



Incorporating Evidence into Practice to Improve Perineal Care

Keywords:

Perineal care, evidence based practice, guidelines, practice change, postpartum midwifery care

Duration of project:

September 2000 – August 2002

Report received for publication: June 2005

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Summary of project

Implementing evidenced-based guidelines for perineal suturing are insufficient if the theory and opportunity for skills development is not accessible to clinicians. Methods effective in achieving professional practice change were identified and implemented across two sites within one NHS Trust. Changes towards evidence-based practice were achieved, but challenges were also faced.

Background

Women's experiences of perineal pain and suturing of perineal trauma after childbirth impact significantly on their physical and emotional wellbeing. Perineal suturing was reported as painful by nearly 70% of women in a large survey of women's experiences of maternity care (Green et al., 1998). For some women, the experience of suturing overshadowed other parts of the experience of labour and the birth of their baby. Incorporating and utilizing the best evidence available for perineal repair to reduce pain and discomfort has the potential to improve women's experience of childbirth.

From the perspective of healthcare providers, delays and difficulties with healing of the perineum may result in re-admission to hospital for re-suturing and are a source of dissatisfaction with the maternity service and a potential cause for complaint. Clinical governance requires updated and accountable healthcare professionals, evidence-based practice, clinical audit and mechanisms that support the avoidance of risk (NHS Executive, 1998). This initiative was based on the premise that the development, implementation and evaluation of evidence-based guidelines would contribute to clinical governance in one aspect of maternity care. The setting, a University NHS Trust with services on two

clinical sites (site 1 and site 2) in the North of England, provides care to approximately 8500 women per annum and employed 350 midwives at that time. It provides clinical training to undergraduates in midwifery, for career obstetricians and General Practitioner trainees.

There is a growing body of evidence related to effecting changes in professional practice (Haines and Donald, 1998). It has been demonstrated that the introduction of clinical guidelines alone is not usually sufficient to effect changes to practice and that the educational component is key (Bero et al., 1998). Methods that have been demonstrated as consistently effective include interactive workshops and reminders (Haines and Donald, 1998).

Aims of project

The principal aim of the project was to develop, implement and evaluate guidelines for perineal care. In addition to this aim, several other outcomes were envisaged. These included:

- The production of an education package suitable for use with midwives and medical staff at both undergraduate and post-registration levels
- Changes in practice that were both based on evidence and demonstrated by evaluation
- Building capacity within midwifery in respect of the utilisation of evidence and effecting skilled change in professional practice

Project plan

The project plan comprised the following components:

1. A literature review and the development of evidence-based guidelines for practice
2. The development of a pocket-sized resource for midwives
3. The production of an educational package including a video demonstrating the new suturing technique
4. Interactive workshops to support practice change
5. The incorporation of the evidence and educational materials into undergraduate midwifery education to avoid theory-practice gaps
6. Evaluation of change in practice

The project plan was undertaken by the project team and overseen by an advisory group. The project team comprised initially three senior midwives working on the delivery suite of one clinical site at the Trust and a senior lecturer with a remit in evidence-based practice in midwifery. A fourth senior midwife joined the group working from a base at the other clinical site in the Trust and contributed over several months to the project.

An advisory group was convened to provide multidisciplinary input and support to the project. Members were chosen for their expertise and influence,

to support the credibility of the project and to link with all potential stakeholders. The team invited a service- user representative from the Maternity Services Liaison Committee. This representative could not attend any of the meetings of the Advisory Group but was consulted and notified of progress of the group by email, letter and telephone throughout the course of the project.

Literature review and development of evidence-based guidelines for practice

The Cochrane Library and the Cochrane Register of Controlled trials were searched for relevant randomised controlled trials and systematic reviews. The electronic databases MEDLINE, CINAHL and BIDS were systematically searched from 1966 onwards using the relevant MESH terms. This was combined with a key-word search using 'childbirth', 'perineum' 'sutures' 'wound healing' etc. Topics that were sought included repair of perineal skin; suturing of second degree tears; prophylactic analgesia; position of women for perineal suturing; advice related to perineal hygiene; documentation of swab count. Key journals were hand searched to identify additional papers that had not reached MEDLINE and CINAHL.

