experienced by the families to embody a set of values, skills and attitudes, all described by the families as important factors of the New Families program they received. Although the PHN was a professional and public representative of the Norwegian CHSC system, their availability, professional guidance and support, facilitated a personal, trusting and relational continuity of care with the families.

Haggerty et al (2003) described how the relational continuity of care “bridges not only past to current care, but also provides a link to future care” (p.1220). They emphasis in the review the importance of being aware of the differential outcomes experienced by the patients/families and the provider/health professional of the experience of continuity of care which fit some of the statements the parents and PHNs made in this study. Parents described how a long-term care by the same PHN in the New Families program and the CHSC provided a sense of coherence and predictability. For the PHNs, a continuity of care increased their level of knowledge and information about the families, which positively affected their capability to tailor the service and their professional competence. Tuominen et al (2014) examined the association between a relational continuity of care and utilization of the CHSC, and found that a relational continuity of care increased parents’ satisfaction with the CHSC. The PHNs offered home visits more frequently to families when a relational continuity of care existed. The prenatal instigation of the New Families program allowed the relationship between the expecting parents and the PHN to have a head start, by bridging the relational continuity of care from the expecting parent to the parent. By focusing on extending and strengthening a system that works and acknowledged by its users, the potential for creating positive outcomes increases (Britto et al., 2017; Richter et al., 2017). When the same PHN follows the family in the New Families program and the CHSC, a trusting relational continuity of care can be provided until the child starts in school, and can counteract program participants feeling of ‘abandonment and loss’, as Butcher et al (2014) described.

The experienced quality of the forged relationship seems to be important. As the families felt the PHN was genuinely interested in supporting them, they continued to use her as an expert. Building a trusting relationship between a family and the health professional is linked to successful interventions (Leirbakk et al., 2019 (in press); Lynn-sMcHale & Deatrick, 2000; Paton, Grant, & Tsourtos, 2013), and by initiating the relationship prenatally, the families experienced the first interaction with the PHN in a setting and at a time when they were insecure, but mentally prepared to reflect on the imminent role as parents.

Motivational interview (Borrelli, Tooley, & Scott-Sheldon, 2015) and Empathic communication (Platt & Keller, 1994) are acknowledged communication strategies which the PHNs reported using when conducting the home visits in our study. Both of these methods focus on positive reinforcement using a reassuring communication through open questions from a strength-building perspective. Enforcing these methods, when implementing the New Families program in the CHSC, can strengthen the PHNs ability to have an empowering emphasis when interacting with the families. Consequently, harnessing empowering outcomes for the parents, such as positive parental behaviors and knowledge related to increased competence and confidence (Rautio, 2013). Lack of continuing relationship have been linked to a lack of being confidential, a lack of getting enough help and providing individual care (Tammentie, Paavilainen, Tarkka, & Astedt-Kurki, 2009).

The PHNs in our study felt that if the New Families program was to be implemented in the CHSC, the practical efforts related to the implementation should not be taken for granted, emphasizing training of new PHNs. Although the developed foundation of the program, as described earlier (Leirbakk et al., 2019; Leirbakk et al., 2018), portray the theory, method and duration of the program, new PHNs need to comprehend the importance of building a trusting, relational continuity of care with the families. This is included in the Blueprint developed for the New Families program.

**Limitations and strengths**

It is important to keep in mind, the intention of the New Families program is for parents to become strong, autonomous parents with children who reach their developmental potential and become healthy adults. A pitfall is if early intervention programs, such as New Families, make parents dependent on a health professional, or failing to recognize the tension between support and surveillance when support is provided by a national public health system (Peckover, 2002). A strength of the New Families program is the user involvement of the PHNs throughout the evolution of the program. This ensured a bottom-up development by harnessing the experience and knowledge of health professionals who are closest to the families, the community and the system. However, we are aware the limitation of not conducting a quantitative study including all the 222 participating families, but believe this would not have served the intention of the feasibility study ensuring feedback-loops from PHNs and their families as the program grew and evolved into a program prepared for integration in the existing CHSC agenda and service. The intention of the current study was not to describe program outcomes. The New Families program was built from within, from the voices of the families and the practicing health professionals with years of experience working with families. From an integrating perspective, such a program may have increased the adaptability and acceptability by the families and the system.

**5. Conclusion**

In summary, this feasibility study shed light on the acceptability, demand, practicality and integration of the New Families program in the CHSC in a multiethnic district. The collective experiences from participating families and the PHNs facilitated the evolution of an early intervention program conducive to integration in the current CHSC. Developing a trusting relational continuity of care between the PHN and the family was at the core of facilitating support
and assistance during the home visits. To our knowledge this is the first early home visiting program upholding a salutogenic focus delivered through proportionate universalism, as defined by Marmot (Marmot & Bell, 2012). The universal approach did not consume the PHN resources but resulted in high recruitment and the identification of families from all socio-economic groups in need of support and assistance without stigmatizing or risk labelling.

Abbreviations

CHSC- Child Health Service Clinic  
PHN- Public Health Nurse

Declarations

Ethical approval and consent to participate

On behalf of myself, Maria J Leirbakk, and my co-authors, I confirm that the study was assessed and approved by the Norwegian Regional committees for medical and health research ethics (register number: 2015/1613/REK sar-est C) and The Norwegian Centre for Research Data (register number: 53379/3/AH). All participating families and public health nurses have received oral and written information regarding the intention of the New Family program study and written consents were obtained. Those randomly selected to be interviewed receive additional informed consent emphasizing their rights to withdraw their interview.

Consent for publication

Subjects received oral and written information regarding the intention of the interview and written consent for publication of data was obtained.

Competing interests

There are no competing interests.

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Availability of data and materials

Due to the sensitive nature of the questions asked in this study, survey respondents were assured raw data would remain confidential and would not be shared. In addition, the possibility of recognizing and tracing the respondents’ increases substantial if the context and transcript of the conversations are shared. In addition all available data are in Norwegian.

Authors’ contributions

MJL – conception, design, acquisition of data, analysis and interpretation of data, drafting of manuscript, revising manuscript, final approval.

SD – conception, acquisition of data, analysis of data and final approval

JT – conception, interpretation of data, revising manuscript, final approval.

JHM – conception, design, analyses and interpretation of data, drafting of manuscript, revising manuscript, final approval.

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