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Title

Financial incentives to support first-time young mothers to breastfeed in the UK: a small scale evaluation

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Title

Financial incentives to support first-time young mothers to breastfeed in the UK: a small scale evaluation

ABSTRACT

Background

Women who are young or living in areas of higher deprivation are unlikely to breastfeed. The 'Vouchers for Breastfeeding' Scheme offered women shopping vouchers worth up to £200 if they provided breastmilk to their baby up to 6 months. During 2015-2016, whilst the scheme was being trialled with over 10,000 women, in an adjacent area, the scheme was commissioned and offered to first-time young mothers by a Family Nurse Partnership. We report a small scale evaluation of this first example of the scheme in a real world setting.

Methods

Routinely collected service data and voucher scheme data was collected and analysed. In addition, two researchers interviewed nurses delivering the scheme.

Results

The scheme was delivered between 1.12.15 and 31.3.16. A total of 8 first-time young mothers (aged 17-21 years) applied to join the scheme, 6 of whom claimed vouchers for breastfeeding.

The six nurses delivering the scheme were interviewed and all reported discussing the scheme with their women who had or were due a baby. The nurses thought that the shopping vouchers acted as a reward for the mothers and were keen to continue offering the scheme.

Conclusions

This is the first time a financial incentive scheme for mothers to breastfeed has been commissioned in the UK. The results of this small service evaluation indicate that the scheme was acceptable and deliverable within this setting.

Further research is required to identify how this scheme might be integrated within future services for populations where breastfeeding is not the **cultural** norm.

Keywords: Breastfeeding, Health Visitors, Family Nurse Partnership, Financial Incentives, Conditional Cash Transfers, Behaviour Change

Background

Breastfeeding is the physiological norm and can prevent disease and promote health in both infant and mother in the short and long term [1]. Yet breastfeeding rates in the UK are among the lowest worldwide, resulting in increased preventable illnesses for children and mothers and substantial associated costs to the health service. Because infant feeding is socially patterned, low breastfeeding rates have a serious impact on existing inequalities in health [2].

The Family Nurse Partnership (FNP) is a voluntary home-visiting programme for first-time young mothers aged 19 or under, where a specially trained family nurse visits the young woman regularly, from early in pregnancy until the child is two years old. Mothers are recruited to the programme before their 28th week of pregnancy. Since the commencement of the FNP in Barnsley in 2007, breastfeeding initiation by FNP young mothers has averaged 40.3%, but by 6-8 weeks only 11.6% are receiving any breastmilk. These rates are significantly lower than UK rates (81% for breastfeeding initiation and 34% for breastfeeding at 6-8 weeks) [3].

Financial incentives have been effective in promoting positive health behaviours [4] and there is evidence that financial incentives are effective in promoting smoking cessation in pregnancy [5]. However, there is limited evidence on the effectiveness of incentives for breastfeeding [6].

Researchers at the University of Sheffield are exploring whether offering women financial incentives improves breastfeeding in areas with low breastfeeding rates. This research programme, NOurishing Start for Health (NOSH), is funded by the National Prevention Research Initiative (NPRI) through the Medical Research Council. The 1st stage of the project (2012/13) explored issues around acceptability and developed the NOSH Voucher Scheme with local healthcare providers and women [7, 8]. The 2nd stage of the project (2013/14) tested the feasibility of the voucher scheme in three areas with low breastfeeding rates [9]. The 3rd stage of the project (2015-2016) tested the effectiveness of the voucher scheme through a large cluster randomised controlled trial [10] involving an estimated 10,833 women and 900+ healthcare professionals in 92 wards with low breastfeeding rates in Sheffield, Doncaster, Rotherham, Bassetlaw and parts of North Derbyshire, areas near to (but excluding) Barnsley.