The papers were critiqued and classified according to the strength of the evidence using the scheme adopted by the Royal College of Obstetrics and Gynaecology. The levels ranged from Level 1a where the evidence was obtained from meta-analysis of randomised controlled trials through to Level IV for expert opinion and committee reports. Use of this classification system ensured that the guidelines followed a format similar to that of the Trust's other labour ward guidelines. Papers identified were also reviewed within the project team for their appropriateness to the UK maternity setting.

This process identified the evidence available to inform the development of a clinical guideline. Once developed, the guideline was peer reviewed, ratified by the advisory group and accepted for inclusion in the Trust's Labour Ward guidelines. A laminated pocket-guide which included the key components of the guidelines was also developed.

Approaches to practice change

It has been demonstrated in non-midwifery settings that the introduction of guidelines alone is rarely sufficient to change practice (Bero et al., 1998). Interventions demonstrated to be consistently effective in promoting changes in professional behaviour include interactive educational meetings, multi-faceted interventions and reminders (Haines and Donald, 1998). Through the development of a workshop programme, these methods were adapted for use in this initiative.

The workshops were developed by the project team and the content was based on pre-identified learning outcomes. They included the following:

- a quiz (self-administered and self-reviewed) to refresh knowledge of anatomy and physiology
- a presentation and discussion of the evidence
- introduction of a tool for classifying perineal trauma
- a video demonstrating good practice
- opportunity to practice skills using a trainer model
- discussion of issues related to documentation, clinical risk management and professional accountability

The workshop format used a range of teaching methods and allowed time for discussion, reflection and development of practical skills in a supportive environment with skilled facilitators available. A simple method to evaluation was planned and midwives were allocated to workshops to achieve, if possible, a mix of work bases (hospital and community), experience in suturing and clinical site. Priority was given to those midwives currently working on or shortly to rotate to delivery suite. An invitation letter was sent with a short reading list and details of where preparatory information could be located (one set of reference materials on each ward/department). It was agreed that two of the clinically based team members would facilitate each four-hour workshop with a maximum of ten participants. On conclusion of the workshops, midwives received a certificate of attendance for their professional portfolio, a copy of the guideline and a laminated pocket-guide to refer to in their practice, described below.

Twenty-five workshops were held. The Trust employs 350 midwives, of whom 231 attended the workshops. This equates to 66% of the total midwifery workforce, with 88 midwives working on the delivery suites attending; this represents over 90% of the labour suite workforce (the priority group). From the 231 midwives that attended, 143 (62%) completed an evaluation form. Overall evaluations were very positive in respect of the format and content of the workshops.

Evaluating practice change

A data collection tool was developed to evaluate practice change. This tool enabled the collection of information related to perineal trauma and seven areas of practice in perineal care; use of two-stage repair; subcuticular suturing; administration of diclofenac sodium for pain relief; advice on perineal hygiene, position adopted by women during perineal suturing; suturing of second degree tears and documentation of swab count. Four of these outcomes related directly to the evidence base and the remaining three were included either at the request of the clinical risk management group (documentation of swab count) or because they reflected best midwifery practice (position and advice related to hygiene).

Two samples of case notes were reviewed; one for births six-months prior to the workshops and the second five months after. The sample comprised 50 consecutive normal births where perineal injury had been sustained and 20 consecutive instrumental births with perineal trauma. The sample size was based on feasibility, when it became clear that maternity IT systems could not be utilised to support this work. Equal numbers of case notes were reviewed from each clinical site and before and after the workshops. No personal identifiers were recorded. Review of documentation was utilised as a proxy measure of practice change as all midwifery care and advice should be documented (UKCC, 1998).

Table 1 provides a summary of the trust-wide practice change.

