



Audit of an aromatherapy service in a maternity unit

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Summary This paper reports the results of the audit of a maternity aromatherapy service at a small Midlands maternity unit. The service was introduced in May 2000 and the principal aims of the audit, conducted in October 2002 were to investigate clinical effectiveness, maternal satisfaction and staff training needs. The service has been shown to be effective in normalising childbirth and increasing satisfaction of mothers in respect of their labour experiences. A concurrent audit of staff demonstrated interest and enthusiasm of the service and identified areas for further development. The service was short listed for the Prince of Wales Foundation for Integrated Health Awards for Good Practice in 2003 and awarded a certificate of achievement.

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Introduction

An aromatherapy service was introduced in May 2000 at the George Eliot Hospital Maternity Unit located in Nuneaton, W. Midlands, where approximately 2500 women give birth each year. The service was introduced in response to increased demand from women for more choice and individualised care, in keeping with the philosophy of the Changing Childbirth report,¹ and more recently the Clinical Governance Framework.²

Locally agreed guidelines were implemented in line with the Nursing and Midwifery Council Rules.³ Initially the service was provided for women in

labour, but antenatal and postnatal usage has since increased and aroma-massage classes are now provided.

Two midwife aromatherapists undertook to train the staff and ensure that practice was based on currently available evidence, especially since many essential oils are contraindicated during pregnancy.⁴ Ten specific essential oils plus two carrier oils were covered in the staff initial training, and guidelines pertaining to their use have been devised, which ensures consistency of practice.

Essential oils are administered in water by adding them to the bath or in a footbath, compress, perineal lavage or spray, by inhalation and as massage. Women most commonly select the 'labour kit', comprising a plain bubble bath base containing Clarysage and Frankincense essential oils (1% blend)

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and a massage oil of an almond or grapeseed base and Lavender, Roman Chamomile and Mandarin essential oils (1% blend), which facilitates self-administration, either at home or in the labour ward and encourages partner participation in the process.⁵ A record of name, hospital number or date of birth is logged in a book kept by the midwife aromatherapist and to comply with record keeping requirements, documentation in the woman's case notes is part of her individualised care plan at the time of labour and birth.⁶

Aims of the audit

The audit was carried out to evaluate the maternity aromatherapy services with the specific aims of:

1. providing a profile of patterns of aromatherapy use in pregnancy and childbirth,
2. examining the contribution of aromatherapy in the promotion of maternal well-being during labour by aiding relaxation and alleviating pain,
3. examining effects on the length of labour,
4. evaluating effects on use of other methods of analgesia,
5. identifying outcomes and types of delivery achieved,
6. examining the contribution of aromatherapy to postpartum care,
7. determining training needs of staff, and
8. identifying demand for other complementary therapy services.

Methods

The audit was conducted from May 2000 to October 2002, when the service had been offered for 2 years, 80 women participated.

Sample group 1: Women who accessed the service from its inception to May 2001 (one year) were supplied with a "labour kit" towards term with written and verbal instruction for self-administration during the last weeks of pregnancy and for labour. They were asked after delivery of their babies to evaluate their experience (with the delivering midwife). The completed forms were then returned to the midwife aromatherapist. An effectiveness scale of 0–5 (0 = no help; 5 = excellent) was used to assess the required criteria. The response rate was 50% ($n = 28$) of 60 forms placed in the recipient's notes.

Sample group 2: Women who accessed the service between June and December 2001 were

provided with the "labour kit" and were sent confidential retrospective questionnaires by post. These women also used the aromatherapy mainly in late pregnancy and during labour. An effectiveness scale of 1–10 was introduced (0 = no help; 10 = excellent) after examining the system used by the Trust's Acute Pain service, as it was found that these would be more easily interpreted than the 0–5 scale. As a result it was decided to discount the effectiveness results from sample Group 1, 30 (64%) of 47 were returned.

Sample group 3: Data from this group were collected in early 2002 by anonymous random prospective questionnaires, given to women delivering over a two-month period. The aim was to obtain information from women who had not actively sought out the service in the antenatal period so their first contact was in delivery suite, when it was offered by the midwife as a choice for coping with labour. Mothers in this group used aromatherapy mainly during labour and in the postnatal period. The response rate was low and only 22 (25%) forms out of 88 were returned.