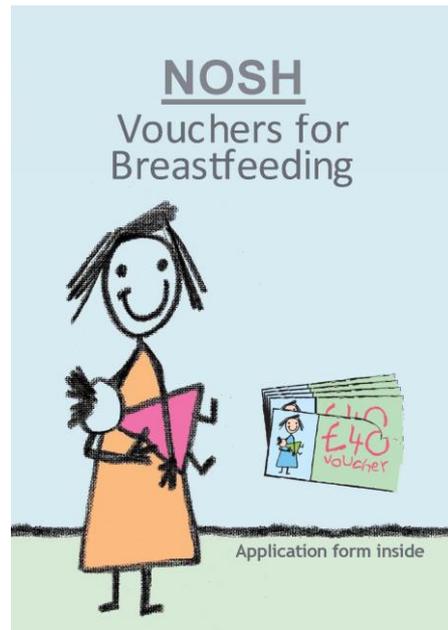
In June 2015, whilst the trial was ongoing (but before the results of the trial were known), the research team were approached by Barnsley FNP service leads who wanted to commission the NOSH Scheme to support their young first-time mothers to breastfeed. They also asked the research team to evaluate the acceptability and impact of the NOSH Scheme within the Barnsley FNP programme.

The intervention

The NOSH Scheme offers mothers shopping vouchers worth up to £120 if they provide breast milk to their baby (exclusive or mixed feeding) up to 6-8 weeks and a further £80 if they continue up to 6 months. Women can claim £40 vouchers at five time points (day 2, day

10, 6 weeks, 3 months and 6 months) if their baby is receiving breast milk. Women sign a claim form at each of the time points and their healthcare provider co-sign the forms confirming that the woman is giving breastmilk to her baby.

Figure 1: Front page of the NOSH Vouchers for Breastfeeding booklet



All the FNP nurses in Barnsley were given information about the scheme and how it was to be delivered. Booklets on the scheme (Figure 1) and application forms were adapted for Barnsley FNP. Women interested in the scheme completed the application form with their FNP nurse who then sent it to the NOSH office on the woman's behalf. The NOSH Office then sent each mother a 'Welcome Pack' - this included a welcome letter, booklet of claim forms, freepost envelopes, and a list of unrestricted shopping voucher options for mothers to choose from ('Love2Shop', and Tesco, Morrisons, Sainsbury's supermarkets).

Mothers who provided breast milk (exclusive or mixed feeding) for their infant could complete a completed a claim form. This was then co-signed by the FNP nurse who sent the claim form to the NOSH Office. Claims were verified by using a list of specimen signatures provided by the FNP team and women were then sent their shopping voucher of choice. In this service evaluation Barnsley FNP paid the full cost of the vouchers (£600 plus VAT - 15 vouchers for £40 each – claimed by a total of 6 women).

It was agreed that Barnsley FNP would offer the NOSH Scheme to FNP mothers for a period of 12 months commencing on 1st December 2015. Approval was also obtained from the NOSH Trial Steering Committee to use the resources of the NOSH Office to administer the scheme for this service evaluation.

The overall purpose of the evaluation was to inform future decisions regarding the longer term implementation of the NOSH Scheme within the Barnsley FNP programme. The objectives were to test if the scheme was deliverable within the FNP service, to assess the

acceptability of the voucher scheme to women and FNP nurses, to assess the impact of the voucher scheme on women choosing to breastfeed.

METHODS

The Barnsley FNP NOSH Scheme was evaluated using NHS routinely collected service data (maternal age, breastfeeding at birth, 6-8wks), as well as routine data on applications and claims collected by the University of Sheffield based NOSH Office. In addition, two University of Sheffield researchers from the NOSH Project (CR and BW) conducted interviews with FNP nurses involved in the delivery of the Scheme in order to explore the impact on the voucher scheme women choosing to BF and the acceptability of the voucher scheme.

In May 2016, one researcher (CR) conducted a group interview during which she made written notes. This interview took place during one of the regular FNP team meetings. The researcher had been invited to attend this meeting by the FNP team leaders in order to discuss the experiences of the FNP team. There were a total of 6 (out of the 8) FNP nurses involved in the delivery of the NOSH Scheme at this meeting. All the FNP nurses had given verbal consent to the group interview. Due to a **recent** decision to decommission the Barnsley FNP service and the fact that many of the team **had just learnt that they** were facing redundancy, this was a sensitive and emotional meeting, and the time allowed for discussion was limited, thus it was not felt appropriate to record this meeting, furthermore, no written consent was sought.