Table 1. Summary of trust-wide practice change

Perineal care activity performed	% of practice change
Two stage repair	The proportion of two stage repairs increased by 15%
Subcuticular skin repair	3.6% more subcuticular repairs were performed following the workshops
Prophylactic diclofenac	12% more women who underwent perineal repair received prophylactic analgesia
Advice re. perineal hygiene	13% more women had advice on perineal hygiene documented
Use of non-lithotomy position	Documentation of use of the non-lithotomy position increased by 13%
Suturing of second degree tears	17% more second degree tears were sutured
Documentation of swab count	21% more practitioners documented that they had performed a swab count

Changes in practice in line with the evidence base were demonstrated on a trust-wide basis for five of the seven aspects of practice included in the workshops, although a statistically significant change in practice was achieved only in relation to the utilisation of the two-stage repair technique. Changes at a site-specific level were to the order of three aspects of practice at site 1 and five at site 2.

One of the major challenges to measuring changes in practice in this project was the reliance on documentation for evidence. In some cases it was not possible to draw conclusions due to 'missing data' as it was difficult to determine whether there were real changes in clinical practice or changes in documentation practice.

Discussion

A cohesive team formed with complementary skills and the initiative very quickly established a profile, due to the enthusiasm of the clinical members of the project team. The team formed serendipitously due to shared interests in providing women with appropriate perineal care. Unfortunately, this resulted in unequal representation of the two clinical sites thus staff of one site were able to relate far more closely with the initiative and to feel ownership of it through better knowledge and a wish to support the project team.

This project encountered similar issues to those encountered in other NHS based initiatives: a sense of change fatigue amongst clinical staff; little value ascribed to in-house education and pockets of resistance to change that were addressed but not totally resolved. The evaluation of practice change, five months after implementation, took place at a relatively early stage; there had been little opportunity for consolidation of learning amongst workshop attenders and the extent to which any changes are sustained over time is unknown. In addition to the production of a peer-reviewed and evidence-based guideline and the provision of workshops to support the change in practice, there were other significant positive outcomes associated with this work. Team members have accessed a range of different opportunities and developed skills e.g. facilitating

workshops and conference presentations. The initiative has been utilised during visits of the Local Supervising Authority Responsible Midwifery Officer as an example of good practice and the profile of the Trust raised. Issues within the Clinical Risk Management agenda were addressed i.e. documentation of swab counts after suturing; this appeared to increase ownership of the research and the quality of documentation has improved. Awareness of professional accountability has been raised. At colleagues' requests, the team have contributed to discussions on the development of competencies for midwifery staff and related to development of IT systems within the maternity service. The model used also offers a template for other evidence-based practice initiatives, thus building capacity in evidence-based practice in midwifery.

There are also other positive effects from such a project, conducted in a large NHS Trust where the maternity service is provided on different sites but working towards integration. Staff met colleagues from other clinical bases in an environment of shared learning. The initiative encouraged work towards unifying other elements of care and documentation. The team were also approached and asked to incorporate other issues into their work e.g. the challenges of maintaining skills in perineal suturing for community midwives; it was agreed that this remained outside the project remit.

Existing maternity information systems do not always support collection of data, thus considerable time was required for manual data collection by the project team and work incurred for staff of the medical records library. There is also insufficient time within initiatives such as this to develop and introduce Trust-wide documentation for the recording of clinical care, thus changes in practice may have actually been greater than those demonstrated here.

Whilst areas for inclusion in the evaluation had been pre-specified, it was evident during data collection that there was little documentation of midwives' discussion about the evidence with women. This may have been because other areas had received more emphasis but this is an area worthy of further exploration. In future initiatives, casenote review could be complemented by surveys of women to explore their experiences both related to information and procedures. For some aspects of care, a more pronounced change in practice could be expected e.g. in use of Diclofenac for perineal pain relief. The lengthy process required to ratify a new Standing Order may have contributed to this. Whilst practice had changed, some second degree tears were still not sutured in the follow up data collection. The reason for this is unclear. Information linking participation in workshops to attendance on individual women was not available thus it may be that midwives who had not attended workshops persisted with non-suturing. An alternative explanation might be that the evidence related to non-suturing of second degree tears was discussed with women who subsequently made an informed decision to decline perineal repair.