Postnatal use of aromatherapy only became established in late 2001, study numbers in the first two sample groups would have been limited. Thereafter use increased, with the most popular form of aromatherapy in this period being as a premixed bubble bath (Lavender oil increased to a 2% blend).

This blend was predominately used for soreness and tenderness of the perineal area.

Sample group 4: A concurrent audit solely of midwives was undertaken through distribution of anonymous retrospective questionnaires that yielded a response rate of 60% ($n = 40$). The aim was to evaluate staff attitudes to the use of aromatherapy, to measure practice and identify training needs.

Results

The decision to use aromatherapy was primarily due to encouragement from community and hospital midwives and during discussion at parent education classes. Some women had heard about its availability from family, friends and local media.

On analysis of the questionnaires, it was shown that more primigravidae used the aromatherapy service than multigravidae, with the majority of women achieving a spontaneous vaginal delivery and the remainder divided equally between Caesarean section and ventouse/forceps deliveries, of

all these groups a quarter had labours artificially induced (Table 1).

Multigravidae requested less conventional analgesia than primigravidae, although this mirrors trends for labour care without aromatherapy. Transcutaneous Electrical Nerve Stimulation (TENS) and Entonox were used quite extensively by both mutigravidae and primigravidae, but use of Pethidine and epidural anaesthesia particularly appeared to be relatively low. Within the mutigravidae group, only 7% ($n = 2$) used Pethidine compared to 27.5% ($n = 14$) of primigravidae. Epidural use comparisons between multigravidae and primigravidae showed 14% ($n = 4$) mutigravidae versus 31.5% ($n = 16$) primigravidae (Table 2).

Mothers reported a greater sense of relaxation than analgesia whilst using aromatherapy in labour (Table 3), although sample group 3 showed greater effectiveness in easing the pain of perineal and Caesarean section wounds in the postnatal period. This contradicts a study by Dale and Cornwell,⁷ which showed limited physical benefits, our effectiveness scales demonstrated that women’s perceptions in this particular area felt it worked well. This is one area that the team plan to examine again due to the length of time that has lapsed since this particular study.

Following their experiences, the majority of women reported that they would choose to use

Table 1 Delivery outcomes in all patient sample groups ($n = 80$).

Type of delivery	No. of women	% of women
Normal vaginal	65	81
Caesarean section	7	9
Forceps/ventouse	8	10
Spontaneous onset of labour	59	74
Artificial induction of labour	21	26

Table 2 Other methods of pain relief used in all sample groups.

Types of pain relief	P ($n = 51$)	M ($n = 29$)
TENS	24 (47%)	6 (21%)
Entonox (N20+O2)	43 (84%)	16 (55%)
Pethidine	14 (27.5%)	2 (7%)
Epidural	16 (31.5%)	4 (14%)
Water	6 (12%)	3 (10%)

P = Primigravida; M = Multigravida.

Table 3 Sample groups 2 and 3 ($n = 52$).

Score (0–10)	Pain relief Effect			Relaxation effect		
	B/B	M/O	Other	B/B	M/O	Other
1	2	1	0	2	1	0
2	2	1	0	0	0	0
3	3	1	0	0	1	0
4	4	2	1	1	1	0
5	4	8	2	4	3	3
6	3	3	1	3	3	1
7	1	3	1	6	6	2
8	2	3	4	8	2	3
9	1	0	0	0	3	2
10	0	1	0	3	6	2
NR	8	7	13	3	4	9

Women’s assessment of pain relief and relaxation effects of aromatherapy.

Score: 0 = No help; 10 = Excellent. B/B = Bubblebath; M/O = Massage oil; Other = other methods of use; NR = No response.

aromatherapy again in subsequent labours, particularly as it had facilitated a sense of participation in their care, and many would recommend it to friends.

In respect of additional services, mothers reported that they would like to see the development of yoga and relaxation classes, reflexology and a “chill out” zone. Infant massage was highlighted as the most popular choice.