At the start of the meeting CR described the numbers of applications and claims that had been received, and then asked for feedback on the Scheme from the FNP team. CR made notes on the responses from the staff, writing verbatim quotes where possible. One FNP nurse agreed to an in depth interview, conducted by phone in June 2016 by another researcher (BW) and this was recorded and transcribed.

Approval to conduct this evaluation was obtained from Quality Improvement and Assurance team South West Yorkshire Partnership (SWYPT) NHS Foundation Trust on 13th August 2015.

RESULTS

The NOSH Scheme delivered to the FNP was the same as the scheme delivered for the NOSH trial in terms of the value of the vouchers and the type and timing of the vouchers and the wording (how the scheme was framed). However, as a result of discussions with the Barnsley FNP service there were several changes to the scheme in order to ensure that it was deliverable within the Barnsley FNP service.

Firstly, FNP mothers (unlike non FNP mothers) have a dedicated FNP nurse who visits them for an hour every week from week 24 of their pregnancy until their child is 2 years old. This

enabled FNP nurses to be active in supporting mothers to take part in the NOSH Scheme, e.g. FNP nurses decided that they (not the mother) would post the application and claim forms. Whereas the scheme delivered in the trial required the mother to obtain signatures and post the application and claims forms. Secondly, the FNP nurses decided they would be the sole signatories for the application and claim forms, in contrast to the main trial where any healthcare professional could sign. This reduced the agency (number of decisions and actions) required by the mother in order to be able to take part in the scheme [11].

Between 1.12.15 and 31.3.16, when the NOSH Scheme was being offered, the total number of babies born to women under FNP services care was 14. More than half of all mothers 8/14 (57%) applied to join NOSH Scheme. Their ages ranged from 17 to 21 years. Over a third claimed vouchers, 36%, (5/14), with 5 mothers claiming for vouchers for breastfeeding up to 10 days, 3 mothers claiming vouchers for breastfeeding up to 6-8wks and one claiming vouchers for breastfeeding up to 6 months.

All FNP nurses interviewed (n=6) said that they had held conversations with all of their eligible mothers about the NOSH Scheme (i.e. had/due a baby within the time that the scheme was being delivered).

At the group meeting interview one FHNP nurse described an incident where there were other older people from the family “sniggering” in the background, saying:

“you’ll be getting your tits out then” (group interview)

However, for other young first-time mothers the scheme was an attractive option and one that sometimes helped them decide to breastfeed.

“One of my clients, a sixteen year old wasn’t going to breastfeed, she wasn’t going to do it at all and then up until a couple of days before she delivered, her mum said well you might as well try and get that money and then she did it for you know ten, I don’t think she quite went to six weeks but she did it like you know and enjoyed it. She were adamant she weren’t going to do it all the way through [her pregnancy] so for her it changed her mind” (one-to-one interview).

The same FNP nurse stated:

“they [the mothers] were more interested and when we started doing it the couple that I had, they probably started off doing it for the money but when they did it, they quite enjoyed, they enjoyed breastfeeding” (one-to-one interview)

Staff at the NOSH Office did not report any problems with the 8 applications and 15 claims they received and processed. No issues arose with the verification checks for the claims. All FNP nurses interviewed said that verifying breastfeeding was not a problem, due to the unique one-to-one relationship with each client e.g.

“you know they are doing it because you visit them every week from birth And you see

them feed... they're honest because of the relationship" (group interview).

There were no difficulties reported with signing the claim forms for women. One nurse waited around for the baby to be due a feed in order to be sure that the baby was receiving breast milk.

"when I got to it was six weeks I think I wanted to make sure that she was still breastfeeding so I were there quite a while just chatting about the programme and things and saying and then obviously, I didn't want to sign it, I didn't know if baby was feeding, do you know what I mean, I asked her but I sort of wanted to see the baby feeding" (one-to-one interview).

The FNP nurses were positive about the scheme and expressed the view that their clients were more interested in breastfeeding because of the scheme. For example, one nurse said that she thought that the scheme was:

"a good incentive for clients, especially with the age of the clients" (one-to-one interview).