Some groups could not be reached in this initiative, despite considerable effort. One recurring topic in Advisory Group meetings was how to include medical staff as they are also responsible for perineal suturing. It

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was originally hoped that one or two of the medical staff would attend each workshop, which would further develop multidisciplinary learning. When this proved impossible, the next stage was to include the workshop as part of the modular training package for new medical staff. This could not be achieved during the lifetime of the project. However, plans for incorporation in the induction programme for all new medical staff were proceeding on conclusion of the project.

The workshop format was offered for inclusion in the undergraduate midwifery programme. This could not be incorporated within the lifetime of the project due to constraints with resourcing and timetabling.

The challenges encountered include those of a service provided on two hospital sites with different traditions and cultures. At the time of conducting this work, the Trust was experiencing significant changes in structure and management. Despite these, the initiative continued to a satisfactory conclusion. As described in other evidence-based practice initiatives, achieving service user involvement and including student midwives is challenging (Spiby and Munro, 2004).

Funding was obtained to release the project team from clinical duties to facilitate the workshops. Additional funding from the Trust's Staff Ideas Initiative Fund was provided to employ bank staff to cover midwives' attendance at workshops. Despite these additional resources, it was difficult to arrange the workshops. This was due in part to difficulties in freeing-up senior clinical midwives as bank midwives are usually less senior and did not, for example, take charge of labour suite. We discovered that initially midwives were reluctant to attend workshops until they had received positive feedback from colleagues, resulting in a slow start to attendance. Last minute changes in staffing resulted in many midwives cancelling at relatively short notice. This resulted in the team arranging more workshops than originally planned and timetabled. In addition, despite discussion in ward meetings, midwives thought that the workshops would be ongoing and therefore did not perceive an urgency to attend.

Many of the midwives who attended the workshops suggested that they should be included in their mandatory in-service training programme; this was agreed by the Head of Midwifery at the final Advisory Group meeting. It was agreed that the guidelines should be reviewed and the audit repeated to determine whether changes in practice were sustained; these activities fall outside the life of this initiative.

Conclusions

This project aimed to develop, implement and evaluate guidelines for perineal care across two sites within one NHS Trust. The work has been well-received by the majority of midwives and their managers; medical staff supported the work even though it was difficult to integrate them fully; the guideline has been adopted and is included in the Trust's maternity policy; clinical risk management issues were addressed and changes in practice have been demonstrated in line with the evidence over several of the key elements of practice. A model has been identified that could be utilised to achieve further evidence-based practice change in the Trust.

However, it should be noted that this work does not comprise a comprehensive review of all aspects of perineal care. Additional evidence related to perineal care has become available since the completion of this work and such evidence should be reviewed before any components of this work are utilised.

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Further Reading

A copy of the original full report is available to download from the Foundation of Nursing Studies website: www.fons.org/ahcp/completedprojects/perineal.asp

Acknowledgements

- To Paula Noble, for her significant contribution to the project and assistance with communications, workshop development and facilitation
- To the Foundation of Nursing Studies for supporting the implementation and dissemination of this project including providing funding to enable the project to proceed.
- To the Staff Ideas Initiative Fund, Leeds Teaching Hospitals NHS Trust
- To members of the Advisory Group
- To staff of the Medical Records Departments, St James' Hospital and Leeds General Infirmary respectively
- To Professor Mary Renfrew, Director, The Mother and Infant Research Unit, University of Leeds
- Helen Spiby was working as a Senior Lecturer (Evidence based practice in midwifery) at the University of Leeds; the Leeds Teaching Hospitals NHS Trust supported half of the funding for her post for the first few months of the project; the Mother and Infant Research Unit, University of Leeds provided the remaining funding.

How to reference this report

Spiby, H. et al. (2005) Incorporating evidence into practice to improve perineal care. In Shaw, T. and Sanders, K. (Eds) *Foundation of Nursing Studies Dissemination Series*. Vol.3. No. 2.

The Foundation of Nursing Studies Dissemination Series

ISSN 1478-4106
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<http://www.fons.org>
Reg. Charity No 1071117