Midwifery staff views

The majority 60% ($n = 24$) of staff that had responded had received training in the use of 10 specific essential oils and were familiar with Trust/NMC guidelines and contraindications involving aromatherapy, the remaining 40% ($n = 16$) expressed a wish to undergo training. 65% ($n = 26$) felt that aromatherapy was effective in relieving maternal pain in labour and anxiety, and 77.5% ($n = 31$) felt aromatherapy aided relaxation and improved satisfaction.

The midwives’ views regarding administration of pharmacological analgesia showed that 25% ($n = 10$) thought Pethidine use had decreased, but 50% ($n = 20$) thought that there was no evidence of any change at all. Epidural use received mixed responses as shown in Table 4. Interestingly most were aware of a rise in the use of non-pharmacological methods of pain relief such as aromatherapy, birth balls, water, etc., which matches actual figures of use of both reported by the mothers.

Table 4 Regarding staff opinions about levels of use of all pain relief options ($n = 40$).

Method	NR	NC	INC	DEC
Pethidine	10	20	0	10
Epidural	14	14	8	4
Aromatherapy	13	1	25	1
Water	15	9	12	4
Labour positions	14	8	18	0
Massage	19	7	12	2
Birthballs	15	5	17	3

NR = No response to question; NC = No change in use; INC = Increase in use; DEC = Decrease in use.

The majority of midwives were confident with using the premixed blends, 87.5% ($n = 35$) used the premixed bath blend and 32.5% ($n = 13$) used the premixed massage oil. Just over 50% used different essential oils, the commonest Lavender, Clarysage and Frankincense. Accessibility was not a problem and staff knew whom to contact about replacement, information and advice, changes have been made to accessibility since inception of the service at the request of staff. The majority of midwives gave information about aromatherapy and integrated it into their care routinely as a pain relief option, and generally perceived that aromatherapy impacted on the reduction of pain and anxiety, especially aiding relaxation and its appearance to quicken labour, though this would need to be studied to verify this claim categorically. Some midwives did complain of headaches when using Clarysage. This was investigated in order to check compliance with guidelines and where appropriate techniques to avoid overexposure were demonstrated and improved effects were noted.

With reference to the postnatal use of essential oils, 50–75% ($n = 20–30$) of midwives were positive about their effects on perineal soreness, bruising, healing and prevention of infection, but a low response rate may have obscured the accuracy of these results (Table 5).

Staff also reported a desire for complementary therapy services for themselves and additional services for mothers such as reflexology and acupuncture, accompanied by an interest of some staff in pursuing training in these areas (Table 6).

Discussion

Aromatherapy has become an accepted part of the maternity services at the George Eliot Maternity unit. The audit aimed to examine specific aspects

Table 5 Midwives opinions on effectiveness of premixed postnatal lavender bubblebath blend on the perineal area and caesarean section wounds ($n = 40$).

Performance	Helped	No help	No response
Bruising	24	2	14
Soreness	30	0	10
Healing	30	1	9
Infection	30	2	18

Helped = had an effect; No help = Had no effect; No response = Did not answer question.

Table 6 Midwives responses to questions asked about other services for themselves and women and training opportunities ($n = 40$).

Question asked	Number answered	Percentage (%)
Introduction of staff service?	36	90
Introduction of other services for women?	19	47.5
Interested in training in new services?	29	72.5

and accumulate evidence to support the continued use of aromatherapy within the unit. There was some replication of the evaluative study by Burns et al.,⁸ the reasoning for this was that as part of our initial set up we sourced and adapted our guidelines from the hospital involved in this particular study. As a result some of their aims matched those we wished to pursue. However, this was a more in-depth study involving a larger sample group of 8050 women over an 8 year period, whilst ours had smaller sample groups over a comparatively shorter period and presented as an audit rather than a study without the inclusion of a control group.

The resulting data of patterns of use had similarities, in the ratios of primigravidae versus multigravidae both presented as a higher use by primigravidae. However, the popularity of the service and the introduction of aroma-massage classes have since encouraged women expecting a second or subsequent baby to participate.

