

Delivering Excellence – Emerging themes from a PhD

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CHIEF
SCIENTIST
OFFICE

Nursing,
Midwifery
and Allied
Health
Professions
Research
Unit



Why am I here?



- Thanks to the Royal College of Midwives, particularly Gillian Smith, Director of the UK Board for Scotland
- 1st RCM PhD studentship



The RCM PhD studentship

- Three years full time based at the NMAHP Research Unit at the University of Stirling,
- Supervisors Professor Kate Niven and Dr Helen Cheyne
- Overall Aim: to contribute to our knowledge about the promotion of normal birth



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What intervention in labour has this impact?

- Caesarean section down by 10 - 51%
- Assisted deliveries down by 11 - 57%
- Reduction in analgesia by 13% - 36
- Reduction in women's dissatisfaction with labour experience by 27%
- Increase in Normal delivery rate by 10 - 50%
- Labour is shortened (by 44 – 170 minutes)

Continuous Support

My Emerging Themes

- Support in labour – what is it?
- The impact of support in labour in the promotion of normal birth
- Support in practice – can we observe and measure quantity and quality?
- The development of a tool to measure support the 'SMILI' – Supportive Midwifery in Labour Instrument



What is support?

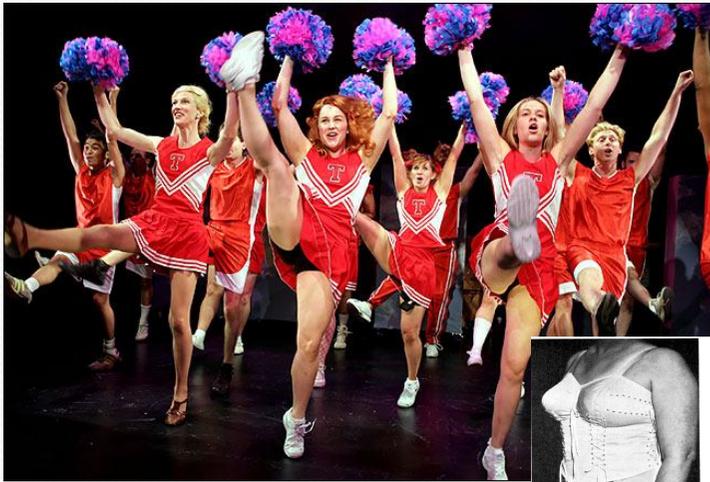


Fig. 35

Normal Uplift



Fig. 36



Fig. 37

Moderate Uplift



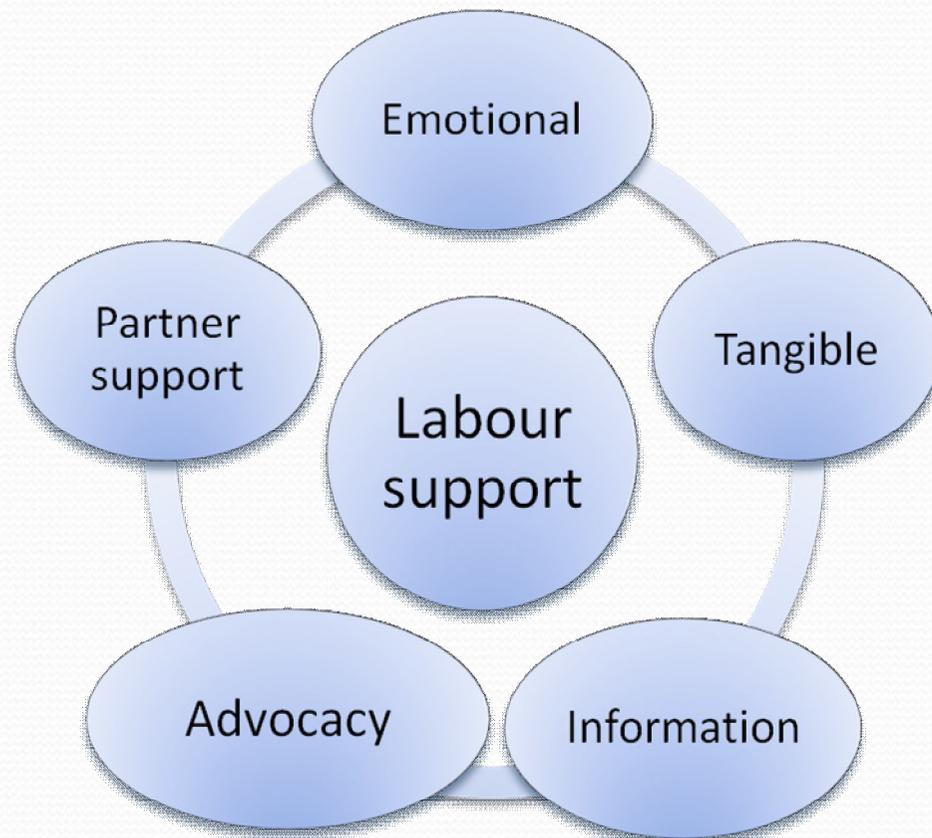
Fig. 38



'Supportive care may be defined as non medical care that is intended to ease a woman's anxiety, discomfort, loneliness and exhaustion, to help her draw on her own strengths and to ensure that her needs and wishes are known and respected. It includes physical comfort measures, emotional support information and instruction, advocacy and support for the partner'

(Simkin 2002)

The Concept of Support



The Soup of Support

The Ingredients

- Presence of nurse/midwife
- Helped to feel in control
- Feeling cared for as an individual
- Praise and encouragement
- Help with breathing and relaxation
- Being treated with respect