The FNP nurses were generally keen to continue offering the NOSH vouchers for breastfeeding scheme, if the FNP service had continued. But the FNP service stopped taking referrals as from 1.4.16 as the decommissioning of the service had started. They felt that the design of the scheme was good and that the timings for the claim forms was effective, they also thought that the shopping vouchers worked well in that women

"could choose themselves how they wanted to spend it" (one-to-one interview)."

One nurse suggested that in the future

"a DVD should be added with a young local mum talking in language suitable for teenagers – saying how it is normal to breastfeed and that breasts are not just about sex – you need a peer champion"(group interview)

DISCUSSION

This small scale evaluation indicates that the voucher scheme was acceptable to all the FNP nurses involved, who also reported that it was acceptable to many of the FNP mothers. FNP nurses reported that the voucher scheme made the idea of breastfeeding more attractive to young women and helped some of them start breastfeeding who would not have done otherwise. However, these findings should be interpreted with caution due to the small amount of data available and the lack of direct data from the mothers that took part in the scheme.

This is the first evaluation of a financial incentive scheme among a population of young first-

time mothers in the UK. A recent small trial of financial incentives which enrolled 36 low-income breastfeeding Puerto Rican women in the US Women Infant and Children (WIC) program reported increased breastfeeding rates at 6 months [12]. Future research is needed to explore the cost-effectiveness of financial incentives for breastfeeding for this vulnerable population. There is also a need to explore whether a financial incentive scheme would be more beneficial if it was provided as a universal incentive (i.e. all mothers regardless of income or age), compared to it being targeted to a specific population (such as young first-time mothers, or young first-time mothers who are deemed to be vulnerable, or mothers on certain types of benefit). The current UK's Department of Health Healthy Start Scheme provides financial incentives in the form of vouchers for fresh or frozen fruit and veg, plain cow's milk and infant formula worth £3.10 per week and free vitamin supplements during pregnancy up to when the child is four years old. As there is evidence that the inclusion of infant formula as a Healthy Start item encourages early use of infant formula [13], future research should also explore how to reformulate the Healthy Start Scheme so that the scheme encourages breastfeeding rather than infant formula use.

CONCLUSIONS

This is the first time a financial incentive scheme for mothers to breastfeed has been commissioned and evaluated within an existing NHS service in the UK. The results of this small scale service evaluation indicate that the incentive scheme was acceptable to both FNP nurses and over half of the young first-time mothers using the FNP service, and that it was deliverable within an FNP service setting. There is a need for further research to evaluate the cost-effectiveness of vouchers for breastfeeding for young first-time mothers, and to identify how this scheme might be integrated within future services for populations where breastfeeding is not the **cultural** norm.

DECLARATIONS

Funding

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Funding for the vouchers was provided by Barnsley FNP.

Ethics

The purpose of the evaluation was to help inform decisions regarding the longer term implementation of the NOSH Scheme within the Barnsley FNP programme. **This work was categorised as a service evaluation**, and approval to conduct the evaluation was obtained

from South West Yorkshire Partnership (SWYPT) NHS Foundation Trust on 13th August 2015 from the Quality Improvement and Assurance team at SWYPT.

It was agreed that Barnsley FNP would offer the NOSH voucher scheme to FNP mothers for a period of 12 months commencing on 1st December 2015.

Approval was also obtained from the NOSH Trial Steering Committee to use the resources of the NOSH Office to administer the scheme for this service evaluation.

NHS Research Ethics Committee approvals and local authority Research Governance permissions were obtained for healthcare providers to participate and the researchers to conduct interviews. NHS REC reference: 13/WM/0299

Consent to publish

Not applicable

Competing interests

All authors declare they have no competing interests

Authors' contributions

CR conceived the idea for the article and wrote the first draft. All authors contributed to all subsequent drafts of the manuscript.

Availability of data and materials

All the anonymised data available is described fully in this evaluation. No other data was able to be shared.

List of abbreviations used

FNP – The Family Nurse Partnership (FNP) is a voluntary home-visiting programme for first-time young mothers aged 19 or under, where a specially trained family nurse visits the young woman regularly, from early in pregnancy until the child is two years old. Mothers are recruited to the programme before their 28th week of pregnancy.

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