There was variance between the set-up and analysis of effectiveness scales whilst we used a numerical scale investigating relaxation and pain relief effects in labour. The Burns et al. study used the words 'helpful', 'equivocal' and 'not helpful'; they considered anxiety and fear alongside pain

relief, but also separated themes into stages of labour and had a wider range of methods of use. Though the conclusion highlighted that women scored higher for relaxation than pain, there was equality in results at the study unit and both elicited positive responses.

The essential oils used most in the study unit were Lavender and Frankincense, which matched ours with the edition of Clarysage, their usage of Clarysage; scored quite low in comparison.

In another area the study unit investigated efficiency of labour and the use of oxytocic infusions. We did not investigate this fully as part of our audit, but did ask for comments on the perceived effects of aromatherapy on the length of labour. Comments were geared towards a quickening of labour and increased efficiency.

This is where similarities ended; both the study group and audit examined other areas to achieve outcomes in answer to the questions and aims each set initially.

The comments that were received from women highlighted that aromatherapy had helped relaxation and gave the women control, this links with the ethos of the New NHS-modern and dependable report⁹ that we have taken into account women's choices and are endeavouring to meet their needs as well as addressing a changing service.

This also meets one of the features of clinical governance that is evolved around patient-centred care, keeping patients informed and giving opportunities to participate in their own care.¹⁰

As well as being patient centred, the service particularly the aromamassage classes encourage couples or mothers with their intended birth companion to attend and learn a variety of simple massage techniques for use in labour, which are known to reduce anxiety and pain, thereby potentially facilitating progress in labour.¹¹

This partner participation also helps to allay the fears and anxieties of the partner themselves and gives them a tool for interaction and involvement.¹²

An additional theory is because pain is subjective and individualised and difficult to measure,¹³ aromatherapy in the form of labour kits acts as a coping strategy for childbirth and women are possibly able to stay in their own environment longer, where they are not readily available to unnecessary intervention and pharmacological pain relief is not easily accessible.

Since this audit, a Holistic Midwifery Group has been formed. This is a multidisciplinary group of professionals. Our aim is to embrace childbirth as a 'normal' physiological event with the aid of holistic therapies, and we plan to expand on existing

therapies to incorporate shiatsu, reflexology and baby massage in the short to medium term.

The philosophy of parent education within the unit is in the process of complete change. In January 2005 we will be launching workshops adding to the existing aromatherapy workshop where there will be active birth (including optimal foetal positioning, positions for birth), breastfeeding, water birth, yoga-based relaxation, becoming a parent (to include baby massage introductions and emotional issues).

This is for women to be prepared in pregnancy physically as well as mentally through education and support, giving them a belief in their own body's capabilities.¹⁴

A project that is also on our list is an attempt with this holistic approach and the possible use of aromatherapy, shiatsu and reflexology to reduce our induction of labour rate (presently 22%). This project will be closely evaluated and audited in an effort to build an evidence base in this particular area, this also is the aim of all new projects under way which will benefit all midwives and 'normalise' childbirth, empowering women to have services that they lead and are relevant to their needs.

Finally, when the needs of the staff were investigated, confidence appeared to be an issue, but that often occurs with any new skill; confidence grows with continuation of use, support and updating. Staff workshops will run simultaneously with the parent's workshops so there is continuation of themes and new opportunities created for staff to develop new skills. This also meets with the Code of Professional Conduct that a midwife has the responsibility to keep their knowledge and skills up to date but also to acknowledge any limitations.¹⁵

Conclusion

The introduction of aromatherapy has been a building block to support the growth of new planned ventures. This has been supported by agencies such as the Foundation for Integrated Health, according to which the way forward is the statutory regulation of aromatherapy to ensure patient safety¹⁶ and interest groups specific to maternity care, namely the Complementary Maternity Forum. The author is registered with the Aromatherapy Consortium (AC) on their pre-regulatory register, in preparation for the above-mentioned statutory regulation.

The author feels this has been a valuable exercise with positive outcomes, and feels the

aims set out have been met and questions about effectiveness answered.

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