- Being kept informed
- Being involved in decisions
- Smiling, building of rapport
- Listening, positive regard
- Soft tone, calm voice
- Friendly, open and gentle
- Physical comfort



Lesser and Keane 1956, Shields 1978, Tarkka and Paunonen 1996, Bowers 2002, Tumblin 2001, Miltner 2000, Matthew and Callister 2003, Watkins 1998, Goodman et al 2004, Lundgren 2005, Newburn and Singh 2005, Larkin and Begley 2009

The Impact of Continuous v Intermittent Support

- Three meta-analyses of the 21 RCTs:
- Hodnett E, Gates S, Hofmeyr G and Skala C (2007) 'Continuous support for women during childbirth, Cochrane Database of systematic reviews'
- Scott et al 1999, Zhang et al 1996
- Around 12,700 women, clear statistically significant benefits
- None in the UK, only two with midwives
- Impact of support is dose responsive



Do I make a difference?

- Radin et al 1993:
- 400 births USA, 31 obstetric nurses
- LSCS rate for individual nurses 0-36%
- Compared the impact of the nurse with other variables on the caesarean section rate: maternal age, gestational age, infant weight, antenatal classes and attending physician.
- The nurse outweighed all the other variables



Yes You
Do!

Support in Practice

- NICE , 2007, lack of research about the components of support
- *'To understand the processes at work more observational studies are needed of the phenomenon of social support in labour'*

(Sandall 2004)



Measuring support

	Type of study	Number of observations	Proportion of time nurse in room	Support Activities	Physical comfort	Emotional support	Instruction/Information	Advocacy
McNiven et al 1992	Work sampling	616 18 RNs 4 shifts every 15 minutes	Not calculated	9.9%	0.3%	2.6%	6.6%	0.3%
Gagnon and Waghorn 1996	Work sampling	3480 3 weeks Every 15 minutes	21.4%	6.1%	1.5%	1%	3%	0.3%
Gale et al 2001	Work Sampling	404 12 RNs 6 shifts Every 9-20 minutes	27.8%	12.4% (0-36.8%)	-	-	8.6%	-
Miltner 2002	Descriptive Observation in room	24 RNs, 75 women 75 x 2hours	58.9%	31.5%	2.8%	7.7%	4%	-
Barnett 2008	Descriptive observation	17 RNs 30 women 75 hours	31%	12.4%	2.4%	4.5%	4.9%	0.3%

Measuring the quality of interactions

- Clear Coded schedule
- Roots in behavioural psychology – mother –baby interaction, teacher-pupil interaction and doctor-patient interactions (Brazelton 1974, Flanders 1970, Bakeman and Gottman 1987 Stiles 1992, Roter and Hall 2006)
- Team of trained observers
- Record and measure verbal and non-verbal expressions



The recipe for the best soup/support

- 'The Less we do, the more we give' (Leap 1998) ?
- 'The more we give, the more we give' (Ross-Davie 2010) ?
- 'The more we adapt, the more we give' (Ross-Davie 2010) – tailor the recipe to the individual woman?



The development of the 'SMILI'

The Supportive Midwifery in Labour Instrument

Concept	Dimension	Observable behaviours
Emotional support	Presence of Midwife	Midwife in room Midwife shows undivided attention Midwife responds to contraction Midwife keeps woman company quietly
Emotional Support	Having a sense of control 'Promoting mastery' (Oakley)	Asking the woman about her feelings/preferences Positive discussion of a birth plan Discussing possible options Reassuring the woman she is doing all the right things

Development of the SMILI

- Computer program co-designed with IT expert Kevin Swingler, to enable an observer in the labour room to record:
- Length of time the midwife is in the room
- Overall tone, position and demeanour of the woman, birth partner and midwife
- Specific behaviours of the midwife (can record more than one at a time)
- Any unusual circumstances or emergencies
- Records for 3 hours every 3 minutes



Position

- Other side of room (>2m), back to woman
- Other side of room
- Near woman 1-2m
- Next to woman (close enough to touch) standing
- Next to woman - sitting

Vocal Tone

- Shouting, harsh, curt
- Shrill, nervous
- Disinterested, flippant
- Neutral
- Light/chatty
- Soft, warm, calm, reassuring
- Jolly/jokey

Demeanour

- Cold, disinterested, angry
- Panicky, anxious,
- Neutral, professional
- Warm, friendly, calm

Facial Expression

- Cold, disinterested, angry
- Panicky, anxious,
- Neutral, professional
- Warm, friendly, calm

Context

Status: Incomplete

Contractions

Woman is
Between
Contractions

Timer

 **2:38**

Other People

Select Person ..

Emergency / Error

Comment on anything unusual here

Midwife Present

Information / Instruction

- Partial labour process information
- Full labour process information
- Partial hospital procedures information
- Full hospital procedures information
- Ignores question or partial answer
- Full answer to a question
- Describing progress - negative or neutral terms
- Describing progress - as positively as possible
- Showing woman and partner facilities
- Encouraging woman and partner to adapt facilities to their needs

Context

Set Context

Status: Incomplete

Other People

Select Person ..



Contractions

Contraction Ends

Woman is having a Contraction

Emergency / Error

Comment on anything unusual here

Comment

Timer



1:59

Pause

Midwife Present



Midwife Leaves

Finish

What's next?

- Pre-clinical validity and reliability testing now complete
- Team of five observers trained in use of the SMILI
- Four maternity units across Scotland recruited
- Six months of clinical testing
- Plan to recruit around 50 women/midwife/birth partner trios
- Three hours of observation recording behaviour intermittently every 3 minutes
- Postnatal questionnaire with women about the support
- Clinical outcomes data to be collected for each observed woman

Delivering Excellence – Emerging themes

- Support is vital to women 'the essential structure'
- Continuous support has measureable impact
- One to one midwifery support key
- 'We can only be sure to improve what we can measure' (Darzi 2008)
- To make the best soup, You need good ingredients, a great recipe, but above all you need a great cook – or two great cooks (or maybe even three)



Thank you!

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